

## CURRICULUM VITAE



Tudor G. Jovin, MD  
August 2023

### BIOGRAPHICAL

**Name:** Tudor G. Jovin **Birth Date:**

**Home Address:**

**Cell Phone:**

**Business Address:**

**Business Fax:**

---

### EDUCATION AND TRAINING

#### UNDERGRADUATE:

| Dates Attended | Name and Location of Institution         | Degree received and Year |
|----------------|------------------------------------------|--------------------------|
| 1981 -1985     | German High School,<br>Bucharest Romania | 1985, Baccalaureate      |

#### GRADUATE:

| Dates Attended | Name and Location of Institution                                  | Degree received and Year                    |
|----------------|-------------------------------------------------------------------|---------------------------------------------|
| 1985 - 1989    | Carol Davila University<br>Medical School, Bucharest, Romania     | Transferred to Heinrich Heine<br>University |
| 1990 - 1994    | Heinrich Heine University, Medical<br>School, Düsseldorf, Germany | M.D. 1994                                   |

#### POSTGRADUATE:

| Dates attended  | Name and location of Institution                                               | Name of Program<br>Director of Program        |
|-----------------|--------------------------------------------------------------------------------|-----------------------------------------------|
| 8/1994 – 1/1995 | North Staffordshire Hospital,<br>Department of Medicine<br>Stroke on Trent, UK | Junior House Officer<br>Dr. Charles Swann, MD |

|                 |                                                                                           |                                                                                            |
|-----------------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 2/1995 – 7/1995 | Hemel Hempstead General Hospital,<br>Department of Medicine<br>Hemel Hempstead, UK        | Junior House Officer<br>Dr. Isobel Williams                                                |
| 8/1995 – 2/1996 | Grantham and District Hospital,<br>Department of Surgery and<br>Gynecology<br>Grantham UK | Junior House Officer<br>Mr. David Valerio                                                  |
| 1996 - 1997     | Intern, Pennsylvania Hospital<br>Philadelphia, PA                                         | Internal Medicine<br>Charles Wolf, MD                                                      |
| 1997 - 2000     | Resident , University of<br>Pennsylvania , Pennsylvania<br>Hospital, Philadelphia , PA    | Neurology Residency<br>Howard Hurtig , MD                                                  |
| 2000 - 2002     | UPMC Presbyterian University<br>Hospital, Stroke Institute, Pittsburgh<br>PA              | Cerebrovascular Fellow<br>Lawrence Wechsler, MD                                            |
| 7/2002-6/2004   | UPMC Presbyterian University<br>Hospital, Pittsburgh PA                                   | Fellow Interventional Vascular<br>Neurology, Michael Horowitz, MD,<br>Charles Jungreis, MD |

#### **APPOINTMENTS AND POSITIONS:**

| Years Inclusive | Name and location of Institution                                                              | Rank/Title                                                   |
|-----------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 7/2002 – 1/2019 | University of Pittsburgh Medical<br>Center, Department of Neurology<br>Pittsburgh PA          | Attending Stroke Neurologist                                 |
| 7/2002 – 2007   | VA Pittsburgh Healthcare System,<br>Department of Neurology,<br>Pittsburgh PA                 | Attending Stroke Neurologist                                 |
| 7/2002-3/2010   | University of Pittsburgh School of<br>Medicine                                                | Assistant Professor of Neurology.                            |
| 7/2004 – 3/2010 | University of Pittsburgh School of<br>Medicine, Department of<br>Neurosurgery, Pittsburgh, PA | Assistant Professor of Neurosurgery<br>Secondary Appointment |
| 7/2004 – 1/2019 | University of Pittsburgh Medical<br>Center, Departments of Neurology<br>and Neurosurgery,     | Attending Interventional Neurologist                         |
| 8/2005 – 6/2010 | University of Pittsburgh School of<br>Medicine, Department of<br>Neurology, Pittsburgh , PA   | Director, Vascular Neurology<br>Fellowship Program           |
| 7/2006-6/2012   | University of Pittsburgh of<br>Medicine, Department of<br>Neurosurgery, Pittsburgh , PA       | Director, Neuroendovascular<br>Fellowship Program            |
| 9/2008- 3/2010  | UPMC, Department of Neurology,<br>Pittsburgh , PA                                             | Co-Director, UPMC Stroke Institute                           |

|                |                                                                                     |                                                                    |
|----------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 3/2008-3/2013  | University of Pittsburgh Medical Center, Departments of Neurology and Neurosurgery, | Co-Director, UPMC Center for Neuroendovascular Therapy             |
| 3/2010-3/2016  | University of Pittsburgh School of Medicine, Pittsburgh, PA                         | Associate Professor of Neurology and Neurosurgery                  |
| 3/2010-1/2019  | UPMC Department of Neurology, Pittsburgh , PA                                       | Director, UPMC Stroke Institute Division Chief, Vascular Neurology |
| 3/2013-1/2019  | University of Pittsburgh Medical Center, Departments of Neurology and Neurosurgery, | Director, UPMC Center for Neuroendovascular Therapy                |
| 2015- 1/2019   | University of Pittsburgh Medical Center, Departments of Neurology and Neurosurgery  | Chair, UPMC Stroke Systems of Care                                 |
| 3/2016-1/2019  | University of Pittsburgh School of Medicine, Pittsburgh, PA                         | Professor of Neurology and Neurosurgery                            |
| 2/2019-present | Cooper University Health Care                                                       | Chair, Department of Neurology                                     |
| 2/2019-present | Cooper University Health Care                                                       | Director, Cooper Neuroscience Institute                            |
| 4/2019-present | Cooper Medical School of Rowan University                                           | Professor of Neurology and Neurosurgery                            |

## CERTIFICATION AND LICENSURE

### SPECIALTY CERTIFICATION:

| Certifying Board                                                                               | Year        |
|------------------------------------------------------------------------------------------------|-------------|
| USMLE Step 1,2 and 3                                                                           | 1995 - 1996 |
| American Board of Psychiatry and Neurology                                                     | 2001        |
| Certificate of Clinical Research, University of Pittsburgh, Clinical Research Training Program | 2002        |
| American Society of Neuroimaging, Neurosonology Certification Examination                      | 2002        |
| University of Pittsburgh, Department of Radiology, Neurointerventional Fellowship              | 2004        |
| American Board of Psychiatry and Neurology, Maintenance of Certification                       | 2011        |
| American Board of Psychiatry and Neurology, Vascular Neurology Subspecialty                    | 2006        |
| United Council for Neurological Subspecialties (UCNS), Neurocritical Care                      | 2014        |

|                                                                                                                        |      |
|------------------------------------------------------------------------------------------------------------------------|------|
| University of Pittsburgh Katz School of Business/UPMC Marshall Webster Physician Leadership Program                    | 2016 |
| American Board of Psychiatry and Neurology, Vascular Neurology Subspecialty, Maintenance of Certification              | 2017 |
| Society of Neurological Surgeons, Committee of Advanced Subspecialty Training, Neuroendovascular Surgery Certification | 2017 |

#### **MEDICAL OR OTHER PROFESSIONAL LICENSURE:**

| Licensing Board/State                              | Year    |
|----------------------------------------------------|---------|
| Pennsylvania MD 072193-L                           | 12/2000 |
| New Jersey 25MA10525400                            | 6/2021  |
| West Virginia 27317                                | 2018    |
| Maryland D 0084479                                 | 2018    |
| Germany unrestricted medical license               | 2/1996  |
| United Kingdom (medical license currently on hold) | 2/1996  |

#### **MEMBERSHIP in PROFESSIONAL and SCIENTIFIC SOCIETIES**

|                                                  | Year             |
|--------------------------------------------------|------------------|
| American Academy of Neurology                    | 1/1998 - present |
| American Heart Association – Stroke Council      | 1/2000 - present |
| American Society of Neuroimaging                 | 1/2000 - present |
| American Association of Neurological Surgeons    | 2/2004 - present |
| Society of Vascular and Interventional Neurology | 8/2006 - present |
| American Neurological Association                | 9/2012-present   |
| World Stroke Organization                        | 7/2016- present  |

#### **HONORS:**

| Title of Award                                                                             | Year   |
|--------------------------------------------------------------------------------------------|--------|
| Intern of the Year Award<br>Department of Medicine, Pennsylvania Hospital, Philadelphia PA | 6/1997 |
| George J. Harrison Fellowship of the Pennsylvania Hospital                                 | 3/2000 |

|                                                                                                                                     |         |
|-------------------------------------------------------------------------------------------------------------------------------------|---------|
| National Institute of Health/University of Pittsburgh Clinical Research Training Program                                            | 7/2001  |
| William H. Oldendorf Award of the American Society of Neuroimaging                                                                  | 3/2002  |
| Best Scientific Paper Award, Society of Vascular and Interventional Neurology, First Annual Meeting                                 | 4/2007  |
| Thomas Willis Lecture of the Spanish Society of Neurology, Cerebrovascular Disease Group                                            | 11/2011 |
| Society of Vascular and Interventional Neurology (SVIN) Pioneering Award                                                            | 11/2015 |
| Society of Vascular and Interventional Neurology (SVIN) Presidential Service Award                                                  | 11/2015 |
| Society of Vascular and Interventional Neurology (SVIN), Distinguished Service Award                                                | 11/2016 |
| Honorary Member Award, Romanian Society of Stroke                                                                                   | 10/2017 |
| Most prolific author in the neurointerventional field by altimetric critetria (Kim HJ, J Neurointerv Surg)                          | 12/2018 |
| Honorary Lifetime Member, Stroke Society of Australasia                                                                             | 11/2019 |
| International Stroke Conference 2020. Opening Main Event. Anniversary lecture “5th Anniversary of the Endovascular Trials’ Results” | 2/2020  |
| AANS CNS Cerebrovascular Section 2021 Luessenhop Lecturer Award                                                                     | 7/2021  |
| Innovastions in Neuroscience Award at the 2022 Baptist Health Cerebrovascular Science Conference, Jacksonville, FL                  | 9/2022  |
| Clarivate (Web of Science) ranked among top 0.1% of scientists worldwide based on citations.                                        | 2022    |
| Romanian Society of Neurology Award. Gheorghe Marinescu Lecture at the XXI Annual meeting.                                          | 2023    |

## PUBLICATIONS

## Peer Review

1. Heidenreich F, Leifeld L, **Jovin T**. T cell-dependent activity of ganglioside GM1-specific B cells in Guillain-Barré syndrome and multifocal motor neuropathy in vitro. *J Neuroimmunol* 1994 Jan;49(1-2):97–108.
2. Heidenreich F, **Jovin T**. Synthesis of anti-acetylcholine receptor antibodies by CD5-B cells from the peripheral blood of myasthenia gravis patients. *J Neurol* 1996 Jan;243(1):57-62.
3. **Jovin TG**, Vitti RA, McCluskey LF. Evolution of temporal lobe hypoperfusion in transient global amnesia: a serial single photon emission computed tomography study. *J Neuroimaging* 2000 Oct;10(4):238-41.
4. Horowitz M, **Jovin T**, Balzar J, Welch W, Kassam A. Bow hunter's syndrome in the setting of contralateral vertebral artery stenosis: evaluation and treatment options. *Spine* 2002 Dec 1;27(23):E495-8.
5. **Jovin TG**, Yonas H, Gebel JM, Kanal E, Chang YF, Grahovac SZ, Goldstein S, Wechsler LR. The cortical ischemic core and not the consistently present penumbra is a determinant of clinical outcome in acute middle cerebral artery occlusion. *Stroke* 2003 Oct;34(10):2426-33.
6. Horowitz M, **Jovin TG**, Gebel JM. Therapeutic basilar artery occlusion for management of medically refractory basilar artery stenosis: case report. *Neurosurgery* 2004 May;54(5):1253-6;
7. Levy E, Horowitz M, **Jovin T**, Kassam A. Successful management of post-tumor resection middle cerebral artery thrombosis with stent-assisted angioplasty and thrombolytic therapy: case report. *Neurosurgery* 2004 Sep;55(3):713.
8. Horowitz M, Levy E, Hathaway B, **Jovin T**, Hirsch B. Endovascular treatment of a petrous internal carotid artery aneurysm with hemotympanum and epistaxis using a coronary stent and detachable platinum coils: report of a case. *Arch Otolaryngol Head Neck Surg* 2005 Jan;131(1):61-3.
9. Chimowitz MI, Lynn MJ, Howlett-Smith H, Stern BJ, Hertzberg VS, Frankel MR, Levine SR, Chaturvedi S, Kasner SE, Benesch CG, Sila CA, **Jovin TG**, Romano JG; Warfarin-Aspirin Symptomatic Intracranial Disease Trial Investigators. Comparison of warfarin and aspirin for symptomatic intracranial arterial stenosis. *N Engl J Med* 2005 Mar 31;352(13):1305-16.
10. **Jovin T**, Boosupalli V, Zivkovic SA, Wechsler LR, Gebel JM. High titers of CA-125 may be associated with recurrent ischemic strokes in patients with cancer. *Neurology* 2005 Jun 14;64(11):1944-5.
11. Kondziolka D, Steinberg GK, Wechsler L, Meltzer CC, Elder E, Gebel J, Decesare S, **Jovin T**, Zafonte R, Lebowitz J, Flickinger JC, Tong D, Marks MP, Jamieson C, Luu D, Bell-Stephens T, Teraoka J. Neurotransplantation for patients with subcortical motor stroke: a phase 2 randomized trial. *J Neurosurg* 2005 Jul;103(1):38-45.
12. Gupta R, Yi HJ, **Jovin TG**, Horowitz MB. Three unusual arteriovenous fistulas presenting in young children successfully treated with transarterial endovascular embolization. *Pediatr Neurosurg* 2005 Nov-Dec;41(6):328-33.
13. **Jovin, TG**, Gupta R, Uchino K, Jungreis CA, Wechsler, LR, Hammer MD, Tayal A, Horowitz MB. Emergent stenting of extracranial internal carotid artery

- occlusion in acute stroke has a high revascularization rate. *Stroke* 2005 Nov;36(11):2426-30.
14. Nemoto EM, Yonas H, Kuwabara H, Pindzola R, Sashin D, Chang Y, **Jovin T**, Gebel J, Hammer MD, Wechsler L.. Differentiating hemodynamic compromise by the OEF response to acetazolamide in occlusive vascular disease. *Adv Exp Med Biol* 2005;566:135-41.
  15. Horowitz M, **Jovin T**, Levy E, Anderson W. Emergent basilar artery and bilateral posterior cerebral artery angioplasty, urokinase thrombolysis, and stenting for acute basilar artery occlusion secondary to diagnostic cardiac catheterization: case presentation. *J Neuroimaging* 2005 Oct;15(4):315-8.
  16. Gupta R, Horowitz M, Tayal A, **Jovin T**. De novo development of a remote arteriovenous fistula following transarterial embolization of a carotid cavernous fistula: case report and review of the literature. *AJNR Am J Neuroradiol* 2005 Nov-Dec;26(10):2587-90.
  17. Kasner SE, Chimowitz MI, Lynn MJ, Howlett-Smith H, Stern BJ, Hertzberg VS, Frankel MR, Levine SR, Chaturvedi S, Benesch CG, Sila CA, **Jovin TG**, Romano JG, Cloft HJ; Warfarin Aspirin Symptomatic Intracranial Disease Trial Investigators. Predictors of ischemic stroke in the territory of a symptomatic intracranial arterial stenosis. *Circulation* 2006 Jan 31;113(4):555-63.
  18. Gupta R, **Jovin TG**, Tayal A, Horowitz MB. Urgent stenting of the M2 (superior) division of the middle cerebral artery after systemic thrombolysis in acute stroke. *AJNR Am J Neuroradiol* 2006 Mar;27(3):521-3.
  19. Gupta R, Vora NA, Horowitz MB, Tayal AH, Hammer MD, Uchino K, Levy EI, Wechsler LR, **Jovin TG**. Multimodal reperfusion therapy for acute ischemic stroke: factors predicting vessel recanalization. *Stroke* 2006 Apr;37(4):986-90.
  20. Horowitz M, Levy E, Sauvageau E, Genevro J, Guterman LR, Hanel R, Wehman C, Gupta R, **Jovin T**. Intra/extra-aneurysmal stent placement for management of complex and wide-necked- bifurcation aneurysms: eight cases using the waffle cone technique. *Neurosurgery* 2006 Apr;58
  21. Levy EI, Ecker RD, Horowitz MB, Gupta R, Hanel RA, Sauvageau E, **Jovin TG**, Guterman LR, Hopkins LN. Stent-assisted intracranial recanalization for acute stroke: early results. *Neurosurgery* 2006 Mar;58(3):458-63.
  22. Nemoto EM, Jungreis C, **Jovin T**, Rao G, Robinson T, Sanders T, Casey K, Kirkman J. Safety of direct local cooling (15 degrees C) of the cerebral cortex with the Chillerstrip during focal cerebral ischemia in monkeys. *Adv Exp Med Biol* 2006;578:317-22.
  23. Horowitz M, Gupta R, Gologorsky Y, **Jovin T**, Genevro J, Levy E, Kassam A. Clinical and anatomic outcomes after endovascular coiling of middle cerebral artery aneurysms: report on 30 treated aneurysms and review of the literature. *Surg Neurol* 2006 Aug;66(2):167-71
  24. Gupta R, Yonas H, Gebel J, Goldstein S, Horowitz M, Grahovac SZ, Wechsler LR, Hammer MD, Uchino K, **Jovin TG**. Reduced pretreatment ipsilateral middle cerebral artery cerebral blood flow is predictive of symptomatic hemorrhage post-intra-arterial thrombolysis in patients with middle cerebral artery occlusion. *Stroke* 2006 Oct;37(10):2526-30.

25. Gupta R, Al-Ali F, Thomas AJ, Horowitz MB, Barrow T, Vora NA, Uchino K, Hammer MD, Wechsler LR, **Jovin TG**. Safety, feasibility, and short-term follow-up of drug-eluting stent placement in the intracranial and extracranial circulation. *Stroke* 2006 Oct;37(10):2562-6. Epub 2006 Sep 7.
26. Kasner SE, Lynn MJ, Chimowitz MI, Frankel MR, Howlett-Smith H, Hertzberg VS, Chaturvedi S, Levine SR, Stern BJ, Benesch CG, **Jovin TG**, Sila CA, Romano JG. Warfarin Aspirin Symptomatic Intracranial Disease (WASID) Trial Investigators. Warfarin vs Aspirin for symptomatic intracranial stenosis: subgroup analyses from WASID. *Neurology* 2006 Oct;10:67(7):1275-8.
27. Yi HJ, Gupta R, **Jovin TG**, Tayal A, Genevro J, Gologorsky Y, Horowitz M. Initial experience with the use of intravenous eptifibatide bolus during endovascular treatment of intracranial aneurysms. *AJNR Am J Neuroradiol* 2006 Oct;27(9):1856-60.
28. Tayal AH, Gupta R, Yonas H, **Jovin T**, Uchino K, Hammer M, Wechsler L, Gebel JM. Quantitative perihematoma blood flow in spontaneous intracerebral hemorrhage predicts in-hospital functional outcome. *Stroke* 2007 Feb;38(2):319-24.
29. Thomas AJ, Gupta R, Tayal AH, Kassam AB, Horowitz MB, **Jovin TG**. Stenting and angioplasty of the symptomatic chronically occluded carotid artery. *AJNR Am J Neuroradiol* 2007 Jan 28(1):168-71.
30. **Jovin TG**, Gupta R, Horowitz MB, Grahovac SZ, Jungreis CA, Wechsler L, Gebel JM, Yonas H. Pretreatment ipsilateral regional cortical blood flow influences vessel recanalization in intra-arterial thrombolysis for MCA occlusion. *AJNR Am J Neuroradiol* 2007 Jan;28(1):164-7.
31. Nemoto EM, Yonas Y, Pindzola RR, Kuwabara H, Sashin D, Chang Y, **Jovin T**. PET OEF reactivity for hemodynamic compromise in occlusive vascular disease. *J Neuroimaging* 2007 Jan;17(1):54-60. Erratum in: *J Neuroimaging* 2007 Apr;17(2):187.
32. Levy EI, Mehta R, Gupta R, Hanel RA, Chamczuk AJ, Fiorella D, Woo HH, Albuquerque FC, **Jovin TG**, Horowitz MB, Hopkins LN. Self-expanding stents for recanalization of acute cerebrovascular occlusions. *AJNR Am J Neuroradiol* 2007 May;28(5):816-22. Erratum in: *AJNR Am J Neuroradiol* 2007 Sep;28(8):1624.
33. Vora NA, Germanwala AV, Thomas AJ, Horowitz MB, **Jovin TG**. Endovascular management of a traumatic ophthalmic artery aneurysm. *J Trauma* 2007 Jul;63(1):192-4.
34. Vora NA, Gupta R, Thomas AJ, Horowitz MB, Tayal AH, Hammer MD, Uchino K, Wechsler LR, **Jovin TG**. Factors predicting hemorrhagic complications after multimodal reperfusion therapy for acute ischemic stroke. *AJNR Am J Neuroradiol* 2007 Aug;28(7):1391-4.
35. Skidmore ER, Rogers JC, Chandler LS, **Jovin TG**, Holm MB. A precise method for linking neuroanatomy to function after stroke: a pilot study. *Top Stroke Rehabil* 2007 Sep-Oct;14(5):12-7.
36. Gupta R, Vora N, Thomas A, Crammond D, Roth R, **Jovin T**, Horowitz M. Symptomatic cerebral air embolism during neuro-angiographic procedures: incidence and problem avoidance. *Neurocrit Care* 2007;7(3):241-6.

37. Gupta R, Crago EA, Gallek M, Horowitz M, Hoffman L, **Jovin T**, Yonas H. Reduced ipsilateral hemispheric cerebral blood flow at admission is predictive of vasospasm with infarction after aneurysmal subarachnoid hemorrhage. *Neurocrit Care* 2008;9(1):27-30.
38. Tomycz ND, Holm MB, Horowitz MB, Wechsler LR, Raina K, Gupta R, **Jovin TG**. Extensive brainstem ischemia on neuroimaging does not preclude meaningful recovery from locked-in syndrome: two cases of endovascularly managed basilar thrombosis. *J Neuroimaging* 2008 Jan;18(1):15-7.
39. Vora N, Thomas A, Germanwala A, **Jovin T**, Horowitz M. Retrieval of a displaced detachable coil and intracranial stent with an L5 Merci Retriever during endovascular embolization of an intracranial aneurysm. *J Neuroimaging* 2008 Jan;18(1):81-4.
40. Germanwala AV, Vora NA, Thomas AJ, **Jovin T**, Gologorsky Y, Horowitz MB. Ethylenvinylalcohol copolymer (Onyx-18) used in endovascular treatment of vein of Galen malformation. *Child Nerv Syst* 2008 Jan;24(1):135-8.
41. Barbato, J. E., Dillavou, E., Horowitz, M.B., **Jovin, T.G.**, Kanal, E., David, S., Makaroun, M.S. A randomized trial of carotid artery stenting with and without cerebral protection. *J Vasc Surg.* 2008 Apr;47(4):760-5.
42. Thomas A. J., Germanwala, A.V., Vora, N., Prevedello, D.M., **Jovin, T.**, Kassam, A., Horowitz, M. Dual origin extracranial vertebral artery: case report and embryology. *Journal of Neuroimaging* 2008 Apr; 18(2): 173-6.
43. Kim SR, Vora N, **Jovin TG**, Gupta R, Thomas A, Kassam A, Lee K, Gologorsky Y, Jankowitz B, Panapitiya N, Aleu A, Sandhu E, Crago E, Hricik A, Gallek M, Horowitz MB. Anatomic results and complications of stent-assisted coil embolization of intracranial aneurysms. *Interv Neuroradiol.* 2008 Sep 30;14(3):267-84.
44. Jankowitz B<sup>1</sup>, Thomas AJ, Vora N, Gupta R, Levy E, Yamamoto J, Kassam A, Gologorsky Y, Panapitiya N, Sandhu E, Crago E, Hricik A, Lee K, Gallek M, **Jovin T**, Horowitz M. Risk of hemorrhage in combined neuroform stenting and coil embolization of acutely ruptured intracranial aneurysms. *Interv Neuroradiol.* 2008 Dec 29;14(4):385-96.
45. Jankowitz, B.T., Vora, N., **Jovin, T. G.**, Horowitz, M. Treatment of pediatric intracranial vascular malformations using Onyx-18. *Journal of Neurosurgery Pediatric* 2008 Sep; 2(3):171-6.
46. Qureshi AI, Abou-Chebl A, **Jovin TG**. Qualification requirements for performing neurointerventional procedures: a report of the practice guidelines committee of the American Society of Neuroimaging and the Society of Vascular and Interventional Neurology. *J Neuroimaging* 2008 Oct;18(4):433-47.
47. Bhatt A, Vora NA, Thomas AJ, Majid A, Kassab M, Hammer MD, Uchino K, Wechsler L, **Jovin TG**, Gupta R. Lower pretreatment cerebral blood volume affects hemorrhagic risks after intra-arterial revascularization in acute stroke. *Neurosurgery* 2008 Nov;63(5):874-8;
48. Vora N, Thomas AJ, Gupta R, Gologorsky Y, Panapitiya N, **Jovin T**, Jankowitz B, Kassam A, Horowitz M. Endovascular treatment of distal anterior cerebral

- artery aneurysms: technical results and review of the literature. *J Neuroimaging* 2008
49. Vora N, Thomas AJ, Horowitz MB, **Jovin T**. Retrograde back-coiling technique for a ruptured aneurysm of a double-origin posterior inferior cerebellar artery. *J Neuroimaging* 2009 Jan;19(1):65-7.
  50. Jankowitz BT, Vora N, **Jovin T**, Horowitz M. Treatment of pediatric intracranial vascular malformations using Onyx-18. *J Neurosurg Pediatr* 2008 Sep;2(3):171-6.
  51. Lin R, Vora N, Zaidi S, Aleu A, Jankowitz B, Thomas A, Gupta R, Horowitz M, Kim S, Reddy V, Hammer M, Uchino K, Wechsler LR, **Jovin T**. Mechanical approaches combined with intra-arterial pharmacological therapy are associated with higher recanalization rates than either intervention alone in revascularization of acute carotid terminus occlusion. *Stroke* 2009 Jun;40(6):2092-7.
  52. Hammer M, **Jovin T**, Wahr JA, Heiss WD. Partial occlusion of the descending aorta increases cerebral blood flow in a nonstroke porcine model. *Cerebrovasc Dis.* 2009 Aug;(4):406-10.
  53. Jankowitz BT, Aleu A, Lin R, Kostov D, Thomas AJ, Gupta R, Vora N, Seong, RK, Panapitiya N, **Jovin T**, Horowitz M. Endovascular treatment of atypical posterior circulation aneurysms: Technical results and review of the literature. *J Neuroimaging* Sep 15.
  54. Jankowitz BT, Vora N, **Jovin T**, Horowitz M. Ear necrosis resulting from the endovascular Onyx-18 embolization of a dural arteriovenous fistula fed by the posterior auricular artery. *J Neuroimaging.* 2009 Jul;19(3):259-62.
  55. Tomycz ND, Vora NA, Kanal E, Horowitz MD, **Jovin TG**. Intracranial arterialized venous angioma: case report with new insights from functional brain MRI. *Diagn Interv Radiol.* 2009 Oct 5.
  56. Hussain MS, Lin R, Moskowitz S, Bain M, Gonugunta V, Rasmussen PA, Masaryk TJ, Horowitz MB, **Jovin T**, Gupta R. Symptomatic delayed reocclusion after initial successful revascularization in acute ischemic stroke. *J Stroke Cerebrovasc Dis.* 2010 Jan;19(1):36-9.
  57. Shi ZS, Loh Y, Walker G, Duckwiler GR; MERCI and Multi-MERCI Investigators. Clinical outcomes in middle cerebral artery trunk occlusions versus secondary division occlusions after mechanical thrombectomy; pooled analysis of the mechanical embolus removal in cerebral ischemia (MERCI) and Multi MERCI trials. *Stroke.* 2010 May;41(5):953-60.
  58. Abou-Chebl A, Lin R, Hussain MS, **Jovin TG**, Levy EI, Liebeskind DS, Yoo AJ, Hsu DP, Rymer MM, Tayal AH, Zaidat OO, Natarajan SK, Nogueira RG, Nanda A, Tian M, Hao Q, Kalia JS, Nguyen TN, Chen M, Gupta R. Conscious sedation versus general anesthesia during endovascular therapy for acute anterior circulation stroke; preliminary results from a retrospective, multicenter study. *Stroke.* 2010 Jun;41(6):1175-9.
  59. Jumaa MA, Zhang F, Ruiz-Ares G, Gelzinis T, Malik AM, Aleu A, Oakley JI, Jankowitz B, Lin R, Reddy V, Zaidi SF, Hammer, MD Wechsler LR, Horowitz M, **Jovin TG**. Comparison of safety and clinical and radiographic outcomes in endovascular acute stroke therapy for proximal middle cerebral artery occlusion with intubation and general anesthesia versus the nonintubated state. *Stroke.* 2010 Jun;41(6):1180-4.

60. Jankowitz BT, Aleu A, Lin R, Jumaa M, Kostov D, Hammer M, Uchino K, Wechsler LR, Horowitz MB, **Jovin TG**. Endovascular treatment of basilar artery occlusion by manual aspiration thrombectomy. *JNIS* 2010;2:110-114
61. Kanaan H, Jankowitz B, Aleu A, Kostov D, Lin R, Lee K, Panipitiya N, Gologorsky Y, Sandhu E, Rissman L, Crago E, Chang YF, Kim SR, **Jovin TG**, Horowitz M. In-stent thrombosis and stenosis after neck-remodeling device-assisted coil embolization of intracranial aneurysms. *Neurosurgery*. 2010 Dec;67(6):1523-32.
62. Lin R, Aleu A, Jankowitz B, Kostov D, Kanaan H, Horowitz M, **Jovin TG**. Endovascular Revascularization of Chronic Symptomatic Vertebrobasilar Occlusion. *J Neuroimaging*. 2010 Dec 1
63. Jumaa M, Popescu A, Tsay J, Vaughan C, Vora N, Jankowitz B, Horowitz MB, **Jovin TG**, Uchino K. Evaluation of Vertebral Artery Origin Stenosis: A Retrospective Comparison of Three Techniques. *J Neuroimaging*. 2010 Dec 1.
64. Uchino K, Massaro L, **Jovin TG**, Hammer MD, Wechsler LR. Protocol adherence and safety of intravenous thrombolysis after telephone consultation with a stroke center. *J Stroke Cerebrovasc Dis*. 2010 Nov-Dec;19(6):417-23.
65. Aleu A, Hussain MV, Lin R, Gupta R, Jankowitz BT, Vora NA, Jumaa MA, Zaidi SF, Anderson WD, Horowitz MB, **Jovin TG**. Endovascular Therapy for Cardiac Catheterization Associated Strokes. *J Neuroimaging*. 2011 Jan 31
66. Nguyen, T.N., Babikian, V.L., Romero, R, Pikula, A, Kase, C.S., **Jovin, T.G.**, Norbash, A.M. Intra-arterial treatment methods in acute stroke therapy. *Frontiers in Neurology, Endovascular and Interventional Neurology*. 2011 Mar; 2 (9); 1.
67. Malik, A.M., Vora, N.A, Lin, R., Zaidi, S.F., Aleu, A., Jankowitz, B.T., Jumaa, M.A., Reddy, V.K., Hammer, M.D., Wechsler, L.R., Horowitz, M.B, **Jovin, T.G.** Endovascular Treatment of Tandem Extracranial/Intracranial Anterior Circulation Occlusions: Preliminary Single Center Experience. *Stroke*.2011 Jun;42(6):1653-7.
68. Kostov, D., Jankowitz, B. T., Kanaan, H.A., Lin, R., Aleu, A., **Jovin, T.G.**, Horowitz, M. Repair of Intracranial Vessel Perforation with Onyx-18 Using an Exovascular Retreating Catheter Technique. *Journal of Neurointerventional Surgery*. 4/22/2011.
69. Gupta, R., Tayal, A.H., Levy, E.I., Cheng-Ching, E., Rai, A., Liebeskind, D.S., Yoo, A.J., Hsu, D.P., Rymer, M.M., Zaidat, O.O., Lin, R., Natarajan, S.K., Nogueira, R. G., Nanda, A., Tian, M., Hao, Q., Abou-Chebl, A., Kalia, J.S., Nguyen, T.N., Chen, M., **Jovin, T.G.** Intra-arterial Thrombolysis or Stent Placement During Endovascular Treatment for Acute Ischemic Stroke Leads to the Highest Recanalization Rate: Results of a Multicenter Retrospective Study. *Neurosurgery*. 2011 Jun;68 (6):1618-1623.
70. Jiang, W. J., Cheng-Ching, E., Abou-Chebl, A., Zaidat, O.O., **Jovin, T.G.**, Kalia, J., Hassain, M.S., Lin, R., Malik, A.M., Hui, F., Gupta, R. Multi-Center Analysis of Stenting in Symptomatic Intracranial Atherosclerosis. *Neurosurgery*. 2011 Jul 13.
71. **Jovin, T.G.**, Liebeskind, D.S., Gupta, R., Rymer, M., Rai, A., Zaidat, O.O., Abou-Chebl, A., Baxter, B., Levy E.I., Barreto, A., Nogueira, R.G. Imaging-Based Endovascular Therapy for Acute Ischemic Stroke due to Proximal Intracranial Anterior Circulation Occlusion Treated Beyond 8 Hours From Time

- Last Seen Well: Retrospective Multicenter Analysis of 237 Consecutive Patients. *Stroke*. 2011 Aug; 42(8):2206-11.
72. Zaidi SF, Jumma MA, Urria XN, Hammer M, Massaro L, Reddy V, **Jovin T**, Lin R, Wechsler LR. Telestroke-Guided Intravenous Tissue-Type Plasminogen Activator Treatment Achieves a Similar Clinical Outcome as Thrombolysis at a Comprehensive Stroke Center. *Stroke*. 2011 Sep 1.
  73. Jumaa, M., Aghaebrahim, A., Zaidi, S.F., Jankowitz, B., **Jovin, TG.**, Horowitz, M.B. Is a Head CT Necessary After Uncomplicated Coiling of Unruptured Intracranial Aneurysms? *J Neuroimaging*. Jan 13, 2012
  74. Kostov, D., Kanaan, H., Lin, R., **Jovin, TG.**, Horowitz, M., Jankowitz, B. Repair of intracranial vessel perforation with Onyx-18 using an exovascular retreating catheter technique. *J Neurointerv Surg*. Mar Vol 4, 2012
  75. Uchino, K., Lin, R., Zaidi, S.F., Kuwabara, H., Sashin, D., Bircher, N., Chang, Y.F., Hammer, M.D., Reddy, V., **Jovin, TG.**, Vora, N., Jumaa, M., Massaro, L., Billigen, J., Boada, F., Yonas, H., Nemoto, E.M. Increased Cerebral Oxygen Metabolism and Ischemic Stress in Subjects with Metabolic Syndrome -Associated Risk Factors: Preliminary Observations. *Transl Stroke Res*. Sep Vol 3, 2011.
  76. Edgell, R.C., Zaidat, O.O, Gupta, R., Abou-Chebl, A., Linfante, I., Xavier, A., Nogueira, R., Alshekhl, A., Kalia, J., Etezadi, V., Aghaebrahim, N., **Jovin, TG** Multicenter Study of Safety in Stenting for Symptomatic Vertebral Artery Origin Stenosis: Results from the Society of Vascular and Interventional Neurology Research Consortium. *J Neuroimaging*. Dec 30 2011.
  77. Kostov, D.B., Singleton, R.H., Panczykowski, D., Kanaan, H.A., Horowitz, M.B., **Jovin, TG.**, Jankowitz, B.T. Decompressive Hemicraniectomy, Strokectomy, or Both in the Treatment of Malignant Middle Cerebral Artery Syndrome. *World Neurosurg*. Dec 2011.
  78. Hammer, M.D., Schwamm, L., Starkman, S., Schellinger, P.D., **Jovin, TG.**, Nogueira, R., Burgin, W.S., Sen, S., Diener, H.C., Watson, T., Michel, P., Shuaib, A., Dillon, W., Liebeskind, D.S. Safety and feasibility of NeuroFlo use in eight- to 24-hour ischemic stroke patients. *Int J Stroke*. Jan 20, 2012
  79. Jankowitz, B.T., Thomas, A., **Jovin, TG.**, Horowitz, M. Y stenting using kissing stents for the treatment of bifurcation aneurysms. *J Neurointerv Surg*. Jan Vol 4 2012.
  80. Jankowitz, B., Aghaebrahim, A., Zirra, A., Spataru, O., Zaidi, S., Jumaa, M., Ruiz-Ares, G., Horowitz, M., **Jovin, TG.** Manual Aspiration Thrombectomy: Adjunctive Endovascular Recanalization Technique in Acute Stroke Interventions. *Stroke*. Mar 1 2012.
  81. Lansberg MG, Straka M, Kemp S, Mlynash M, Wechsler LR, Jovin TG, Wilder MJ, Lutsep HL, Czartoski TJ, Bernstein RA, Chang CW, Warach S, Fazekas F, Inoue M, Tip-irneni A, Hamilton SA, Zaharchuk G, Marks MP, Bammer R, Albers GW; DEFUSE 2 study investigators. MRI profile and response to endovascular reperfusion after stroke (DEFUSE 2): a prospective cohort study. *Lancet Neurol*. 2012 Oct;11(10):860-7.
  82. Nguyen TN, Zaidat OO, Edgell RC, Janjua N, Yavagal DR, Xavier AR, Kirmani JF, Liebeskind DS, Nogueira RG, Vora NA, Sims JR, Lynch JR, Fitzsimmons

- BF, Wolfe TJ, Chen M, Badruddin A, Zahuranec DB, McDonagh DL, Janardhan V, Bastan B, Madden JA, Sanossian N, Gupta R, Lazzaro MA, Linfante I, Hussain SI. Vascular neurologists and neurointerventionalists on endovascular stroke care: polling results *Neurology*. 2012 Sep;79
83. Saver JL, Jahan R, Levy EI, **Jovin TG**, Baxter B, Nogueira RG, et al; SWIFT Trialists. Solitaire flow restoration device versus the Merci Retriever in patients with acute ischaemic stroke (SWIFT): a randomised, parallel-group, non-inferiority trial. *Lancet*. 2012;380:1241–1249.
  84. Nogueira RG, Lutsep HL, Gupta R, **Jovin TG**, Albers GW, Walker GA, et al; TREVO 2 Trialists. Trevo versus Merci retrievers for thrombectomy revascularisation of large vessel occlusions in acute ischaemic stroke (TREVO 2): a randomised trial. *Lancet*. 2012;380:1231–1240
  85. Sheth KN, Terry JB, Nogueira RG, Horev A, Nguyen TN, Fong AK, Gandhi D, Prabhakaran S, Wisco D, Glenn BA, Tayal AH, Ludwig B, Hussain MS, **Jovin TG**, Clemmons PF, Cronin C, Liebeskind DS, Tian M, Gupta R. Advanced modality imaging evaluation in acute ischemic stroke may lead to delayed endovascular reperfusion therapy without improvement in clinical outcomes. *J Neurointerv Surg*. 2012 Oct 16.
  86. Zaidi SF, Aghaebrahim A, Urrea X, Jumaa MA, Jankowitz B, Hammer M, Nogueira R, Horowitz M, Reddy V, **Jovin TG** Final infarct volume is a stronger predictor of outcome than recanalization in patients with proximal middle cerebral artery occlusion treated with endovascular therapy. *Stroke* 2012 Dec;43(12):3238-44
  87. Sacks D, Black CM, Cognard C, Connors JJ 3rd, Frei D, Gupta R, **Jovin TG**, Kluck B, Meyers PM, Murphy KJ, Ramee S, Rüfenacht DA, Bernadette Stallmeyer MJ, Vorwerk D Multisociety Consensus Quality Improvement Guidelines for Intraarterial Catheter-directed Treatment of Acute Ischemic Stroke, from the American Society of Neuroradiology, Canadian Interventional Radiology Association, Cardiovascular and Interventional Radiological Society of Europe, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of NeuroInterventional Surgery, European Society of Minimally Invasive Neurological Therapy, and Society of Vascular and Interventional Neurology. *J Vasc. Interv Radiol*. 2013 Feb;24(2):151-63.
  88. Wechsler LR, **Jovin TG**. Intravenous recombinant tissue-type plasminogen activator in the extended time window and the US Food and Drug Administration; *Stroke*: 2012 Sep; 43(9).
  89. Broderick JP, Palesch YY, Demchuk AM, Yeatts SD, Khatri P, Hill MD, Jauch EC, **Jovin TG**, Yan B, Silver FL, Von Kummer R, Molina CA, Demaerschalk BM, Dubdzik R, Calark WM, Zaidat OO, Malisch TW, Goyal M, Schonewille WJ, Mazighi M, Engelter ST, Anderson C, Spilker J, Carrozzella J, Ryckborst KJ, Janis LS, Martin RH, Foster LD, Tomsick TA; Interventional Management of Stroke (IMS)III Investigators. Endovascular therapy after Intravenous t-PA versus t-PA alone for stroke. *N Engl J Med*. 2013 Mar 7;368(10):893-903.
  90. Hill MD, Demchuk AM, Goyal M, Jovin TG, Foster LD, Tomsick TA, Kummer R, Yeatts SD, Palesch YY, Broderick JP; for the IMS3 Investigators. *Stroke*. 2013 Dec 12. Alberta Stroke Program Early Computed Tomography Score to Select

- Patients for Endovascular Treatment: Interventional Management of Stroke (IMS)-III Trial.
91. Gupta R, Horev A, Nguyen T, Gandhi D, Wisco D, Glenn BA, Tayal AH, Ludwig B, Terry JB, Gershon RY, **Jovin T**, Clemmons PF, Frankel MR, Cronin CA, Anderson AM, Hussain MS, Sheth KN, Belagaje SR, Tian M, Nogueira RG. Higher volume endovascular stroke centers have faster times to treatment, higher reperfusion rates and higher rates of good clinical outcomes. *J Neurointerv Surg*. 2013 Jul;5(4):294-7
  92. Amorim E, Jankowitz BT, **Jovin TG**, Jadhav AP. Recovery from ophthalmoplegia and proptosis after repair of bilateral carotid-cavernous sinus fistulas. *JAMA Neurol*. 2013 Dec 1;70(12):1584-5.
  93. Goyal M, Shamy M, Menon BK, Saver JL, Diener HC, Mocco J, Pereira VM, **Jovin TG**, Zaidat O, Levy EI, Davalos A, Demchuk A, Hill MD. Endovascular stroke trials: why we must enroll all eligible patients. *Stroke*. 2013 Dec;44(12):3591-5.
  94. Molina CA, Chamorro A, Rovira A, de Miquel A, Serena J, Roman LS, **Jovin TG**, Davalos A, Cobo E. REVASCAT: a randomized trial of revascularization with SOLITAIRE FR® device vs. best medical therapy in the treatment of acute stroke due to anterior circulation large vessel occlusion presenting within eight-hours of symptom onset. *Int J Stroke*. 2013 Nov 10.
  95. Jadhav AP, Ribo M, Grandhi R, Linares G, Aghaebrahim A, **Jovin TG**, Jankowitz BT. Transcervical access in acute ischemic stroke. *J Neurointerv Surg*. 2013 Nov 7
  96. Saver JL, **Jovin TG**, Smith WS, Albers GW, Baron JC, Boltze J, Broderick JP, Davis LA, Demchuk AM, DeSena S, Fiehler J, Gorelick PB, Hacke W, Holt B, Jahan R, Jing H, Khatri P, Kidwell CS, Lees KR, Lev MH, Liebeskind DS, Luby M, Lyden P, Megerian JT, Mocco J, Muir KW, Rowley HA, Ruedy RM, Savitz SI, Sipelis VJ, Shimp SK 3rd, Wechsler LR, Wintermark M, Wu O, Yavagal DR, Yoo AJ; STAIR VIII Consortium. Stroke treatment academic industry roundtable: research priorities in the assessment of neurothrombectomy devices. *Stroke*. 2013 Dec;44(12):3596-601.
  97. Jadhav AP, Aghaebrahim N, Jankowitz BT, **Jovin TG**. Cerebral microbleeds in lupus anticoagulant-hypoprothrombinemia syndrome. *JAMA Neurol*. 2013 Nov;70(11):1452-3.
  98. Flint AC, Xiang B, Gupta R, Nogueira RG, Lutsep HL, **Jovin TG**, Albers GW, Liebeskind DS, Sanossian N, Smith WS; TREVO-2 Trialists. THRIVE Score Predicts Outcomes With a Third-Generation Endovascular Stroke Treatment Device in the TREVO-2 Trial. *Stroke*. 2013 Dec;44(12):3370-5.
  99. Yoo AJ, Simonsen CZ, Prabhakaran S, Chaudhry ZA, Issa MA, Fugate JE, Linfante I, Liebeskind DS, Khatri P, **Jovin TG**, Kallmes DF, Dabus G, Zaidat OO; Cerebral Angiographic Revascularization Grading Collaborators. Refining angiographic biomarkers of revascularization: improving outcome prediction after intra-arterial therapy. *Stroke*. 2013 Sep;44(9):2509-12.
  100. Zaidat OO, Yoo AJ, Khatri P, Tomsick TA, von Kummer R, Saver JL, Marks MP, Prabhakaran S, Kallmes DF, Fitzsimmons BF, Mocco J, Wardlaw JM, Barnwell SL, **Jovin TG**, Linfante I, Siddiqui AH, Alexander MJ, Hirsch JA,

- Wintermark M, Albers G, Woo HH, Heck DV, Lev M, Aviv R, Hacke W, Warach S, Broderick J, Derdeyn CP, Furlan A, Nogueira RG, Yavagal DR, Goyal M, Demchuk AM, Bendszus M, Liebeskind DS; Cerebral Angiographic Revascularization Grading (CARG) Collaborators; STIR Revascularization working group; STIR Thrombolysis in Cerebral Infarction (TICI) Task Force. Stroke. Recommendations on angiographic revascularization grading standards for acute ischemic stroke: a consensus statement. 2013 Sep;44(9):2650-63.
101. Wintermark M, Albers GW, Broderick JP, Demchuk AM, Fiebach JB, Fiehler J, Grotta JC, Houser G, **Jovin TG**, Lees KR, Lev MH, Liebeskind DS, Luby M, Muir KW, Parsons MW, von Kummer R, Wardlaw JM, Wu O, Yoo AJ, Alexandrov AV, Alger JR, Aviv RI, Bammer R, Baron JC, Calamante F, Campbell BC, Carpenter TC, Christensen S, Copen WA, Derdeyn CP, Haley EC Jr, Khatri P, Kudo K, Lansberg MG, Latour LL, Lee TY, Leigh R, Lin W, Lyden P, Mair G, Menon BK, Michel P, Mikulik R, Nogueira RG, Ostergaard L, Pedraza S, Riedel CH, Rowley HA, Sanelli PC, Sasaki M, Saver JL, Schaefer PW, Schellinger PD, Tsivgoulis G, Wechsler LR, White PM, Zaharchuk G, Zaidat OO, Davis SM, Donnan GA, Furlan AJ, Hacke W, Kang DW, Kidwell C, Thijs VN, Thomalla G, Warach SJ; Stroke Imaging Research (STIR) and Virtual International Stroke Trials Archive (VISTA)-Imaging Investigators. Acute Stroke Imaging Research Roadmap II. Stroke. 2013 Sep;44(9):2628-39.
  102. Jadhav AP, Zenonos G, Pless M, **Jovin TG**, Wechsler L. A variant of the anterior opercular syndrome with supranuclear gaze palsy. JAMA Neurol. 2013 Jun;70(6):800-1
  103. Lai D, **Jovin TG**, Jadhav AP. Cortical vein air emboli with gyriform infarcts. JAMA Neurol. 2013 Jul;70(7):939-40.
  104. Aghaebrahim A, Jankowitz BT, **Jovin TG**, Jadhav AP. Bilateral carotid dissections after a dental procedure: the role of stenting in unstable lesions. J Clin Neurosci. 2013 Dec;20(12):1778-80.
  105. Inoue M, Mlynash M, Straka M, Kemp S, **Jovin TG**, Tipirneni A, Hamilton SA, Marks MP, Bammer R, Lansberg MG, Albers GW; DEFUSE 1 and 2 Investigators. Clinical outcomes strongly associated with the degree of reperfusion achieved in target mismatch patients: pooled data from the Diffusion and Perfusion Imaging Evaluation for Understanding Stroke Evolution studies. Stroke. 2013 Jul;44(7):1885-90.
  106. Sacks D, Black CM, Cognard C, Connors JJ 3rd, Frei D, Gupta R, **Jovin TG**, Kluck B, Meyers PM, Murphy KJ, Ramee S, Rüfenacht DA, Stallmeyer MJ, Vorwerk D. Multisociety Consensus Quality Improvement Guidelines for Intraarterial Catheter-directed Treatment of Acute Ischemic Stroke, from the American Society of Neuroradiology, Canadian Interventional Radiology Association, Cardiovascular and Interventional Radiological Society of Europe, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of NeuroInterventional Surgery, European Society of Minimally Invasive Neurological Therapy, and Society of Vascular and Interventional Neurology. AJNR Am J Neuroradiol. 2013 Apr;34(4):E0.

107. Sacks D, Black CM, Cognard C, Connors JJ 3rd, Frei D, Gupta R, **Jovin TG**, Kluck B, Meyers PM, Murphy KJ, Ramee S, Rüfenacht DA, Stallmeyer MJ, Vorwerk D. Multisociety consensus quality improvement guidelines for intraarterial catheter-directed treatment of acute ischemic stroke, from the American Society of Neuroradiology, Canadian Interventional Radiology Association, Cardiovascular and Interventional Radiological Society of Europe, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of NeuroInterventional Surgery, European Society of Minimally Invasive Neurological Therapy, and Society of Vascular and Interventional Neurology. *Catheter Cardiovasc Interv*. 2013 Aug 1;82(2):E52-68.
108. Amorim E, Shih MM, Koehler SA, Massaro LL, Zaidi SF, Jumaa MA, Reddy VK, Hammer MD, **Jovin TG**, Wechsler LR. Impact of telemedicine implementation in thrombolytic use for acute ischemic stroke: the University of Pittsburgh Medical Center telestroke network experience. *J Stroke Cerebrovasc Dis*. 2013 May;22(4):527-31.
109. Sacks D, Black CM, Cognard C, Connors JJ 3rd, Frei D, Gupta R, **Jovin TG**, Kluck B, Meyers PM, Murphy KJ, Ramee S, Rüfenacht DA, Bernadette Stallmeyer MJ, Vorwerk D; American Society of Neuroradiology; Canadian Interventional Radiology Association; Cardiovascular and Interventional Radiological Society of Europe; Society for Cardiovascular Angiography and Interventions; Society of Interventional Radiology; Society of NeuroInterventional Surgery; European Society of Minimally Invasive Neurological Therapy; Society of Vascular and Interventional Neurology. Multisociety consensus quality improvement guidelines for intraarterial catheter-directed treatment of acute ischemic stroke, from the American Society of Neuroradiology, Canadian Interventional Radiology Association, Cardiovascular and Interventional Radiological Society of Europe, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, Society of NeuroInterventional Surgery, European Society of Minimally Invasive Neurological Therapy, and Society of Vascular and Interventional Neurology. *J Vasc Interv Radiol*. 2013 Feb;24(2):151-63.
110. Kenmuir C, Totoraitis RV, **Jovin T**, Jadhav A. Hyperdense middle cerebral artery sign. *Pract Neurol*. 2013 Nov 29.
111. Hernández-Pérez M, Pérez de la Ossa N, Aleu A, Millán M, Gomis M, Dorado L, López-Cancio E, **Jovin T**, Dávalos A. Natural History of Acute Stroke due to Occlusion of the Middle Cerebral Artery and Intracranial Internal Carotid Artery. *J Neuroimaging*. 2013 Nov 19.
112. Aghaebrahim A, **Jovin T**, Jadhav AP, Noorian A, Gupta R, Nogueira RG. *J Neurointerv Surg*. 2013 Nov 18. Endovascular recanalization of complete subacute to chronic atherosclerotic occlusions of intracranial arteries. *J Neurointerv Surg*. 2013 Nov 18.
113. Grandhi R, Kanaan H, Shah A, Harrison G, Bonfield C, **Jovin T**, Jankowitz B, Horowitz M. Safety and efficacy of percutaneous femoral artery access followed by Mynx closure in cerebral neurovascular procedures: a single center analysis. *J Neurointerv Surg*. 2013 Jul 18.

114. Schellinger PD, Shuaib A, Köhrmann M, Liebeskind DS, **Jovin T**, Hammer MD, Sen S, Huang DY, Solander S, Gupta R, Leker RR, Saver JL; SENTIS Trial Investigators.Reduced Mortality and Severe Disability Rates in the SENTIS Trial.AJNR Am J Neuroradiol. 2013 Dec;34(12):2312-6
115. Leiva-Salinas C, Aghaebrahim A, Zhu G, Patrie JT, Xin W, Lau BC, **Jovin T**, Wintermark M. Tissue at risk in acute stroke patients treated beyond 8 h after symptom onset. Neuroradiology. 2013 Jul;55(7):807-12.
116. Jankowitz BT, Bodily LM, Jumaa M, Syed ZF, **Jovin TG**. Manual aspiration thrombectomy for cerebral venous sinus thrombosis.J Neurointerv Surg. 2013 Nov;5(6):534-8. Jadhav AP, Aghaebrahim N, Jankowitz BT, **Jovin TG**. Cerebral Microbleeds in Lupus Anticoagulant-Hypoprothrombinemia Syndrome. JAMA Neurol. 2013 Sep 30.
117. Aghaebrahim A, Jankowitz BT, **Jovin TG**, Jadhav AP. Bilateral carotid dissections after a dental procedure: The role of stenting in unstable lesions. J Clin Neurosci. 2013 May 23.
118. Nogueira RG, Gupta R, **Jovin TG**, Levy EI, Liebeskind DS, Zaidat OO, Rai A, Hirsch JA, Hsu DP, Rymer MM, Tayal AH, Lin R, Natarajan SK, Nanda A, Tian M, Hao Q, Kalia JS, Chen M, Abou-Chebl A, Nguyen TN, Yoo AJ. Predictors and clinical relevance of hemorrhagic transformation after endovascular therapy for anterior circulation large vessel occlusion strokes: a multicenter retrospective analysis of 1122 patients. J Neurointerv Surg. 2014 Jan 8.
119. Jankowitz B, Grandhi R, Horev A, Aghaebrahim A, Jadhav A, Linares G, **Jovin T**. Primary manual aspiration thrombectomy (MAT) for acute ischemic stroke: safety, feasibility and outcomes in 112 consecutive patients .J Neurointerv Surg. 2014 Jan 2.
120. Aghaebrahim A, Jadhav AP, Saeed Y, Totoraitis R, Jankowitz BT, **Jovin TG**, Molyneaux BJ Neurology. Reversible cerebral vasoconstriction syndrome following carotid stenting. 2014 Aug 5;83(6):570-1.
121. Rangaraju S, Liggins JT, Aghaebrahim A, Streib C, Sun CH, Gupta R, Nogueira R, Frankel M, Mlynash M, Lansberg M, Albers G, Jadhav A, **Jovin TG** Pittsburgh outcomes after stroke thrombectomy score predicts outcomes after endovascular therapy for anterior circulation large vessel occlusions. Stroke. 2014 Aug;45(8):2298-304.
122. Prabhakaran S, **Jovin TG**, Tayal AH, Hussain MS, Nguyen TN, Sheth KN, Terry JB, Nogueira RG, Horev A, Gandhi D, Wisco D, Glenn BA, Ludwig B, Clemmons PF, Cronin CA, Tian M, Liebeskind D, Zaidat OO, Castonguay AC, Martin C, Mueller-Kronast N, English JD, Linfante I, Malisch TW, Gupta R. Posttreatment variables improve outcome prediction after intra-arterial therapy for acute ischemic stroke. Cerebrovasc Dis. 2014; 37(5):356-63.
123. Grandhi R, Zwagerman NT, Linares G, Monaco EA 3rd, Jovin T, Horowitz M, Jankowitz BT.Onyx embolization of infectious intracranial aneurysms. J Neurointerv Surg. 2014 Jun; 6(5):353-6.
124. Demchuk AM, Goyal M, Yeatts SD, Carrozzella J, Foster LD, Qazi E, Hill MD, **Jovin TG**, Ribo M, Yan B, Zaidat OO, Frei D, von Kummer R, Cockcroft KM, Khatri P, Liebeskind DS, Tomsick TA, Palesch YY, Broderick JP; IMS III Investigators. Recanalization and Clinical Outcome of Occlusion Sites at

- Baseline CT Angiography in the Interventional Management of Stroke III Trial. Radiology. 2014 Oct; 273(1):202-10.
125. Ribo M, Molina CA, Jankowitz B, Tomasello A, Zaidi S, Jumaa M, Coscojuela P, Oakley J, Alvarez-Sabín J, **Jovin TG**. Stentriever versus other endovascular treatment methods for acute stroke: comparison of procedural results and their relationship to outcomes. J Neurointerv Surg. 2014 May;6(4):265-9.
  126. Shi ZS, Liebeskind DS, Xiang B, Ge SG, Feng L, Albers GW, Budzik R, Devlin T2, Gupta R, Jansen O, **Jovin TG**, Killer-Oberpfalzer M2, Lutsep HL, Macho J, Nogueira RG, Rymer M, Smith WS2, Wahlgren N, Duckwiler GR; Multi MERCI, TREVO, and TREVO 2 Investigators Predictors of functional dependence despite successful revascularization in large-vessel occlusion strokes. Stroke. 2014 Jul;45(7):1977-84
  127. Flint AC, Cullen SP, Rao VA, Faigles BS, Pereira VM, Levy EI, **Jovin TG**, Liebeskind DS, Nogueira RG, Jahan R, Saver JL; SWIFT and STAR trialists. The THRIVE score strongly predicts outcomes in patients treated with the Solitaire device in the SWIFT and STAR trials Stroke. 2014 Aug;9 (6):698-704.
  128. Goyal M, Almekhlafi MA, Fan L, Menon BK, Demchuk AM, Yeatts SD, Hill MD, Tomsick T, Khatri P, Zaidat OO, Jauch EC, Eesa M, **Jovin TG**, Broderick JP. Evaluation of interval times from onset to reperfusion in patients undergoing endovascular therapy in the Interventional Management of Stroke III trial. Circulation. 2014 Jul 15;130(3):265-72
  129. Liggins JT, Mlynash M, **Jovin TG**, Straka M, Kemp S, Bammer R, Marks MP, Albers GW, Lansberg MG; on behalf of the DEFUSE 2 Investigators Interhospital variation in reperfusion rates following endovascular treatment for acute ischemic stroke. J Neurointerv Surg. 2014 Mar 24.
  130. Liebeskind DS, Jahan R, Nogueira RG, **Jovin TG**, Lutsep HL, Saver JL; SWIFT Investigators Serial Alberta Stroke Program early CT score from baseline to 24 hours in Solitaire Flow Restoration with the Intention for Thrombectomy study: a novel surrogate end point for revascularization in acute stroke. Stroke. 2014 Mar;45(3):723-7
  131. Grandhi R, Kanaan H, Shah A, Harrison G<sup>4</sup>, Bonfield C, Jovin T, Jankowitz B, Horowitz MB. Safety and efficacy of percutaneous femoral artery access followed by Mynx closure in cerebral neurovascular procedures: a single center analysis. J Neurointerv Surg. 2014 Jul;6 (6):445-50.
  132. Liebeskind DS, Tomsick TA, Foster LD, Yeatts SD, Carrozzella J, Demchuk AM, **Jovin TG**, Khatri P, von Kummer R, Sugg RM, Zaidat OO, Hussain SI, Goyal M, Menon BK, Al Ali F, Yan B, Palesch YY, Broderick JP; IMS III Investigators Collaterals at angiography and outcomes in the Interventional Management of Stroke (IMS) III trial. Stroke. 2014 Mar;45 (3):759-64.
  133. Qiao, YQ; Zhu G , Patrie J, MS; Xin, W, Michel P, Eskandari A, **Jovin TG**, Wintermark M. Optimal Perfusion Computed Tomographic Thresholds for Ischemic Core and Penumbra Are Not Time Dependent in the Clinically Relevant Time Window. Stroke. 2014;Mar 45(1355-1362
  134. Grandhi R, Zhang X, Jadhav AP, Horowitz MB, Ducruet AF, Jankowitz BT, **Jovin TG**. Femoral Arteriotomy Closure using the Mynx Vascular Closure

- Device: A Profile of Device Efficacy and Complications. *Interventional Cardiology* 6, 271-277.
135. Rangaraju S, Aghaebrahim A, Streib C, Sun CJ, Ribo M, Muchada M, Nogueira RG, Frankel M, Gupta R, Jadhav A, and **Jovin TG** Pittsburgh Response to Endovascular therapy (PRE) Score: Optimizing Patient Selection for Endovascular Therapy for Large Vessel Occlusion Strokes *J Neurointerv Surg*. 2014 Oct 15.
  136. Voronovich Z, Grandhi R, Zwagerman NT, Jadhav AP, **Jovin TG**. Manual Aspiration Thrombectomy for Basilar Infarction in the Setting of Persistent Primitive Hypoglossal Artery: Case Report and Review of the Literature. *Surgical Neurology International Surg Neurol Int*. 2014 Dec 19;5:182
  137. Grandhi R, Zwagerman NT, Zhang X, Chen SH, Jadhav AP, **Jovin T**, Jankowitz BT. Initial Experience with the AXERA 2 Femoral Access System in Neurovascular Procedures, *Interv Neuroradiol*. 2015 May 26.
  138. Broderick JP, Palesch YY, Demchuk AM, Yeatts SD, Khatri P, Hill MD, Jauch EC, **Jovin TG**, Yan B, von Kummer R, Molina CA, Goyal M, Mazighi M, Schonewille WJ, Engelter ST, Anderson C, Spilker J, Carrozzella J, Janis LS, Foster LD, Tomsick TA; Interventional Management of Stroke III Investigators. Stroke Evolution of Practice During the Interventional Management of Stroke III Trial and Implications for Ongoing Trials. 2014 Dec;45(12):3606-11.
  139. McTaggart RA, **Jovin TG**, Lansberg MG, Mlynash M, Jayaraman MV, Choudhri OA, Inoue M, Marks MP, Albers GW. Alberta Stroke Program Early Computed Tomographic Scoring Performance in a Series of Patients Undergoing Computed Tomography and MRI: Reader Agreement, Modality Agreement, and Outcome Prediction. *Stroke*. 2014 Dec 23.
  140. Demchuk AM, Goyal M, Menon BK, Eesa M, Ryckborst KJ, Kamal N, Patil S, Mishra S, Almekhlafi M, Randhawa PA, Roy D, Willinsky R, Montanera W, Silver FL, Shuaib A, Rempel J, **Jovin T**, Frei D, Sapkota B, Thornton JM, Poppe A, Tampieri D, Lum C, Weill A, Sajobi TT, Hill MD; ESCAPE Trial Investigators. Endovascular treatment for Small Core and Anterior Circulation Proximal Occlusion with Emphasis on minimizing CT to recanalization times (ESCAPE) trial: methodology. *Int J Stroke*. 2014 Dec 25.
  141. Endovascular revascularization results in IMS III: intracranial ICA and M1 occlusions. Tomsick TA, Yeatts SD, Liebeskind DS, Carrozzella J, Foster L, Goyal M, von Kummer R, Hill MD, Demchuk AM, **Jovin T**, Zaidat OO, Schonewille W, Engelter S, Martin R, Khatri P, Spilker J, Palesch YY, Broderick JP; for the IMS III Investigators. *J Neurointerv Surg*. 2014 Oct 23.
  142. Aghaebrahim A, Leiva-Salinas C, Jadhav AP, Jankowitz B, Zaidi S, Jumaa M, Urrea X, Amorim E, Zhu G, Giurgiutiu DV, Horev A, Reddy V, Hammer M, Wechsler L, Wintermark M, **Jovin TG**. Outcomes after endovascular treatment for anterior circulation stroke presenting as wake-up strokes are not different than those with witnessed onset beyond 8 hours. *J Neurointerv Surg*. 2014 Oct 17.
  143. Broderick JP, Palesch YY, Demchuk AM, Yeatts SD, Khatri P, Hill MD, Jauch EC, **Jovin TG**, Yan B, von Kummer R, Molina CA, Goyal M, Mazighi M, Schonewille WJ, Engelter ST, Anderson C, Spilker J, Carrozzella J, Janis LS, Foster LD, Tomsick TA; Interventional Management of Stroke III Investigators.

- Evolution of practice during the Interventional Management of Stroke III Trial and implications for ongoing trials. *Stroke*. 2014 Dec;45(12):3606-11.
144. Khatri P, Hacke W, Fiehler J, Saver JL, Diener HC, Bendzus M, Bracard S, Broderick J, Campbell B, Ciccone A, Dávalos A, Davis S, Demchuk AM, Dippel D, Donnan G, Fiorella D, Goyal M, Hill MD, Jauch EC, **Jovin TG**, Kidwell CS, Majoie C, Martins SC, Mitchell P, Mocco J, Muir K, Nogueira RG, Schonewille WJ, Siddiqui AH, Thomalla G, Tomsick TA, Turk AS, White PM, Zaidat OO, Liebeskind DS, Fulton R, Lees KR; VISTA-Endovascular Collaboration. State of acute endovascular therapy: report from the 12th thrombolysis, thrombectomy, and acute stroke therapy conference. *Stroke*. 2015 Jun;46 (6):1727-34.
  145. Saver JL, Goyal M, Bonafe A, Diener HC, Levy EI, Pereira VM, Albers GW, Cognard C, Cohen DJ, Hacke W, Jansen O, **Jovin TG**, Mattle HP, Nogueira RG, Siddiqui AH, Yavagal DR, Devlin TG, Lopes DK, Reddy V, du Mesnil de Rochemont R, Jahan R; SWIFT PRIME Investigators. Solitaire™ with the Intention for Thrombectomy as Primary Endovascular Treatment for Acute Ischemic Stroke (SWIFT PRIME) trial: protocol for a randomized, controlled, multicenter study comparing the Solitaire revascularization device with IV tPA with IV tPA alone in acute ischemic stroke. *Int J Stroke*. 2015 Apr;10 (3):439-48.
  146. Chen SH, Grandhi R, Deibert CP, **Jovin TG**, Gardner PA, Ducruet AF. Coil herniation following intra-arterial verapamil infusion for the treatment of cerebral vasospasm: Case report and literature review. *Interv Neuroradiol*. 2015 Apr;21 (2):184-7.
  147. Demel SL, **Jovin TG**, Jadhav AP. Metronidazole toxicity presenting with acute onset of aphasia and right sided weakness. *J Clin Neurosci*. 2015 Mar 18. pii: S0967-5868(15)00066-1.
  148. Kenmuir CL, Hammer M, **Jovin T**, Reddy V, Wechsler L, Jadhav A. Predictors of Outcome in Patients Presenting with Acute Ischemic Stroke and Mild Stroke Scale Scores. *J Stroke Cerebrovasc Dis*. 2015 May 2.
  149. Saver JL, Goyal M, Bonafe A, Diener HC, Levy EI, Pereira VM, Albers GW, Cognard C, Cohen DJ, Hacke W, Jansen O, **Jovin TG**, Mattle HP, Nogueira RG, Siddiqui AH, Yavagal DR, Baxter BW, Devlin TG, Lopes DK, Reddy VK, de Rochemont RD, Singer OC, Jahan R; SWIFT PRIME Investigators. Stent-Retriever Thrombectomy after Intravenous t-PA vs. t-PA Alone in Stroke. *N Engl J Med*. 2015 Apr 17 .
  150. Goyal M, Demchuk AM, Menon BK, Eesa M, Rempel JL, Thornton J, Roy D, **Jovin TG**, Willinsky RA, Sapkota BL, Dowlathshahi D, Frei DF, Kamal NR, Montanera WJ, Poppe AY, Ryckborst KJ, Silver FL, Shuaib A, Tampieri D, Williams D, Bang OY, Baxter BW, Burns PA, Choe H, Heo JH, Holmstedt CA, Jankowitz B, Kelly M, Linares G, Mandzia JL, Shankar J, Sohn SI, Swartz RH, Barber PA, Coutts SB, Smith EE, Morrish WF, Weill A, Subramaniam S, Mitha AP, Wong JH, Lowerison MW, Sajobi TT, Hill MD; ESCAPE Trial Investigators. Randomized assessment of rapid endovascular treatment of ischemic stroke. *N Engl J Med*. 2015 Mar 12;372(11):1019-30.
  151. Sheth SA, Jahan R, Levy EI, **Jovin TG**, Baxter B, Nogueira RG, Clark W, Budzik R, Zaidat OO, Saver JL; for the SWIFT Trialists. Rapid learning curve for

- Solitaire FR stent retriever therapy: evidence from roll-in and randomized patients in the SWIFT trial. *J Neurointerv Surg*. 2015 Feb 12.
152. McTaggart RA, **Jovin TG**, Lansberg MG, Mlynash M, Jayaraman MV, Choudhri OA, Inoue M, Marks MP, Albers GW; DEFUSE 2 Investigators. Alberta stroke program early computed tomographic scoring performance in a series of patients undergoing computed tomography and MRI: reader agreement, modality agreement, and outcome prediction. *Stroke*. 2015 Feb;46(2):407-12.
  153. Menon BK, Qazi E, Nambiar V, Foster LD, Yeatts SD, Liebeskind D, **Jovin TG**, Goyal M, Hill MD, Tomsick TA, Broderick JP, Demchuk AM; Interventional Management of Stroke III Investigators. Differential Effect of Baseline Computed Tomographic Angiography Collaterals on Clinical Outcome in Patients Enrolled in the Interventional Management of Stroke III Trial. *Stroke*. 2015 May;46(5):1239-44.
  154. **Jovin TG**, Chamorro A, Cobo E, de Miquel MA, Molina CA, Rovira A, Román LS, Serena J, Abilleira S, Ribó M, Millán M, Urta X, Cardona P, López-Cancio E, Tomasello A, Castaño C, Blasco J, Aja L, Dorado L, Quesada H, Rubiera M, Hernandez-Pérez M, Goyal M, Demchuk AM, von Kummer R, Gallofré M, Dávalos A; REVASCAT Trial Investigators. Thrombectomy within 8 Hours after Symptom Onset in Ischemic Stroke. *N Engl J Med*. 2015 Apr 17. [Epub ahead of print]
  155. López-Cancio E, Salvat M, Cerdà N, Jiménez M, Códas J, Llull L, Boned S, Cano LM, Lara B, Molina C, Cobo E, Dávalos A, **Jovin TG**, Serena J; REVASCAT investigators. Phone and Video-Based Modalities of Central Blinded Adjudication of Modified Rankin Scores in an Endovascular Stroke Trial. *Stroke*. 2015 Dec;46(12):3405-10.
  156. Urta X, Abilleira S, Dorado L, Ribó M, Cardona P, Millán M, Chamorro A, Molina C, Cobo E, Dávalos A, **Jovin TG**, Gallofré M; Mechanical Thrombectomy in and Outside the REVASCAT Trial: Insights From a Concurrent Population-Based Stroke Registry Catalan. Stroke Code and Reperfusion Consortium. *Stroke*. 2015 Dec;46(12):3437-42.
  157. Broderick JP, Berkhemer OA, Palesch YY, Dippel DW, Foster LD, Roos YB, van der Lugt A, Tomsick TA, Majoie CB, van Zwam WH, Demchuk AM, van Oostenbrugge RJ, Khatri P, Lingsma HF, Hill MD, Roozenbeek B, Jauch EC, **Jovin TG**, Yan B, von Kummer R, Molina CA, Goyal M, Schonewille WJ, Mazighi M, Engelter ST, Anderson CS, Spilker J, Carrozzella J, Ryckborst KJ, Janis LS, Simpson KN; Endovascular Therapy Is Effective and Safe for Patients With Severe Ischemic Stroke: Pooled Analysis of Interventional Management of Stroke III and Multicenter Randomized Clinical Trial of Endovascular Therapy for Acute Ischemic Stroke in the Netherlands Data. IMS II and MR CLEAN Investigators. *Stroke*. 2015 Dec;46(12):3416-22.
  158. Albers GW, Goyal M, Jahan R, Bonafe A, Diener HC, Levy EI, Pereira VM, Cognard C, Cohen DJ, Hacke W, Jansen O, **Jovin TG**, Mattle HP, Nogueira RG, Siddiqui AH, Yavagal DR, Baxter BW, Devlin TG, Lopes DK, Reddy VK, du Mesnil de Rochemont R, Singer OC, Bammer R, Saver JL. Ischemic core and hypoperfusion volumes predict infarct size in SWIFT PRIME. *Ann Neurol*. 2015 Oct 17.

159. Chaisinanunkul N, Adeoye O, Lewis RJ, Grotta JC, Broderick J, **Jovin TG**, Nogueira RG, Elm JJ, Graves T, Berry S, Lees KR, Barreto AD, Saver JL; DAWN Trial and MOST Trial Steering Committees; Additional contributors from DAWN Trial Steering Committee. Adopting a Patient-Centered Approach to Primary Outcome Analysis of Acute Stroke Trials Using a Utility-Weighted Modified Rankin Scale. *Stroke*. 2015 Aug;46(8):2238-43.
160. Engel-Haber E, Horev A, Chablani P, Bornstein NM, Jadhav A, **Jovin TG**, Reddy V, Hammer MD. Aspirin Response Test role in platelet transfusion following intracerebral hemorrhage. *Clin Neurol Neurosurg*. 2015 Oct;137:12-4.
161. Rangaraju S, Streib C, Aghaebrahim A, Jadhav A, Frankel M, **Jovin TG**. Relationship Between Lesion Topology and Clinical Outcome in Anterior Circulation Large Vessel Occlusions. *Stroke*. 2015 Jul;46(7):1787-92.
162. Liebeskind DS, Jahan R, Nogueira RG, **Jovin TG**, Lutsep HL, Saver JL; SWIFT Investigators. Early arrival at the emergency department is associated with better collaterals, smaller established infarcts and better clinical outcomes with endovascular stroke therapy: SWIFT study. *J Neurointerv Surg*. 2015 May 11.
163. Khatri P, Hacke W, Fiehler J, Saver JL, Diener HC, Bendszus M, Bracard S, Broderick J, Campbell B, Ciccone A, Dávalos A, Davis S, Demchuk AM, Dippel D, Donnan G, Fiorella D, Goyal M, Hill MD, Jauch EC, **Jovin TG**, Kidwell CS, Majoie C, Martins SC, Mitchell P, Mocco J, Muir K, Nogueira RG, Schonewille WJ, Siddiqui AH, Thomalla G, Tomsick TA, Turk AS, White PM, Zaidat OO, Liebeskind DS, Fulton R, Lees KR; VISTA-Endovascular Collaboration. State of acute endovascular therapy: report from the 12th thrombolysis, thrombectomy, and acute stroke therapy conference. *Stroke*. 2015 Jun;46(6):1727-34.
164. Chen SH, Grandhi R, Deibert CP, **Jovin TG**, Gardner PA, Ducruet AF. Coil herniation following intra-arterial verapamil infusion for the treatment of cerebral vasospasm: Case report and literature review. *Interv Neuroradiol*. 2015 Apr;21(2):184-7.
165. Palesch YY, Yeatts SD, Tomsick TA, Foster LD, Demchuk AM, Khatri P, Hill MD, Jauch EC, **Jovin TG**, Yan B, von Kummer R, Molina CA, Goyal M, Schonewille WJ, Mazighi M, Engelter ST, Anderson C, Spilker J, Carrozzella J, Ryckborst KJ, Janis LS, Simpson A, Simpson KN, Broderick JP; Interventional Management of Stroke III Investigators. Twelve-Month Clinical and Quality-of-Life Outcomes in the Interventional Management of Stroke III Trial. *Stroke*. 2015 May;46(5):1321-7.
166. Demel SL, **Jovin TG**, Jadhav AP. Metronidazole toxicity presenting with acute onset of aphasia and right sided weakness. *J Clin Neurosci*. 2015 Jul;22(7):1199-200.
167. Menon BK, Qazi E, Nambiar V, Foster LD, Yeatts SD, Liebeskind D, **Jovin TG**, Goyal M, Hill MD, Tomsick TA, Broderick JP, Demchuk AM; Interventional Management of Stroke III Investigators. Differential Effect of Baseline Computed Tomographic Angiography Collaterals on Clinical Outcome in Patients Enrolled in the Interventional Management of Stroke III Trial. *Stroke*. 2015 May;46(5):1239-44.
168. Sheth SA, Jahan R, Levy EI, **Jovin TG**, Baxter B, Nogueira RG, Clark W, Budzik R, Zaidat OO, Saver JL; Rapid learning curve for Solitaire FR stent

- retriever therapy: evidence from roll-in and randomised patients in the SWIFT trial. for the SWIFT Trialists. *J Neurointerv Surg*. 2015 Feb 12.
169. Batal O, Jentzer J, Balaney B, Kolia N, Hickey G, Dardari Z, Reddy V, **Jovin T**, Hammer M, Gorcsan J, Schmidhofer M. The prognostic significance of troponin I elevation in acute ischemic stroke. *J Crit Care*. 2015 Sep 25.
  170. Haussen DC, Jadhav A, **Jovin T**, Grossberg J, Grigoryan M, Nahab F, Obideen M, Lima A, Aghaebrahim A, Gulati D, Nogueira RG. Endovascular Management vs Intravenous Thrombolysis for Acute Stroke Secondary to Carotid Artery Dissection: Local Experience and Systematic Review. *Neurosurgery*. 2015 Oct 21.
  171. De Rango P, Brown MM, Chaturvedi S, Howard VJ, **Jovin T**, Mazya MV, Paciaroni M, Manzone A, Farchioni L, Caso V. Summary of Evidence on Early Carotid Intervention for Recently Symptomatic Stenosis Based on Meta-Analysis of Current Risks. *Stroke*. 2015 Dec;46(12):3423-36.
  172. Vagal AS, Sucharew H, Prabhakaran S, Khatri P, **Jovin T**, Michel P, Wintermark M. Final infarct volume discriminates outcome in mild strokes. *Neuroradiol J*. 2015 Aug;28(4):404-8.
  173. MacIsaac RL, Khatri P, Bendszus M, Bracard S, Broderick J, Campbell B, Ciccone A, Dávalos A, Davis SM, Demchuk A, Diener HC, Dippel D, Donnan GA, Fiehler J, Fiorella D, Goyal M, Hacke W, Hill MD, Jahan R, Jauch E, **Jovin T**, Kidwell CS, Liebeskind D, Majoie CB, Martins SC, Mitchell P, Mocco J, Muir KW, Nogueira R, Saver JL, Schonewille WJ, Siddiqui AH, Thomalla G, Tomsick TA, Turk AS, White P, Zaidat O, Lees KR; VISTA Endovascular collaboration. A collaborative sequential meta-analysis of individual patient data from randomized trials of endovascular therapy and tPA vs. tPA alone for acute ischemic stroke: Thrombectomy And tPA (TREAT) analysis: statistical analysis plan for a sequential meta-analysis performed within the VISTA-Endovascular collaboration. *Int J Stroke*. 2015 Oct;10 Suppl A100:136-44.
  174. Tomsick TA, Foster LD, Liebeskind DS, Hill MD, Carrozella J, Goyal M, von Kummer R, Demchuk AM, Dzialowski I, Puetz V, **Jovin T**, Morales H, Palesch YY, Broderick J, Khatri P, Yeatts SD; IMS III Investigators. Outcome Differences between Intra-Arterial Iso- and Low-Osmolality Iodinated Radiographic Contrast Media in the Interventional Management of Stroke III Trial. *AJNR Am J Neuroradiol*. 2015 Nov;36(11):2074-81.
  175. Abou-Chebl A, Yeatts SD, Yan B, Cockroft K, Goyal M, **Jovin T**, Khatri P, Meyers P, Spilker J, Sugg R, Wartenberg KE, Tomsick T, Broderick J, Hill MD. Impact of General Anesthesia on Safety and Outcomes in the Endovascular Arm of Interventional Management of Stroke (IMS) III Trial. *Stroke*. 2015 Aug;46(8):2142-8.
  176. Morales A, Parry PV, Jadhav A, **Jovin T**. A novel route of revascularization in basilar artery occlusion and review of the literature. *J Neurointerv Surg*. 2015 Jun 10.
  177. Ribo M, Molina CA, Cobo E, Cerdà N, Tomasello A, Quesada H, De Miquel MA, Millan M, Castaño C, Urra X, Sanroman L, Dávalos A, **Jovin T**; REVASCAT Trial Investigators. Association Between Time to Reperfusion and

- Outcome Is Primarily Driven by the Time From Imaging to Reperfusion. *Stroke*. 2016 Apr;47(4):999-1004.
178. Lavine SD, Cockcroft K, Hoh B, Bambakidis N, Khalessi AA, Woo H, Riina H, Siddiqui A, Hirsch JA, Chong W, Rice H, Wenderoth J, Mitchell P, Coulthard A, Signh TJ, Phatorous C, Khangure M, Klurfan P, terBrugge K, Iancu D, Gunnarsson T, Jansen O, Muto M, Szikora I, Pierot L, Brouwer P, Gralla J, Renowden S, Andersson T, Fiehler J, Turjman F, White P, Januel AC, Spelle L, Kulcsar Z, Chapot R, Spelle L, Biondi A, Dima S, Taschner C, Szajner M, Krajina A, Sakai N, Matsumaru Y, Yoshimura S, Ezura M, Fujinaka T, Iihara K, Ishii A, Higashi T, Hirohata M, Hyodo A, Ito Y, Kawanishi M, Kiyosue H, Kobayashi E, Kobayashi S, Kuwayama N, Matsumoto Y, Miyachi S, Murayama Y, Nagata I, Nakahara I, Nemoto S, Niimi Y, Oishi H, Satomi J, Satow T, Sugiu K, Tanaka M, Terada T, Yamagami H, Diaz O, Lylyk P, Jayaraman MV, Patsalides A, Gandhi CD, Lee SK, Abruzzo T, Albani B, Ansari SA, Arthur AS, Baxter BW, Bulsara KR, Chen M, Delgado Almandoz JE, Fraser JF, Heck DV, Hetts SW, Hussain MS, Klucznik RP, Leslie-Mawzi TM, Mack WJ, McTaggart RA, Meyers PM, Mocco J, Prestigiacomo CJ, Pride GL, Rasmussen PA, Starke RM, Sunenshine PJ, Tarr RW, Frei DF, Ribo M, Nogueira RG, Zaidat OO, **Jovin T**, Linfante I, Yavagal D, Liebeskind D, Novakovic R, Pongpech S, Rodesch G, Soderman M, terBrugge K, Taylor A, Krings T, Orbach D, Biondi A, Picard L, Suh DC, Tanaka M, Zhang HQ. Training Guidelines for Endovascular Ischemic Stroke Intervention: An International Multi-Society Consensus Document. *AJNR Am J Neuroradiol*. 2016 Feb 18.
  179. Goyal M, Jadhav AP, Bonafe A, Diener H, Mendes Pereira V, Levy E, Baxter B<sup>1</sup>, **Jovin T**, Jahan R, Menon BK, Saver JL; SWIFT PRIME investigators. Analysis of Workflow and Time to Treatment and the Effects on Outcome in Endovascular Treatment of Acute Ischemic Stroke: Results from the SWIFT PRIME Randomized Controlled Trial. *Radiology*. 2016 Apr 19:160204.
  180. Menon BK, Sajobi TT, Zhang Y, Rempel JL, Shuaib A, Thornton J, Williams D, Roy D, Poppe AY, **Jovin TG**, Sapkota B, Baxter BW, Krings T, Silver FL, Frei DF, Fanale C, Tampieri D, Teitelbaum J, Lum C, Dowlathshahi D, Eesa M, Lowerison MW, Kamal NR, Demchuk AM, Hill MD, Goyal M. Analysis of Workflow and Time to Treatment on Thrombectomy Outcome in the ESCAPE Randomized Controlled Trial. *Circulation*. 2016 Apr 13.
  181. Lavine SD, Cockcroft K, Hoh B, Bambakidis N, Khalessi AA, Woo H, Riina H, Siddiqui A, Hirsch JA, Chong W, Rice H, Wenderoth J, Mitchell P, Coulthard A, Signh TJ, Phatorous C, Khangure M, Klurfan P, terBrugge K, Iancu D, Gunnarsson T, Jansen O, Muto M, Szikora I, Pierot L, Brouwer P, Gralla J, Renowden S, Andersson T, Fiehler J, Turjman F, White P, Januel AC, Spelle L, Kulcsar Z, Chapot R, Spelle L, Biondi A, Dima S, Taschner C, Szajner M, Krajina A, Sakai N, Matsumaru Y, Yoshimura S, Ezura M, Fujinaka T, Iihara K, Ishii A, Higashi T, Hirohata M, Hyodo A, Ito Y, Kawanishi M, Kiyosue H, Kobayashi E, Kobayashi S, Kuwayama N, Matsumoto Y, Miyachi S, Murayama Y, Nagata I, Nakahara I, Nemoto S, Niimi Y, Oishi H, Satomi J, Satow T, Sugiu K, Tanaka M, Terada T, Yamagami H, Diaz O, Lylyk P, Jayaraman MV, Patsalides A, Gandhi CD, Lee SK, Abruzzo T, Albani B, Ansari SA, Arthur AS,

- Baxter BW, Bulsara KR, Chen M, Delgado Almandoz JE, Fraser JF, Heck DV, Hetts SW, Hussain MS, Klucznik RP, Leslie-Mawzi TM, Mack WJ, McTaggart RA, Meyers PM, Mocco J, Prestigiacomo CJ, Pride GL, Rasmussen PA, Starke RM, Sunenshine PJ, Tarr RW, Frei DF, Ribo M, Nogueira RG, Zaidat OO, **Jovin T**, Linfante I, Yavagal D, Liebeskind D, Novakovic R, Pongpech S, Rodesch G, Soderman M, terBrugge K, Taylor A, Krings T, Orbach D, Biondi A, Picard L, Suh DC, Tanaka M, Zhang HQ. Training Guidelines for Endovascular Ischemic Stroke Intervention: An International Multi-Society Consensus Document. *Neuroradiology*. 2016 Apr 13.
182. English JD, Yavagal DR, Gupta R, Janardhan V, Zaidat OO, Xavier AR, Nogueira RG, Kirmani JF, **Jovin TG**. Mechanical Thrombectomy-Ready Comprehensive Stroke Center Requirements and Endovascular Stroke Systems of Care: Recommendations from the Endovascular Stroke Standards Committee of the Society of Vascular and Interventional Neurology (SVIN). *Interv Neurol*. 2016 Mar;4(3-4):138-50. Epub 2016 Feb 19.
  183. Rangaraju S, Frankel M, **Jovin TG**. Prognostic Value of the 24-Hour Neurological Examination in Anterior Circulation Ischemic Stroke: A post hoc Analysis of Two Randomized Controlled Stroke Trials. *Interv Neurol*. 2016 Mar;4(3-4):120-9. doi: 10.1159/000443801. Epub 2016 Feb 19.
  184. Jadhav AP, Ducruet AF, Jankowitz BT, **Jovin TG**. Management of Bilateral Carotid Occlusive Disease. *Interv Neurol*. 2016 Mar;4(3-4):96-103. doi: 10.1159/000442530. Epub 2016 Jan 6.
  185. Al-Ajlan FS, Goyal M, Demchuk AM, Minhas P, Sabiq F, Assis Z, Willinsky R, Montanera WJ, Rempel JL, Shuaib A, Thornton J, Williams D, Roy D, Poppe AY, **Jovin TG**, Sapkota BL, Baxter BW, Krings T, Silver FL, Frei DF, Fanale C, Tampieri D, Teitelbaum J, Lum C, Dowlatshahi D, Shankar JJ, Barber PA, Hill MD, Menon BK; ESCAPE Trial Investigators. Intra-Arterial Therapy and Post-Treatment Infarct Volumes: Insights From the ESCAPE Randomized Controlled Trial. *Stroke*. 2016 Mar;47(3):777-81.
  186. Campbell BC, Hill MD, Rubiera M, Menon BK, Demchuk A, Donnan GA, Roy D, Thornton J, Dorado L, Bonafe A, Levy EI, Diener HC, Hernández-Pérez M, Pereira VM, Blasco J, Quesada H, Rempel J, Jahan R, Davis SM, Stouch BC, Mitchell PJ, **Jovin TG**, Saver JL, Goyal M. Safety and Efficacy of Solitaire Stent Thrombectomy: Individual Patient Data Meta-Analysis of Randomized Trials. *Stroke*. 2016 Mar;47(3):798-806. .
  187. Leiva-Salinas C, Patrie JT, Xin W, Michel P, **Jovin T**, Wintermark M. Prediction of Early Arterial Recanalization and Tissue Fate in the Selection of Patients With the Greatest Potential to Benefit From Intravenous Tissue-Type Plasminogen Activator. *Stroke*. 2016 Feb;47(2):397-403. Epub 2015 Dec 22.
  188. Goyal M, Menon BK, van Zwam WH, Dippel DW, Mitchell PJ, Demchuk AM, Dávalos A, Majoie CB, van der Lugt A, de Miquel MA, Donnan GA, Roos YB, Bonafe A, Jahan R, Diener HC, van den Berg LA, Levy EI, Berkhemer OA, Pereira VM, Rempel J, Millán M, Davis SM, Roy D, Thornton J, Román LS, Ribó M, Beumer D, Stouch B, Brown S, Campbell BC, van Oostenbrugge RJ, Saver JL, Hill MD, **Jovin TG**; HERMES collaborators. Endovascular

- thrombectomy after large-vessel ischaemic stroke: a meta-analysis of individual patient data from five randomised trials. *Lancet*. 2016 Feb 18.
189. Ribo M, Molina CA, Cobo E, Cerdà N, Tomasello A, Quesada H, De Miquel MA, Millan M, Castaño C, Urrea X, Sanroman L, Dávalos A, Jovin T; REVASCAT Trial Investigators..Association Between Time to Reperfusion and Outcome Is Primarily Driven by the Time From Imaging to Reperfusion. *Stroke*. 2016 Apr;47(4):999-1004.
  190. Warach SJ, Luby M, Albers GW, Bammer R, Bivard A, Campbell BC, Derdeyn C, Heit JJ, Khatri P, Lansberg MG, Liebeskind DS, Majoie CB, Marks MP, Menon BK, Muir KW, Parsons MW, Vagal A, Yoo AJ, Alexandrov AV, Baron JC, Fiorella DJ, Furlan AJ, Puig J, Schellinger PD, Wintermark M; Stroke Imaging Research (STIR) and VISTA-Imaging Investigators. Imaging Research Roadmap III Imaging Selection and Outcomes in Acute Stroke Reperfusion Clinical Trials: Consensus Recommendations and Further Research Priorities.*Stroke*. 2016 May;47(5):1389-98.
  191. Al-Bayati AR, Nichols J, **Jovin TG**, Jadhav AP. Thiamine Deficiency Presenting as Intraventricular Hemorrhage. *Stroke*. 2016 Jun;47(6):e95-7.
  192. **Jovin TG**, Albers GW, Liebeskind DS; STAIR IX Consortium. Stroke Treatment Academic Industry Roundtable: The Next Generation of Endovascular Trials. *Stroke*. 2016 Oct;47(10):2656-65.
  193. Saver JL, Goyal M, van der Lugt A, Menon BK, Majoie CB, Dippel DW, Campbell BC, Nogueira RG, Demchuk AM, Tomasello A, Cardona P, Devlin TG, Frei DF, du Mesnil de Rochemont R, Berkhemer OA, **Jovin TG**, Siddiqui AH, van Zwam WH, Davis SM, Castaño C, Sapkota BL, Franssen PS, Molina C, van Oostenbrugge RJ, Chamorro Á, Lingsma H, Silver FL, Donnan GA, Shuaib A, Brown S, Stouch B, Mitchell PJ, Dávalos A, Roos YB, Hill MD; HERMES Collaborators. Time to Treatment With Endovascular Thrombectomy and Outcomes From Ischemic Stroke: A Meta-analysis. *JAMA*. 2016 Sep 27;316(12):1279-88.
  194. Sequeira D, Martin-Gill C, Kesinger MR, Thompson LR, **Jovin TG**, Massaro LM, Guyette FX.Characterizing Strokes and Stroke Mimics Transported by Helicopter Emergency Medical Services. *Prehosp Emerg Care*. 2016 Nov-Dec;20(6):723-728.
  195. Ali Raza S, Xiang B, **Jovin TG**, Liebeskind DS, Shields R, Nogueira RG, Rangaraju S; Trevo2 study group. Pittsburgh response to endovascular therapy score as a pre-treatment prognostic tool: External validation in Trevo2. *Int J Stroke*. 2016 Nov 3.
  196. Trivedi D, Navid F, Balzer JR, Joshi R, Lacomis JM, **Jovin TG**, Althouse AD, Gleason TG.Aggressive Aortic Arch and Carotid Replacement Strategy for Type A Aortic Dissection Improves Neurologic Outcomes. *Ann Thorac Surg*. 2016 Mar;101(3):896-903;
  197. Ganesh A, Al-Ajlan FS, Sabiq F, Assis Z, Rempel JL, Butcher K, Thornton J, Kelly P, Roy D, Poppe AY, Jovin TG, Devlin T, Baxter BW, Krings T, Casaubon LK, Frei DF, Choe H, Tampieri D, Teitelbaum J, Lum C, Mandzia J, Phillips SJ, Bang OY, Almekhlafi MA, Coutts SB, Barber PA, Sajobi T, Demchuk AM, Eesa M, Hill MD, Goyal M, Menon BK; ESCAPE Trial Investigators..Infarct in a New

- Territory After Treatment Administration in the ESCAPE Randomized Controlled Trial (Endovascular Treatment for Small Core and Anterior Circulation Proximal Occlusion With Emphasis on Minimizing CT to Recanalization Times). *Stroke*. 2016 Nov 10. pii: STROKEAHA.116.014852.
198. Hou Q, Patrie JL, Xin W, Michel P, **Jovin T**, Eskandari A, Wintermark M. Number needed to screen for acute revascularization trials in stroke: Prognostic and predictive imaging biomarkers. *Int J Stroke*. 2016 Nov 2.
  199. Haussen DC, Jadhav A, Rebello LC, Belagaje S, Anderson A, **Jovin T**, Aghaebrahim A, Gulati D, Wells B, Frankel M, Nogueira RG. Internal Carotid Artery S-Shaped Curve as a Marker of Fibromuscular Dysplasia in Dissection-Related Acute Ischemic Stroke. *Interv Neurol*. 2016 Sep;5(3-4):185-192.
  200. Shams T, Zaidat O, Yavagal D, Xavier A, **Jovin T**, Janardhan V. Society of Vascular and Interventional Neurology (SVIN) Stroke Interventional Laboratory Consensus (SILC) Criteria: A 7M Management Approach to Developing a Stroke Interventional Laboratory in the Era of Stroke Thrombectomy for Large Vessel Occlusions. *Interv Neurol*. 2016 Jun;5(1-2):1-28.
  201. Saposnik G, Goyal M, Majoie C, Dippel D, Roos Y, Demchuk A, Menon B, Mitchell P, Campbell B, Dávalos A, Jovin T, Hill MD; HERMES collaborators and the Stroke Outcomes Research working group (SORCan). Visual aid tool to improve decision making in acute stroke care. *Int J Stroke*. 2016 Aug 16.
  202. Rangaraju S, Jovin TG, Frankel M, Schonewille WJ, Algra A, Kappelle LJ, Nogueira RG; BASICS Study Group. Neurologic Examination at 24 to 48 Hours Predicts Functional Outcomes in Basilar Artery Occlusion Stroke. *Stroke*. 2016 Oct;47(10):2534-40.
  203. Brinjikji W, Duffy S, Burrows A, Hacke W, Liebeskind D, Majoie CB, Dippel DW, Siddiqui AH, Khatri P, Baxter B, Nogueira R, Gounis M, **Jovin T**, Kallmes DF. Correlation of imaging and histopathology of thrombi in acute ischemic stroke with etiology and outcome: a systematic review. *J Neurointerv Surg*. 2016 May 10.
  204. López-Cancio E, **Jovin TG**, Cobo E, Cerda N, Jimenez M, Gomis M, Hernández-Pérez M, Cáceres C, Cardona P, Lara L, Renú A, Llull L, Boned S, Muchada M, Dávalos A. Endovascular treatment improves cognition after stroke. A secondary analysis of REVASCAT trial. *Neurology*. 2017 Jan 17;88(3):245-251.
  205. Shireman T, Wang K, Saver J, Goyal M, Bonafé A, Diener HC, Elad Levy E, Pereira VM, Albers G, Cognard C, Hacke W, Jansen O, **Jovin TG**, Mattle H, Nogueira N, Siddiqui A, Yavagal D, Devlin T, Lopes D, Reddy V, du Mesnil de Rochemont R, Jahan R, Vilain K, House J, Lee JM, and Cohen D. Cost-effectiveness of Solitaire Stent Retriever Thrombectomy for Acute Ischemic Stroke: Results from SWIFT-PRIME. *Stroke*. 2017 Feb;48(2):379-387.
  206. Dávalos A, Cobo E, Molina C, Chamorro A, Miquel MA, San Román L, Serena J, López-Cancio E, Ribó M, Millán M, Urra X, Cardona P, Tomasello A, Castaño C, Blasco J, Aja L, Rubiera M, Gomis M, Renú A, Lara B, Martí-Fàbregas J, Jankowitz BJ, Cerdà N, **Jovin TG** for the REVASCAT Trial Investigators.

- Benefit of thrombectomy is sustained at 12 months post treatment for acute ischemic stroke. One year results of the REVASCAT trial. *Lancet Neurol.* 2017 May;16(5):369-376
207. Stotts G, Poppe AY, Roy D, **Jovin TG**, Lum C, Williams D, Thornton J, Baxter BW, Devlin T, Frei DF, Fanale C, Shuaib A, Rempel JL, Menon BK, Demchuk AM, Goyal M, Hill MD. Defining the Role of the Stroke Physician During Endovascular Therapy of Acute Ischemic Stroke. *Stroke.* 2017 Mar;48(3):805-807
  208. Jadhav AP, Bouslama M, Aghaebrahim A, Rebello LC, Starr MT, Haussen DC, Ranginani M, Whalin MK, Jovin TG, Nogueira RG. Monitored Anesthesia Care vs Intubation for Vertebrobasilar Stroke Endovascular Therapy. *JAMA Neurol.* 2017 Jun 1;74(6):704-709.
  209. Heck DV, Roubin GS, Rosenfield KG, Gray WA, White CJ, **Jovin TG**, Matsumura JS, Lal BK, Katzen BT, Dabus G, Jankowitz BT, Brott TG. Neurology. Asymptomatic carotid stenosis: Medicine alone or combined with carotid revascularization. 2017 May 23;88(21):2061-2065.
  210. Simpson KN, Simpson AN, Mauldin PD, Palesch YY, Yeatts SD, Kleindorfer D, Tomsick TA, Foster LD, Demchuk AM, Khatri P, Hill MD, Jauch EC, **Jovin TG**, Yan B, von Kummer R, Molina CA, Goyal M, Schonewille WJ, Mazighi M, Engelter ST, Anderson C, Spilker J, Carrozzella J, Ryckborst KJ, Janis LS, Broderick JP; Interventional Management of Stroke (IMS) III Investigators. Observed Cost and Variations in Short Term Cost-Effectiveness of Therapy for Ischemic Stroke in Interventional Management of Stroke (IMS) III. *J Am Heart Assoc.* 2017 May 8;6(5).
  211. Jadhav AP, Kenmuir CL, Aghaebrahim A, Limaye K, Wechsler LR, Hammer MD, Starr MT, Molyneaux BJ, Rocha M, Guyette FX, Martin-Gill C, Ducruet AF, Gross BA, Jankowitz BT, **Jovin TG**. Interfacility Transfer Directly to the Neuroangiography Suite in Acute Ischemic Stroke Patients Undergoing Thrombectomy. *Stroke.* 2017 Jul;48(7):1884-1889.
  212. Lansberg MG, Christensen S, Kemp S, Mlynash M, Mishra N, Federau C, Tsai JP, Kim S, Nogueira RG, Jovin T, Devlin TG, Akhtar N, Yavagal DR, Haussen D, Dehkharghani S, Bammer R, Straka M, Zaharchuk G, Marks MP, Albers GW; CT Perfusion to Predict Response to Recanalization in Ischemic Stroke Project (CRISP) Investigators. Computed tomographic perfusion to Predict Response to Recanalization in ischemic stroke. *Ann Neurol.* 2017 Jun;81(6):849-856.
  213. Jiang B, Ball RL, Michel P, Jovin T, Desai M, Eskandari A, Naqvi Z, Wintermark M. Prevalence of Imaging Biomarkers to Guide the Planning of Acute Stroke Reperfusion Trials. *Stroke.* 2017 Jun;48(6):1675-1677.
  214. Kashkoush AI, Ma H, Agarwal N, Panczykowski D, Tonetti D, Weiner GM, Ares W, Kenmuir C, Jadhav A, Jovin T, Jankowitz BT, Gross BA. Cerebral venous sinus thrombosis in pregnancy and puerperium: A pooled, systematic review. *J Clin Neurosci.* 2017 May;39:9-15.
  215. Alan N, Nwachuku E, **Jovin TG**, Jankowitz BT, Jadhav AP, Ducruet AF. Management of Iatrogenic Direct Carotid Cavernous Fistula Occurring During Endovascular Treatment of Stroke. *World Neurosurg.* 2017 Apr;100:710

216. **Jovin TG**, Saver JL, Ribo M, Pereira V, Furlan A, Bonafe A, Baxter B, Gupta R, Lopes D, Jansen O, Smith W, Gress D, Hetts S, Lewis RJ, Shields R, Berry SM, Graves TL, Malisch T, Rai A, Sheth KN, Liebeskind DS, Nogueira RG. Diffusion-weighted imaging or computerized tomography perfusion assessment with clinical mismatch in the triage of wake up and late presenting strokes undergoing neurointervention with Trevo (DAWN) trial methods. *Int J Stroke*. 2017 Aug;12(6):641-652.
217. Jadhav AP, Aghaebrahim A, Horev A, Giurgiutiu DV, Ducruet AF, Jankowitz B, **Jovin TG**. Stent Retriever-Mediated Manual Aspiration Thrombectomy for Acute Ischemic Stroke. *Interv Neurol*. 2017 Mar;6(1-2):16-24.
218. Ares WJ, Grandhi RM, Panczykowski DM, Weiner GM, Thirumala P, Habeych ME, Crammond DJ, Horowitz MB, Jankowitz BT, Jadhav A, **Jovin TG**, Ducruet AF, Balzer. Diagnostic Accuracy of Somatosensory Evoked Potential Monitoring in Evaluating Neurological Complications During Endovascular Aneurysm Treatment. *J. Oper Neurosurg (Hagerstown)*. 2017 Jun 14.
219. Shazly TA, Jadhav AP, Aghaebrahim A, Ducruet AF, Jankowitz BT, **Jovin TG**, Bonhomme GR. Venous sinus stenting shortens the duration of medical therapy for increased intracranial pressure secondary to venous sinus stenosis. *J Neurointerv Surg*. 2017 May 9. [Epub ahead of print]
220. Hou Q, Patrie JL, Xin W, Michel P, **Jovin T**, Eskandari A, Wintermark M. Number needed to screen for acute revascularization trials in stroke: Prognostic and predictive imaging biomarkers. *Int J Stroke*. 2017 Jun;12(4):356-367.
221. Day AL, Siddiqui AH, Meyers PM, **Jovin TG**, Derdeyn CP, Hoh BL, Riina H, Linfante I, Zaidat O, Turk A, Howington JU, Mocco J, Ringer AJ, Veznedaroglu E, Khalessi AA, Levy EI, Woo H, Harbaugh R, Giannotta S. Training Standards in Neuroendovascular Surgery: Program Accreditation and Practitioner Certification. *Stroke*. 2017 Aug;48(8):2318-2325.
222. Walker GB, Jadhav AP, **Jovin TG**. Assessing the efficacy of endovascular therapy in stroke treatments: updates from the new generation of trials. *Expert Rev Cardiovasc Ther*. 2017 Aug 9.
223. De Meyer SF, Andersson T, Baxter B, Bendszus M, Brouwer P, Brinjikji W, Campbell BC, Costalat V, Dávalos A, Demchuk A, Dippel D, Fiehler J, Fischer U, Gilvarry M, Gounis MJ, Gralla J, Jansen O, **Jovin T**, Kallmes D, Khatri P, Lees KR, López-Cancio E, Majoie C, Marquering H, Narata AP, Nogueira R, Ringleb P, Siddiqui A, Szikora I, Vale D, von Kummer R, Yoo AJ, Hacke W, Liebeskind DS; Clot Summit Group. *Int J Stroke*. 2017 Aug;12(6):606-614.
224. Gandhoke GS, Pandya YK, Jadhav AP, **Jovin T**, Friedlander RM, Smith KJ, Jankowitz BT. Cost of coils for intracranial aneurysms: clinical decision analysis for implementation of a capitation model. *J Neurosurg*. 2017 Aug 25:1-7. [Epub ahead of print]
225. Rocha M, **Jovin TG**. Fast Versus Slow Progressors of Infarct Growth in Large Vessel Occlusion Stroke: Clinical and Research Implications. *Stroke*. 2017 Aug 9.
226. Gross BA, Jadhav AP, Jovin TG, Jankowitz BT. Dump the pump: manual aspiration thrombectomy (MAT) with a syringe is technically effective, expeditious, and cost-efficient. *J Neurointerv Surg*. 2017 Nov 10 [Epub ahead of print]

227. Gross BA, Tonetti DA, Weiner GM, Panczykowski DM, Ares WJ, Kenmuir CL, Jadhav AP, **Jovin TG**, Jankowitz BT. Septoplasty: Scepter Balloon Angioplasty for Vasospasm after Aneurysmal Subarachnoid Hemorrhage. *Interv Neurol*. 2017 Oct;6(3-4):229-235. Epub 2017 Jun 21.
228. Ares WJ, Kenmuir CL, Panczykowski DM, Weiner GM, Jadhav AP, **Jovin TG**, Gross BA, Jankowitz BT. A Critical Analysis of the Utility of Intra-Operative Angiography. *World Neurosurg*. 2017 Oct 26. [Epub ahead of print]
229. Rocha M, Delfyett WT, Agarwal V, Aghaebrahim A, Jadhav A, **Jovin TG**. Diagnostic accuracy of emergency CT angiography for presumed tandem internal carotid artery occlusion before acute endovascular therapy. *J Neurointerv Surg*. 2017 Nov 3. [Epub ahead of print]
230. Bouslama M, Haussen DC, Aghaebrahim A, Grossberg JA, Walker G, Rangaraju S, Horev A, Frankel MR, Nogueira RG, **Jovin TG**, Jadhav AP. Predictors of Good Outcome After Endovascular Therapy for Vertebrobasilar Occlusion Stroke. *Stroke*. 2017 Oct 31 [Epub ahead of print]
231. Winningham MJ, Haussen DC, Nogueira RG, Liebeskind DS, Smith WS, Lutsep HL, **Jovin TG**, Xiang B, Nahab F. Periprocedural heparin use in acute ischemic stroke endovascular therapy: the TREVO 2 trial. *J Neurointerv Surg*. 2017 Oct 31. [Epub ahead of print]
232. Jadhav AP, Diener HC, Bonafe A, Pereira VM, Levy EI, Baxter BW, **Jovin TG**, Nogueira RG, Yavagal DR, Cognard C, Purcell DD, Menon BK, Jahan R, Saver JL, Goyal M; SWIFT PRIME investigators. Correlation between Clinical Outcomes and Baseline CT and CT Angiographic Findings in the SWIFT PRIME Trial. *AJNR Am J Neuroradiol*. 2017 Oct 12. [Epub ahead of print]
233. Gross BA, Jadhav AP, **Jovin TG**. Letter by Gross et al Regarding Article, "Immediate Vascular Imaging Needed for Efficient Triage of Patients With Acute Ischemic Stroke Initially Admitted to Nonthrombectomy Centers". *Stroke*. 2017 Nov;48(11):e326. Epub 2017 Sep 27.
234. Bambakidis NC, Cockroft K, Hu YC, Hirsch JA, Heck D, Furlan AJ, **Jovin T**, Mocco JD, Pace J, Siddiqui A, Amin-Hanjani S, Zipfel G, Hoh B, Nakaji P, Lavine S; Procedural Requirements and Certification Paradigms for Stroke Care Delivery: Perspective of Neurointerventional Professional Societies. American Association of Neurological Surgeons/Congress of Neurological Surgeons Joint Cerebrovascular Section (Endorsed by Society of Vascular and Interventional Neurology, Society of NeuroInterventional Surgery, and American Society of Neuroradiology). *Stroke*. 2017 Oct;48(10):2901-2904. Epub 2017 Sep 15.
235. Jadhav AP, **Jovin TG**. Response by Jadhav et al to Letter Regarding Article, "Interfacility Transfer Directly to the Neuroangiography Suite in Acute Ischemic Stroke Patients Undergoing Thrombectomy". *Stroke*. 2017 Oct; 48(10):e314. Epub 2017 Sep 8.
236. Gross BA, Albuquerque FC, McDougall CG, Jankowitz BT, Jadhav AP, **Jovin TG**, Du R. A multi-institutional analysis of the untreated course of cerebral dural arteriovenous fistulas. *J Neurosurg*. 2017 Dec 15:1-6. doi: 10.3171/2017.6.JNS171090. [Epub ahead of print]
237. Evans JW, Graham BR, Pordeli P, Al-Ajlan FS, Willinsky R, Montanera WJ, Rempel JL, Shuaib A, Brennan P, Williams D, Roy D, Poppe AY, **Jovin TG**,

- Devlin T, Baxter BW, Krings T, Silver FL, Frei DF, Fanale C, Tampieri D, Teitelbaum J, Iancu D, Shankar J, Barber PA, Demchuk AM, Goyal M, Hill MD, Menon BK; ESCAPE Trial Investigators. Time for a Time Window Extension: Insights from Late Presenters in the ESCAPE Trial. *AJNR Am J Neuroradiol*. 2018 Jan;39(1):102-106. doi: 10.3174/ajnr.A5462. Epub 2017 Nov 30.
238. Al-Ajlan FS, Al Sultan AS, Minhas P, Assis Z, de Miquel MA, Millán M, San Román L, Tomassello A, Demchuk AM, **Jovin TG**, Cuadras P, Dávalos A, Goyal M, Menon BK; REVASCAT Investigators. Posttreatment Infarct Volumes when Compared with 24-Hour and 90-Day Clinical Outcomes: Insights from the REVASCAT Randomized Controlled Trial. *AJNR Am J Neuroradiol*. 2018 Jan;39(1):107-110.
  239. Mehta A, Choxi R, Gleason T, Wechsler L, **Jovin T**, Thirumala PD. Carotid Artery Disease as a Predictor of In-Hospital Postoperative Stroke After Coronary Artery Bypass Grafting From 1999 to 2011. *J Cardiothorac Vasc Anesth*. 2017 Oct 9. pii: S1053-0770(17)30794-2. doi: 10.1053/j.jvca.2017.10.010. [Epub ahead of print]
  240. Effect of general anaesthesia on functional outcome in patients with anterior circulation ischaemic stroke having endovascular thrombectomy versus standard care: a meta-analysis of individual patient data. Campbell BCV, van Zwam WH, Goyal M, Menon BK, Dippel DWJ, Demchuk AM, Bracard S, White P, Dávalos A, Majoie CBLM, van der Lugt A, Ford GA, de la Ossa NP, Kelly M, Bourcier R, Donnan GA, Roos YBWEM, Bang OY, Nogueira RG, Devlin TG, van den Berg LA, Clarençon F, Burns P, Carpenter J, Berkhemer OA, Yavagal DR, Pereira VM, Ducrocq X, Dixit A, Quesada H, Epstein J, Davis SM, Jansen O, Rubiera M, Urra X, Micard E, Lingsma HF, Naggara O, Brown S, Guillemin F, Muir KW, van Oostenbrugge RJ, Saver JL, **Jovin TG**, Hill MD, Mitchell PJ; HERMES collaborators. *Lancet Neurol*. 2018 Jan;17(1):47-53. doi: 10.1016/S1474-4422(17)30407-6. Epub 2017 Dec 16.
  241. Jadhav AP, Desai SM, Kenmuir CL, Rocha, M, Starr, MT, Molyneaux, B, Gross BA, Jankowitz BT, **Jovin TG**, Eligibility for Endovascular Trial Enrollment in the 6- to 24-Hour Time Window. Analysis of a Single Comprehensive Stroke Center. *Stroke*. 2018;49:00-00.DOI: 10.1161/STROKEAHA.117.020273. Epub ahead of print March 2018
  242. Gross B, Ares W, Kenmuir C, Jadhav A, Jovin T, Jankowitz B. 5 French SOFIA: Safe Access and Support in the ACA, PCA and M2. *Interv Neurol*. 2018.
  243. Zaidat OO, Bozorgchami H, Ribó M, Saver JL, Chapot R, Narata AP, Francois O, Jadhav A, Grossberg JA, Riedel CH, Tomasello A, Clark WM, Nordmeyer H, Lin E, Nogueira R, Yoo A, **Jovin T**, Siddiqui AH, Claffey M, Mattle HP, Anderson T. Primary Results of the Multicenter Analysis of Revascularization in Ischemic Stroke with EmboTrap (ARISE II) Study. *Stroke* 2018.
  244. Zussman B, Gross B, Ares W, Kenmuir C, Weiner G, Panczykowski D, Jadhav A, **Jovin T**, Jankowitz B. Stent Reconstruction of Carotid Tonsillar Loop Dissection using Telescoping Peripheral Stents. *Interv Neurol*. 2018.
  245. Nogueira RG, Jadhav AP, Haussen DC, Bonafe A, Budzik RF, Bhuva P, Yavagal DR, Ribo M, Cognard C, Hanel RA, Sila CA, Hassan AE, Millan M, Levy EI, Mitchell P, Chen M, English JD, Shah QA, Silver FL, Pereira VM, Mehta BP,

- Baxter BW, Abraham MG, Cardona P, Veznedaroglu E, Hellinger FR, Feng L, Kirmani JF, Lopes DK, Jankowitz BT, Frankel MR, Costalat V, Vora NA, Yoo AJ, Malik AM, Furlan AJ, Rubiera M, Aghaebrahim A, Olivot JM, Tekle WG, Shields R, Graves T, Lewis RJ, Smith WS, Liebeskind DS, Saver JL, **Jovin TG**; DAWN Trial Investigators. Thrombectomy 6 to 24 Hours after Stroke with a Mismatch between Deficit and Infarct. *N Engl J Med*. 2018 Jan 4;378(1):11-21.
246. Boers AMM, Jansen IGH, Beenen LFM, Devlin TG, San Roman L, Heo JH, Ribó M, Brown S, Almekhlafi MA, Liebeskind DS, Teitelbaum J, Lingsma HF, van Zwam WH, Cuadras P, du Mesnil de Rochemont R, Beaumont M, Brown MM, Yoo AJ, van Oostenbrugge RJ, Menon BK, Donnan GA, Mas JL, Roos YBWEM, Oppenheim C, van der Lugt A, Dowling RJ, Hill MD, Davalos A, Moulin T, Agrinier N, Demchuk AM, Lopes DK, Aja Rodríguez L, Dippel DWJ, Campbell BCV, Mitchell PJ, Al-Ajlan FS, **Jovin TG**, Madigan J, Albers GW, Soize S, Guillemin F, Reddy VK, Bracard S, Blasco J, Muir KW, Nogueira RG, White PM, Goyal M, Davis SM, Marquering HA, Majoie CBLM. Association of follow-up infarct volume with functional outcome in acute ischemic stroke: a pooled analysis of seven randomized trials. *J Neurointerv Surg*. 2018 Apr 7. pii: neurintsurg-2017-013724. doi: 10.1136/neurintsurg-2017-013724.
  247. Tsai JP, Mlynash M, Christensen S, Kemp S, Kim S, Mishra NK, Federau C, Nogueira RG, **Jovin TG**, Devlin TG, Akhtar N, Yavagal DR, Bammer R, Straka M, Zaharchuk G, Marks MP, Albers GW, Lansberg MG; CRISP Investigators. Time From Imaging to Endovascular Reperfusion Predicts Outcome in Acute Stroke. *Stroke*. 2018 Apr;49(4):952-957. doi: 10.1161/STROKEAHA.117.018858.
  248. **Jovin TG**, Nogueira RG; DAWN Investigators. Thrombectomy 6 to 24 Hours after Stroke. *N Engl J Med*. 2018 Mar 22;378(12):1161-1162.
  249. Jadhav A, Panczykowski D, Jumaa M, Aghaebrahim A, Ranginani M, Nguyen F, Desai SM, Grandhi R, Ducruet A, Gross BA, Jankowitz BT, **Jovin TG**. Angioplasty and stenting for symptomatic extracranial non-tandem internal carotid artery occlusion. *J Neurointerv Surg*. 2018 Apr 29. pii: neurintsurg-2018-013810. doi: 10.1136/neurintsurg-2018-013810. [Epub ahead of print]
  250. Gross BA, Kenmuir CL, Ares WJ, Jadhav AP, **Jovin TG**, Jankowitz BT. Pericallosal aneurysm coiling with a "hubbed" 167 cm 0.013" headway duo via a transradial approach. *J Clin Neurosci*. 2018 Jul;53:273-275.
  251. Wannamaker R, Guinand T, Menon BK, Demchuk A, Goyal M, Frei D, Bharatha A, **Jovin TG**, Shankar J, Krings T, Baxter B, Holmstedt C, Swartz R, Dowlathshahi D, Chan R, Tampieri D, Choe H, Burns P, Gentile N, Rempel J, Shuaib A, Buck B, Bivard A, Hill M, Butcher K. Computed Tomographic Perfusion Predicts Poor Outcomes in a Randomized Trial of Endovascular Therapy. *Stroke*. 2018 Jun;49(6):1426-1433.
  252. Román LS, Menon BK, Blasco J, Hernández-Pérez M, Dávalos A, Majoie CBLM, Campbell BCV, Guillemin F, Lingsma H, Anxionnat R, Epstein J, Saver JL, Marquering H, Wong JH, Lopes D, Reimann G, Desal H, Dippel DWJ, Coutts S, du Mesnil de Rochemont R, Yavagal D, Ferre JC, Roos YBWEM, Liebeskind DS, Lenthall R, Molina C, Al Ajlan FS, Reddy V, Dowlathshahi D, Nader-Antoine S, Oppenheim C, Mitha AP, Davis SM, Weimar C, van Oostenbrugge RJ, Cobo E, Kleinig TJ, Donnan GA, van der Lugt A, Demchuk AM, Berkhemer OA,

- Boers AMM, Ford GA, Muir KW, Brown BS, **Jovin T**, van Zwam WH, Mitchell PJ, Hill MD, White P, Bracard S, Goyal M; HERMES collaborators. Imaging features and safety and efficacy of endovascular stroke treatment: a meta-analysis of individual patient-level data. *Lancet Neurol*. 2018 Oct;17(10):895-904. doi: 10.1016/S1474-4422(18)30242-4. Epub 2018 Sep 18.
253. Liebeskind DS, Bracard S, Guillemin F, Jahan R, **Jovin TG**, Majoie CB, Mitchell PJ, van der Lugt A, Menon BK, San Román L, Campbell BC, Muir KW, Hill MD, Dippel DW, Saver JL, Demchuk AM, Dávalos A, White P, Brown S, Goyal M; HERMES Collaborators. eTICI reperfusion: defining success in endovascular stroke therapy *J Neurointerv Surg*. 2018 Sep 7. pii: neurintsurg-2018-014127. doi: 10.1136/neurintsurg-2018-014127. [Epub ahead of print]
  254. A new era for stroke therapy: Integrating neurovascular protection with optimal reperfusion. Shi L, Rocha M, Leak RK, Zhao J, Bhatia TN, Mu H, Wei Z, Yu F, Weiner SL, Ma F, **Jovin TG**, Chen J. *J Cereb Blood Flow Metab*. 2018 Sep 7:271678X18798162. doi: 10.1177/0271678X18798162. [Epub ahead of print]
  255. Nemoto E, Lin R, Uchino K, Billigen J, Bircher N, Zaidi S, Reddy V, Jumma M, Kuwabara H, Sashin D, Boada F, Chang YF, Vora N, Hammer M, **Jovin T**, Massaro L, Zhang T, Matsumoto K, Yonas H. Comparison of Quantitative and Qualitative Oxygen Extraction Fraction (OEF) in Acute Stroke Patients with Large Vessel Occlusion. *Adv Exp Med Biol*. 2018;1072:45-51. doi: 10.1007/978-3-319-91287-5\_8.
  256. Tonetti DA, Gross BA, Desai SM, Jadhav AP, Jankowitz BT, **Jovin TG**. Final Infarct Volume of <10 cm<sup>3</sup> is a Strong Predictor of Return to Home in Nonagenarians Undergoing Mechanical Thrombectomy. *World Neurosurg*. 2018 Aug 10. pii: S1878-8750(18)31789-3. doi: 10.1016/j.wneu.2018.08.008. [Epub ahead of print]
  257. Desai SM, Rocha M, Starr M, Molyneaux BJ, Kenmuir CL, Gross BA, Jankowitz BT, **Jovin TG**, Jadhav AP. Laterality is an Independent Predictor of Endovascular Thrombectomy in Patients With Low National Institute of Health Stroke Scale. *J Stroke Cerebrovasc Dis*. 2018 Aug 2. pii: S1052-3057(18)30385-9. doi: 10.1016/j.jstrokecerebrovasdis.2018.07.016.
  258. Gross BA, Ares WJ, Ducruet AF, Jadhav AP, **Jovin TG**, Jankowitz BT. *J Neurointerv Surg*. 2018 Aug 4. pii: neurintsurg-2018-014208. doi: 10.1136/neurintsurg-2018-014208. [Epub ahead of print] A clinical comparison of Atlas and LVIS Jr stent-assisted aneurysm coiling.
  259. Ares WJ, Cabrera EA, Desai S, Zussman BM, Kenmuir CL, **Jovin TG**, Jadhav AP, Gross BA, Jankowitz BT. Intravenous Drug Use Is Novel Predictor of Infectious Intracranial Aneurysms in Patients with Infective Endocarditis. *World Neurosurg*. 2018 Oct;118:e813-e817. doi: 10.1016/j.wneu.2018.07.060. Epub 2018 Jul 17.
  260. Gross BA, Jadhav AP, Jankowitz BT, **Jovin TG**. Letter to the Editor. Intracranial stenting in acute stroke. *J Neurosurg*. 2018 Sep 21:1-3. doi: 10.3171/2018.7.JNS181873. [Epub ahead of print]
  261. Desai SM, Rocha M, Molyneaux BJ, Starr M, Kenmuir CL, Gross BA, Jankowitz BT, **Jovin TG**, Jadhav AP. Thrombectomy 24 hours after stroke: beyond DAWN.

- J Neurointerv Surg. 2018 May 17. pii: neurintsurg-2018-013915. doi: 10.1136/neurintsurg-2018-013915. [Epub ahead of print]
262. Desai SM, Haussen DC, Aghaebrahim A, Al-Bayati AR, Santos R, Nogueira RG, **Jovin TG**, Jadhav AP. Thrombectomy 6-24 hours after stroke in trial ineligible patients. J Neurointerv Surg. 2018 May 28. pii: neurintsurg-2018-013923. doi: 10.1136/neurintsurg-2018-013923.
  263. **Jovin TG**. MRI-Guided Intravenous Alteplase for Stroke - Still Stuck in Time. N Engl J Med. 2018 Aug 16;379(7):682-683.
  264. Streib CD, Rangaraju S, Campbell DT, Winger DG, Paolini SL, Zhang AJ, Jankowitz BT, Jadhav AP, **Jovin TG**. Infarct Volume Predicts Hospitalization Costs in Anterior Circulation Large-Vessel Occlusion Stroke. AJNR Am J Neuroradiol. 2018 Dec 27. doi: 10.3174/ajnr.A5917
  265. Desai SM, Rocha M, **Jovin TG**, Jadhav AP. High Variability in Neuronal Loss. Stroke. 2019 Jan;50(1):34-37. doi: 10.1161/STROKEAHA.118.023499
  266. Hoving JW, Marquering HA, Majoie CBLM, Yassi N, Sharma G, Liebeskind DS, van der Lugt A, Roos YB, van Zwam W, van Oostenbrugge RJ, Goyal M, Saver JL, **Jovin TG**, Albers GW, Davalos A, Hill MD, Demchuk AM, Bracard S, Guillemin F, Muir KW, White P, Mitchell PJ, Donnan GA, Davis SM, Campbell BCV. Volumetric and Spatial Accuracy of Computed Tomography Perfusion Estimated Ischemic Core Volume in Patients With Acute Ischemic Stroke. Stroke. 2018 Oct;49(10):2368-2375. doi: 10.1161/STROKEAHA.118.020846.
  267. Vagal A, Aviv R, Sucharew H, Reddy M, Hou Q, Michel P, **Jovin T**, Tomsick T, Wintermark M, Khatri P. Collateral Clock Is More Important Than Time Clock for Tissue Fate. Stroke. 2018 Sep;49(9):2102-2107. doi: 10.1161/STROKEAHA.118.021484
  268. Boers AMM, Jansen IGH, Beenen LFM, Devlin TG, San Roman L, Heo JH, Ribó M, Brown S, Almekhlafi MA, Liebeskind DS, Teitelbaum J, Lingsma HF, van Zwam WH, Cuadras P, du Mesnil de Rochemont R, Beaumont M, Brown MM, Yoo AJ, van Oostenbrugge RJ, Menon BK, Donnan GA, Mas JL, Roos YBWEM, Oppenheim C, van der Lugt A, Dowling RJ, Hill MD, Davalos A, Moulin T, Agrinier N, Demchuk AM, Lopes DK, Aja Rodríguez L, Dippel DWJ, Campbell BCV, Mitchell PJ, Al-Ajlan FS, **Jovin TG**, Madigan J, Albers GW, Soize S, Guillemin F, Reddy VK, Bracard S, Blasco J, Muir KW, Nogueira RG, White PM, Goyal M, Davis SM, Marquering HA, Majoie CBLM. Mediation of the Relationship Between Endovascular Therapy and Functional Outcome by Follow-up Infarct Volume in Patients With Acute Ischemic Stroke. JAMA Neurol. Published online January 7, 2019, doi:10.1001/jamaneurol. 2018.3661 246.
  269. Goyal M, Almekhlafi M, Dippel DW, Campbell BCV, Muir K, Demchuk AM, Bracard S, Davalos A, Guillemin F, **Jovin TG**, Menon BK, Mitchell PJ, Brown S, White P, Majoie CBLM, Saver JL, Hill MD; HERMES Collaborators. Rapid Alteplase Administration Improves Functional Outcomes in Patients With Stroke due to Large Vessel Occlusions. Stroke. 2019 Feb 14. STROKEAHA118021840. doi: 10.1161
  270. Tonetti DA, Desai SM, Casillo S, Zussman BM, Brown MW, Jadhav AP, Jankowitz BT, **Jovin TG**, Gross BA. Large-bore aspiration catheter selection does

- not influence reperfusion or outcome after manual aspiration thrombectomy. *J Neurointerv Surg*. 2019 Feb 7. pii: neurintsurg-2018-014633.
271. Limaye K, Patel A, Dave M, Kenmuir C, Lahoti S, Jadhav AP, Samaniego EA, Ortega-Gutiérrez S, Torner J, Hasan D, Derdeyn CP, **Jovin T**, Adams HP Jr, Leira EC. Secular Increases in Spontaneous Subarachnoid Hemorrhage during Pregnancy: A Nationwide Sample Analysis. *J Stroke Cerebrovasc Dis*. 2019 Jan 31. pii: S1052-3057(19)30034-5. doi: 10.1016/
  272. Tonetti DA, Ferari C, Perez J, Ozpinar A, Jadhav AP, **Jovin TG**, Gross BA, Jankowitz BT. Validation of an extrinsic compression and early ambulation protocol after diagnostic transfemoral cerebral angiography: a 5-year prospective series. *J Neurointerv Surg*. 2019 Jan 23. pii: neurintsurg-2018-014572. doi: 10.1136/neurintsurg-2018-014572.
  273. Bourcier R, Goyal M, Liebeskind DS, Muir KW, Desal H, Siddiqui AH, Dippel DWJ, Majoie CB, van Zwam WH, **Jovin TG**, Levy EI, Mitchell PJ, Berkhemer OA, Davis SM, Derraz I, Donnan GA, Demchuk AM, van Oostenbrugge RJ, Kelly M, Roos YB, Jahan R, van der Lugt A, Sprengers M, Velasco S, Lycklama À Nijeholt GJ, Ben Hassen W, Burns P, Brown S, Chabert E, Krings T, Chloe H, Weimar C, Campbell BCV, Ford GA, Ribo M, White P, Cloud GC, San Roman L, Davalos A, Naggara O, Hill MD, Bracard S; HERMES Trialists Collaboration. Association of Time From Stroke Onset to Groin Puncture With Quality of Reperfusion After Mechanical Thrombectomy: A Meta-analysis of Individual Patient Data From 7 Randomized Clinical Trials. *JAMA Neurol*. 2019 Jan 22. doi: 10.1001/jamaneurol.2018.4510.
  274. Jadhav AP, Zaidat OO, Liebeskind DS, Yavagal DR, Haussen DC, Hellinger FR Jr, Jahan R, Jumaa MA, Szeder V, Nogueira RG, **Jovin TG**. Emergent Management of Tandem Lesions in Acute Ischemic Stroke. *Stroke*. 2019 Feb;50(2):428-433. doi: 10.1161/STROKEAHA.118.021893.
  275. Arthur AS, Mocco J, Linfante I, Fiorella D, Hussain MS, **Jovin TG**, Nogueira R, Schirmer C, Barr JD, Meyers PM, De Leacy R, Albuquerque FC. Stroke patients can't ask for a second opinion: a multi-specialty response to The Joint Commission's recent suspension of individual stroke surgeon training and volume standards. *J Neurointerv Surg*. 2018 Dec;10(12):1127-1129. doi: 10.1136
  276. Aghaebrahim A, Agnoletto GJ, Aguilar-Salinas P, Granja MF, Monteiro A, Siddiqui AH, Levy EI, Shallwani H, Kim SJ, Haussen DC, Nogueira RG, Lopes D, Saied A, **Jovin TG**, Jadhav AP, Limaye K, Turk AS, Spiotta AM, Chaudry MI, Turner RD, Brasiliense LBC, Dumont TM, Cherian J, Kan P, Sauvageau E, Hanel RA. Endovascular Recanalization of Symptomatic Intracranial Arterial Stenosis Despite Aggressive Medical Management. *World Neurosurg*. 2018 Dec 18. pii: S1878-8750(18)32827-4. doi: 10.1016/j.wneu.2018.
  277. Jankowitz BT, Gross BA, Seshadri S, Girdhar G, Jadhav A, **Jovin TG**, Wainwright JM. Hemodynamic differences between Pipeline and coil-adjunctive intracranial stents. *J Neurointerv Surg*. 2019 Feb 27. pii: neurintsurg-2018-014439. doi: 10.1136/neurintsurg-2018-014439. PMID: 30814328
  278. Aghaebrahim A, Agnoletto GJ, Aguilar-Salinas P, Granja MF, Monteiro A, Siddiqui AH, Levy EI, Shallwani H, Kim SJ, Haussen DC, Nogueira RG, Lopes D, Saied A, **Jovin TG**, Jadhav AP, Limaye K, Turk AS, Spiotta AM, Chaudry

- MI, Turner RD, Brasiliense LBC, Dumont TM, Cherian J, Kan P, Sauvageau E, Hanel RA. Endovascular Recanalization of Symptomatic Intracranial Arterial Stenosis Despite Aggressive Medical Management. *World Neurosurg*. 2019 Mar;123:e693-e699. doi: 10.1016/j.wneu.2018.12.008. Epub 2018 Dec 18. PMID: 30576811
279. Goyal M, Almekhlafi M, Dippel DW, Campbell BCV, Muir K, Demchuk AM, Bracard S, Davalos A, Guillemin F, **Jovin TG**, Menon BK, Mitchell PJ, Brown S, White P, Majoie CBLM, Saver JL, Hill MD; HERMES Collaborators. Rapid Alteplase Administration Improves Functional Outcomes in Patients With Stroke due to Large Vessel Occlusions. *Stroke*. 2019 Mar;50(3):645-651. doi: 10.1161/STROKEAHA.118.021840. PMID: 30760169
280. Zussman BM, Tonetti DA, Stone J, Brown M, Desai SM, Gross BA, Jadhav A, **Jovin TG**, Jankowitz BT. Maturing institutional experience with the transradial approach for diagnostic cerebral arteriography: overcoming the learning curve. *J Neurointerv Surg*. 2019 Dec;11(12):1235-1238. doi: 10.1136/neurintsurg-2019-014920. Epub 2019 Apr 27. PMID: 31030189
281. Manners J, Khandker N, Barron A, Aziz Y, Desai SM, Morrow B, Delfyett WT, Martin-Gill C, Shutter L, **Jovin TG**, Jadhav AP. An interdisciplinary approach to in-hospital stroke improves stroke detection and treatment time. *J Neurointerv Surg*. 2019 Apr 27. pii: neurintsurg-2019-014890. doi: 10.1136/neurintsurg-2019-014890. [Epub ahead of print] PMID: 31030187
282. Ball RL, Jiang B, Desai M, Michel P, Eskandari A, **Jovin T**, Wintermark M. A statistical approach to identify optimal inclusion criteria: An application to acute stroke clinical trials. *Contemp Clin Trials Commun*. 2019 Apr 9;14:100355. doi: 10.1016/j.conctc.2019.100355. eCollection 2019 Jun. PMID: 31011658
283. Menon BK, Hill MD, Davalos A, Roos YBWEM, Campbell BCV, Dippel DWJ, Guillemin F, Saver JL, van der Lugt A, Demchuk AM, Muir K, Brown S, **Jovin T**, Mitchell P, White P, Bracard S, Goyal M. Efficacy of endovascular thrombectomy in patients with M2 segment middle cerebral artery occlusions: meta-analysis of data from the HERMES Collaboration. *J Neurointerv Surg*. 2019 Apr 11. pii: neurintsurg-2018-014678. doi: 10.1136/neurintsurg-2018-014678. [Epub ahead of print] PMID: 30975736
284. Tonetti DA, Desai SM, Casillo S, Zussman BM, Jadhav A, Jankowitz BT, **Jovin TG**, Gross BA. Stentriever salvage after failed manual aspiration thrombectomy. *J Neurointerv Surg*. 2019 Apr 10. pii: neurintsurg-2019-014828. doi: 10.1136/neurintsurg-2019-014828. [Epub ahead of print] PMID: 30971424
285. Liebeskind DS, Bracard S, Guillemin F, Jahan R, **Jovin TG**, Majoie CB, Mitchell PJ, van der Lugt A, Menon BK, San Román L, Campbell BC, Muir KW, Hill MD, Dippel DW, Saver JL, Demchuk AM, Dávalos A, White P, Brown S, Goyal M; HERMES Collaborators. eTICI reperfusion: defining success in endovascular stroke therapy. *J Neurointerv Surg*. 2019 May;11(5):433-438. doi: 10.1136/neurintsurg-2018-014127. Epub 2018 Sep 7. PMID: 30194109
286. Gross BA, Desai SM, Walker G, Jankowitz BT, Jadhav A, **Jovin TG**. Balloon-mounted stents for acute intracranial large vessel occlusion secondary to presumed atherosclerotic disease: evolution in an era of supple intermediate

- catheters. *J Neurointerv Surg*. 2019 May 15. pii: neurintsurg-2019-014877. doi: 10.1136/neurintsurg-2019-014877. [Epub ahead of print] PMID:31092560
287. Gross BA, Jadhav AP, **Jovin TG**, Jankowitz BT. Clinical Comparison of New Generation 0.071 and 0.072 Inch Aspiration Catheters. *World Neurosurg*. World Neurosurg. 2019 Oct;130:e463-e466. doi: 10.1016/j.wneu.2019.06.120. Epub 2019 Jun 25. PMID:31247355
288. Tonetti DA, Desai SM, Casillo S, Zussman BM, Brown MW, Jadhav AP, Jankowitz BT, **Jovin TG**, Gross BA. Large-bore aspiration catheter selection does not influence reperfusion or outcome after manual aspiration thrombectomy. *J Neurointerv Surg*. 2019 Jul;11(7):637-640. doi: 10.1136/neurintsurg-2018-014633. Epub 2019 Feb 7. PMID:30733300
289. Albers GW, Molina CA, Selim MH, **Jovin TG**. Advanced Brain Imaging in Late-Arriving Drip and Ship Patients With Known Large Vessel Occlusion. *Stroke*. 2019 Jul;50(7):1940-1943. doi: 10.1161/STROKEAHA.118.020574. Epub 2019 Jun 20. No abstract available. PMID:31216963
290. Shoirah H, Wechsler LR, **Jovin TG**, Jadhav AP. Acute Stroke Trial Enrollment through a Telemedicine Network: A 12-Year Experience. *J Stroke Cerebrovasc Dis*. 2019 Jul;28(7):1926-1929. doi: 10.1016/j.jstrokecerebrovasdis.2019.03.046. Epub 2019 Apr 20. PMID:31010762
291. Desai SM, Mehta A, Morrison AA, Gross BA, Jankowitz BT, **Jovin TG**, Jadhav AP. Endovascular Thrombectomy, Platelet Count, and Intracranial Hemorrhage. *World Neurosurg*. 2019 Jul;127:e1039-e1043. doi: 10.1016/j.wneu.2019.04.036. Epub 2019 Apr 10. PMID:30980980
292. Shoirah H, Shallwani H, Siddiqui AH, Levy EI, Kenmuir CL, **Jovin TG**, Levitt MR, Kim LJ, Griaude J, Pandey AS, Gemmete JJ, Abruzzo T, Arthur AS, Elijevich L, Hoit D, Cheema A, Aghaebrahim A, Sauvageau E, Hanel R, Ringer AJ, Nascimento FA, Kan P, Mocco J. Endovascular thrombectomy in pediatric patients with large vessel occlusion. *J Neurointerv Surg*. 2019 Jul;11(7):729-732. doi: 10.1136/neurintsurg-2018-014320. Epub 2019 Mar 6. PMID:30842301
293. Lal BK, Meschia JF, Roubin GS, Jankowitz B, Heck D, **Jovin T**, White CJ, Rosenfield K, Katzen B, Dabus G, Gray W, Matsumura J, Hopkins LN, Luke S, Sharma J, Voeks JH, Howard G, Brott TG; CREST-2 Investigators. Factors Influencing credentialing of interventionists in the CREST-2 trial. *J Vasc Surg*. 2019 Jul 25. pii: S0741-5214(19)31449-1. doi: 10.1016/j.jvs.2019.05.035. PMID: 31353274
294. Aghaebrahim A, Jadhav AP, Hanel R, Sauvageau E, Granja MF, Zhang Y, Haussen DC, Budzik RF, Bonafe A, Bhuva P, Ribo M, Cognard C, Sila C, Yavagal D, Hassan AE, Smith WS, Saver J, Liebeskind DS, Nogueira RG, **Jovin TG**; DAWN Investigators. Outcome in Direct Versus Transfer Patients in the DAWN Controlled Trial. *Stroke*. 2019 Aug;50(8):2163-2167 PMID:31303153
295. Abilleira S, Pérez de la Ossa N, Jiménez X, Cardona P, Cocho D, Purroy F, Serena J, Román LS, Urrea X, Vilaró M, Cortés J, González JA, Chamorro Á, Gallofré M, **Jovin T**, Molina C, Cobo E, Dávalos A, Ribó M. Transfer to the Local Stroke Center versus Direct Transfer to Endovascular Center of Acute Stroke Patients with Suspected Large Vessel Occlusion in the Catalan Territory

- (RACECAT): Study protocol of a cluster randomized within a cohort trial. *Int J Stroke*. 2019 May 29;17474390319852176 PMID:31142219
296. Almekhlafi MA, Hill MD, Roos YM, Campbell BCV, Muir KW, Demchuk AM, Bracard S, Gomis M, Guillemin F, **Jovin TG**, Menon BK, Mitchell P, White P, van der Lugt A, Saver J, Brown S, Goyal M. Stroke Laterality did not modify outcomes in the HERMES meta-analysis of individual patient data of 7 trials. *Stroke*. 2019 Aug;50(8):2118-2124. PMID 31272328
  297. Bhuva P, Yoo AJ, Jadhav AP, **Jovin TG**, Haussen DC, Bonafe A, Budzik RJ, Yavagal DR, Hanel RA, Hassan AE, Ribo M, Cognard C, Sila CA, Morgan PM, Zhang Y, Shields R, Smith W, Saver JL, Liebeskind DS, Nogueira RG; DAWN Trial Investigators. Noncontrast Computed Tomography Alberta Stroke Program Early CT Score May Modify Intra-Arterial Treatment Effect in DAWN. *Stroke*. 2019 Sep;50(9):2404-2412. doi: 10.1161/STROKEAHA.118.024583. Epub 2019 Jul 26. PMID: 31345135
  298. Rocha M, Desai SM, Jadhav AP, **Jovin TG**. Prevalence and Temporal Distribution of Fast and Slow Progressors of Infarct Growth in Large Vessel Occlusion Stroke. Prevalence and Temporal Distribution of Fast and Slow Progressors of Infarct Growth in Large Vessel Occlusion Stroke. PMID: 31203787
  299. Desai SM, Starr M, Molyneaux BJ, Rocha M, **Jovin TG**, Jadhav AP. Acute Ischemic Stroke with Vessel Occlusion-Prevalence and Thrombectomy Eligibility at a Comprehensive Stroke Center. *J Stroke Cerebrovasc Dis*. 2019 Nov;28(11):104315. doi: 10.1016/j.jstrokecerebrovasdis.2019.104315. Epub 2019 Aug 10. PMID: 31409537
  300. Chalos V, de Ridder IR, Lingsma HF, Brown S, van Oostenbrugge RJ, Goyal M, Campbell BCV, Muir KW, Guillemin F, Bracard S, White P, Dávalos A, **Jovin TG**, Hill MD, Mitchell PJ, Demchuk AM, Saver JL, van Zwam WH, Dippel DWJ; HERMES Collaborators. Does Sex Modify the Effect of Endovascular Treatment for Ischemic Stroke? *Stroke*. 2019 Sep;50(9):2413-2419. doi: 10.1161/STROKEAHA.118.023743. Epub 2019 Aug 15. PMID: 31412753
  301. Jankowitz BT, Gross BA, Mintz E, Jalgaonkar U, Marchesiello D, Girdhar G, Jadhav AP, **Jovin TG**. Safety and Efficacy Evaluation of Aspiration Thrombectomy With Large Bore Catheters in a Porcine Model. *World Neurosurg*. 2019 Dec;132:e409-e417. doi: 10.1016/j.wneu.2019.08.131. Epub 2019 Aug 28. PMID: 31470150
  302. Schonewille WJ, Liu X, Nogueira RG, Ji X, **Jovin TG**. Response to: Basilar artery occlusion and unwarranted clinical trials. *Interv Neuroradiol*. 2019 Sep 3;1591019919872402. doi: 10.1177/1591019919872402. [Epub ahead of print] No abstract available. PMID: 31480889
  303. Zussman BM, Tonetti DA, Stone J, Brown M, Desai SM, Gross BA, Jadhav A, **Jovin TG**, Jankowitz BT. A prospective study of the transradial approach for diagnostic cerebral arteriography. *J. Neurointerv Surg*. 2019 Oct;11(10):1045-1049. doi: 10.1136/neurintsurg-2018-014686. Epub 2019 Mar 6. PMID: 30842303
  304. Qiu W, Kuang H, Lee TY, Boers AM, Brown S, Muir K, Majoie CBLM, Dippel DWJ, White P, Guillemin F, Mitchell PJ, Dávalos A, Bracard S, Campbell B,

- Saver JL, Jovin TG, Hill MD, Demchuk AM, Goyal M, Menon BK. Confirmatory Study of Time-Dependent Computed Tomographic Perfusion Thresholds for Use in Acute Ischemic Stroke. *Stroke*. 2019 Nov;50(11):3269-3273. doi: 10.1161/STROKEAHA.119.026281. Epub 2019 Sep 4. PMID: 31480968
305. Al-Hader R, Al-Robaidi K, **Jovin T**, Jadhav A, Wechsler LR, Thirumala PD. The Incidence of Perioperative Stroke: Estimate Using State and National Databases and Systematic Review. *J Stroke*. 2019 Sep;21(3):290-301. doi: 10.5853/jos.2019.00304. Epub 2019 Sep 30. PMID: 31590473
  306. Thamm T, Guo J, Rosenberg J, Liang T, Marks MP, Christensen S, Do HM, Kemp SM, Adair E, Eyngorn I, Mlynash M, **Jovin TG**, Keogh BP, Chen HJ, Lansberg MG, Albers GW, Zaharchuk G. Contralateral Hemispheric Cerebral Blood Flow Measured With Arterial Spin Labeling Can Predict Outcome in Acute Stroke. *Stroke*. 2019 Dec;50(12):3408-3415. doi: 10.1161/STROKEAHA.119.026499. Epub 2019 Oct 17. PMID: 31619150
  307. Tonetti DA, Desai SM, Casillo S, Stone J, Brown M, Jankowitz B, **Jovin TG**, Gross BA, Jadhav A. Successful reperfusion, rather than number of passes, predicts clinical outcome after mechanical thrombectomy. *J Neurointerv Surg*. 2019 Nov 1. pii: neurintsurg-2019-015330. doi: 10.1136/neurintsurg-2019-015330. [Epub ahead of print] PMID: 31676689
  308. Tekle WG, Hassan AE, Jadhav AP, Haussen DC, Budzik RF, Bonafe A, Bhuva P, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila CA, Smith WS, Saver JL, Liebeskind DS, Shields R, Nogueira RG, **Jovin TG**; DAWN Trial Investigators. Impact of Periprocedural and Technical Factors and Patient Characteristics on Revascularization and Outcome in DAWN Trial. *Stroke*. 2019 Nov 20;STROKEAHA119026437. doi: 10.1161/STROKEAHA.119.026437. [Epub ahead of print] PMID: 31744425
  309. Jadhav AP, Aghaebrahim A, Jankowitz BT, Haussen DC, Budzik RF, Bonafe A, Bhuva P, Yavagal DR, Hanel RA, Hassan AE, Ribo M, Cognard C, Sila CA, Zhang Y, Smith WS, Saver JL, Liebeskind DS, Nogueira RG, **Jovin TG**. Benefit of Endovascular Thrombectomy by Mode of Onset: Secondary Analysis of the DAWN Trial. *Stroke*. 2019 Nov;50(11):3141-3146. doi: 10.1161/STROKEAHA.119.025795. Epub 2019 Oct 1 PMID: 31570085
  310. Atchaneeyasakul K, Malik AM, Yavagal DR, Haussen DC, Jadhav AP, Bouslama M, Kenmuir CL, Desai S, Grossberg JA, Chaturvedi S, **Jovin TG**, Nogueira RG. Thrombectomy Outcomes in Acute Ischemic Stroke due to Middle Cerebral Artery M2 Occlusion with Stent Retriever versus Aspiration: A Multicenter Experience. *Interv Neurol*. 2020 Jan;8(2-6):180-186. doi: 10.1159/000500198. Epub 2019 Jun 18. PMID: 32508900
  311. Desai SM, Tonetti DA, Morrison AA, Gross BA, Jankowitz BT, **Jovin TG**, Jadhav AP. Relationship between reperfusion and intracranial hemorrhage after thrombectomy. *J Neurointerv Surg*. 2019 Oct 24. pii: neurintsurg-2019-015337. doi: 10.1136/neurintsurg-2019-015337. [Epub ahead of print] PMID: 31649204
  312. Limaye K, Van de Walle Jones A, Shaban A, Desai S, Al Kasab S, Almallouhi E, Holmstedt CA, Ortega-Gutierrez S, Haussen DC, Nogueira R, Mont'Alverne F, Raggiotto C, Rebello LC, **Jovin TG**, Hasan D, Jadhav A. Endovascular management of acute large vessel occlusion stroke in pregnancy is safe and

- feasible. *J Neurointerv Surg*. 2019 Dec 4. pii: neurintsurg-2019-015578. doi: 10.1136/neurintsurg-2019-015578. [Epub ahead of print] PMID: 31801850
313. Renú A, Blasco J, Millán M, Martí-Fàbregas J, Cardona P, Oleaga L, Macho J, Molina C, Roquer J, Amaro S, Dávalos A, Zarco F, Laredo C, Tomasello A, Guimaraens L, Barranco R, Castaño C, Vivas E, Ramos A, López-Rueda A, Urra X, Muchada M, Cuadrado-Godía E, Camps-Renom P, Román LS, Ríos J, Leira EC, **Jovin TG**, Torres F, Chamorro Á; CHOICE Investigators. The Chemical Optimization of Cerebral Embolectomy trial: Study protocol. *Int J Stroke*. 2019 Dec 18;1747493019895656. doi: 10.1177/1747493019895656. [Epub ahead of print] PMID: 31852410
  314. Lal BK, Roubin GS, Rosenfield K, Heck D, Jones M, Jankowitz B, **Jovin TG**, Chaturvedi S, Dabus G, White CJ, Gray W, Matsumura J, Katzen BT, Hopkins LN, Mayorga-Carlin M, Sorkin JD, Howard G, Meschia JF, Brott TG. Quality Assurance for Carotid Stenting in the CREST-2 Registry. *J Am Coll Cardiol*. 2019 Dec 24;74(25):3071-3079. doi: 10.1016/j.jacc.2019.10.032. PMID: 31856962
  315. Sales Barros R, Tolhuisen ML, Boers AM, Jansen I, Ponomareva E, Dippel DWJ, van der Lugt A, van Oostenbrugge RJ, van Zwam WH, Berkhemer OA, Goyal M, Demchuk AM, Menon BK, Mitchell P, Hill MD, **Jovin TG**, Dávalos A, Campbell BCV, Saver JL, Roos YBWEM, Muir KW, White P, Bracard S, Guillemin F, Olabarriaga SD, Majoie CBLM, Marquering HA. Automatic segmentation of cerebral infarcts in follow-up computed tomography images with convolutional neural networks. *J Neurointerv Surg*. 2019 Dec 23. pii: neurintsurg-2019-015471. doi: 10.1136/neurintsurg-2019-015471. [Epub ahead of print] PMID: 31871069
  316. Sanchez S, Cortiñas I, Villanova H, Rios A, Galve I, Andersson T, Nogueira R, **Jovin TG**, Ribo M. ANCD thrombectomy device: in vitro evaluation. *J Neurointerv Surg*. 2020 Jan;12(1):77-81. doi: 10.1136/neurintsurg-2019-014856. Epub 2019 Jun 13. PMID: 31197024
  317. Kunz WG, Almekhlafi MA, Menon BK, Saver JL, Hunink MG, Dippel DWJ, Majoie CBLM, Liebeskind DS, **Jovin TG**, Dávalos A, Bracard S, Guillemin F, Campbell BCV, Mitchell PJ, White P, Muir KW, Brown S, Demchuk AM, Hill MD, Goyal M; HERMES Collaborators. Public Health and Cost Benefits of Successful Reperfusion After Thrombectomy for Stroke. *Stroke*. 2020 Mar;51(3):899-907. doi: 10.1161/STROKEAHA.119.027874. Epub 2020 Jan 22. PMID: 31964289
  318. Nguyen TN, Abdalkader M, **Jovin TG**, Nogueira RG, Jadhav AP, Haussen DC, Hassan AE, Novakovic R, Sheth SA, Ortega-Gutierrez S, Panagos PD, Cordina SM, Linfante I, Mansour OY, Malik AM, Narayanan S, Masoud HE, Chou SH, Khatri R, Janardhan V, Yavagal DR, Zaidat OO, Greer DM, Liebeskind DS. Mechanical Thrombectomy in the Era of the COVID-19 Pandemic: Emergency Preparedness for Neuroscience Teams: A Guidance Statement From the Society of Vascular and Interventional Neurology. *Stroke*. 2020 Apr 29;STROKEAHA120030100. doi: 10.1161/STROKEAHA.120.030100. Online ahead of print. PMID: 32347790
  319. Jankowitz BT, Tonetti DA, Kenmuir C, Rao R, Ares WJ, Zussman B, Brown MW, Stone JG, Gardner PA, Friedlander RM, Gross BA, Jadhav AP, **Jovin TG**.

- Urgent Treatment for Symptomatic Carotid Stenosis: The Pittsburgh Revascularization and Treatment Emergently After Stroke (PIRATES) Protocol. *Neurosurgery*. 2020 Apr 15;nyaa096. doi: 10.1093/neuros/nyaa096. Online ahead of print. PMID: 32294211
320. Jadhav AP, Mokin M, Ortega-Gutierrez S, Haussen D, Liebeskind D, Nogueira R, **Jovin T**, Linfante I. An Appraisal of the 2018 Guidelines for the Early Management of Patients with Acute Ischemic Stroke. *Interv Neurol*. 2020 Feb;8(1):55-59. doi: 10.1159/000495041. Epub 2018 Dec 4. PMID: 32231695
  321. Desai SM, Tonetti DA, Molyneaux BJ, Atchaneeyasakul K, Rocha M, **Jovin TG**, Jadhav AP. Interaction between time, ASPECTS, and clinical mismatch. *J Neurointerv Surg*. 2020 Apr 3;neurintsurg-2020-015921. doi: 10.1136/neurintsurg-2020-015921. Online ahead of print. PMID: 32245842
  322. Sultan I, Bianco V, Kilic A, **Jovin T**, Jadhav A, Jankowitz B, Aranda-Michel E, D'angelo MP, Navid F, Wang Y, Thoma F, Gleason TG. Predictors and Outcomes of Ischemic Stroke After Cardiac Surgery. *Ann Thorac Surg*. 2020 Mar 19:S0003-4975(20)30395-7. doi: 10.1016/j.athoracsur.2020.02.025. Online ahead of print. PMID: 32199830
  323. Tonetti DA, Desai SM, Hudson J, Gross BA, Jha RM, Molyneaux BJ, Jankowitz BT, **Jovin TG**, Jadhav AP. Large Infarct Volume Post-Thrombectomy: Characteristics, Outcomes and Predictors. *World Neurosurg*. 2020 Apr 27:S1878-8750(20)30846-9. doi: 10.1016/j.wneu.2020.04.139. Online ahead of print. PMID: 32353539
  324. Siegler JE, Heslin ME, Thau L, Smith A, **Jovin TG**. Falling stroke rates during COVID-19 pandemic at a Comprehensive Stroke Center: Cover title: Falling stroke rates during COVID-19. *J Stroke Cerebrovasc Dis*. 2020 May 14:104953. doi: 10.1016/j.jstrokecerebrovasdis.2020.104953. Online ahead of print. PMID: 32410808
  325. Gross BA, Jadhav AP, Jankowitz BT, **Jovin TG**. Recanalization of Tandem Vertebrobasilar Occlusions with Contralateral Vertebral Occlusion or Hypoplasia via either Direct Passage or the SHERPA Technique. *Interv Neurol*. 2020 Feb;8(1):13-19. doi: 10.1159/000493198. Epub 2018 Sep 27. PMID: 32231691
  326. Stone JG, Zussman BM, Tonetti DA, Brown M, Desai SM, Gross BA, Jadhav A, **Jovin TG**, Jankowitz B. Transradial versus transfemoral approaches for diagnostic cerebral angiography: a prospective, single-center, non-inferiority comparative effectiveness study. *J Neurointerv Surg*. 2020 Jan 22;neurintsurg-2019-015642. doi: 10.1136/neurintsurg-2019-015642. Online ahead of print. PMID: 31974282
  327. Rao RR, Desai SM, Tonetti DA, Manners J, Gross BA, Jankowitz BT, **Jovin TG**, Jadhav AP. Thrombectomy after in-house stroke in the transfer population *J Stroke Cerebrovasc Dis*. 2020 Sep;29(9):105049. doi: 10.1016/j.jstrokecerebrovasdis.2020.105049. Epub 2020 Jun 23. PMID 32807457
  328. D A Tonetti, S M Desai, A Morrison, B A Gross, **T G Jovin**, B T Jankowitz, A P Jadhav. Emergent Premedication for Contrast Allergy Prior to Endovascular Treatment of Acute Ischemic Stroke *AJNR Am J Neuroradiol*. 2020 Aug 6. doi: 10.3174/ajnr.A6720. Online ahead of print. PMID: 32763903

329. Kakadia B , Ahmed J, Siegal T, **Jovin TG**, Thon JM. Mild encephalopathy with reversible splenium lesion (MERS) in a patient with COVID-19. *J Clin Neurosci*. 2020 Sep;79:272-274. doi: 10.1016/j.jocn.2020.07.009. Epub 2020 Jul 7. PMID: 33070911
330. Siegler JE, Cardona P, Arenillas JF, Talavera B, Guillen AN, Chavarría-Miranda A, de Lera M, Khandelwal P, Bach I, Patel P, Singla A, Requena M, Ribo M, Jillella DV, Rangaraju S, Nogueira RG, Haussen DC, Vazquez AR, Urrea X, Chamorro Á, Román LS, Thon JM, Then R, Sanborn E, de la Ossa NP, Millán M, Ruiz IN, Mansour OY, Megahed M, Tiu C, Terecoasa EO, Radu RA, Nguyen TN, Curiale G, Kaliev A, Czap AL, Sebaugh J, Zha AM, Liebeskind DS, Ortega-Gutierrez S, Farooqui M, Hassan AE, Preston L, Patterson MS, Bushnaq S, Zaidat O, **Jovin TG**. Cerebrovascular events and outcomes in hospitalized patients 32568654 with COVID-19: The SVIN COVID-19 Multinational Registry. *Int J Stroke*. 2020 Sep 30;1747493020959216. doi: 10.1177/1747493020959216. Online ahead of print. PID: 32852257
331. Desai SM, Tonetti DA, Morrison AA, Molyneaux BJ, Starr M, Rocha M, Gross BA, Jankowitz B, **Jovin TG**, Jadhav AP. Delayed functional independence after thrombectomy: temporal characteristics and predictors. *J Neurointerv Surg*. 2020 Sep;12(9):837-841. doi: 10.1136/neurintsurg-2020-016111. Epub 2020 Jun 2. PMID: 32487769
332. Nguyen TN, Jadhav AP, Dasenbrock HH, Nogueira RG, Abdalkader M, Ma A, Cervantes-Arslanian AM, Greer DM, Daneshmand A, Yavagal DR, **Jovin TG**, Zaidat OO, Chou SH. Subarachnoid hemorrhage guidance in the era of the COVID-19 pandemic - An opinion to mitigate exposure and conserve personal protective equipment *J Stroke Cerebrovasc Dis*. 2020 Sep;29(9):105010. doi: 10.1016/j.jstrokecerebrovasdis.2020.105010. Epub 2020 Jun 5. PMID: 32807425
333. H, Gerber J, Puetz V, Raza SA, Haussen DC, Nogueira RG, Strbian D, **Jovin TG**, Lindsberg PJ. Predicting outcomes after acute reperfusion therapy for basilar artery occlusion *Eur J Neurol*. 2020 Nov;27(11):2176-2184. doi: 10.1111/ene.14406. Epub 2020 Jul 28. PMID: 32558040
334. Nguyen TN, Nogueira RG, **Jovin TG**. Response by Nguyen et al to Letter Regarding Article, "Mechanical Thrombectomy in the Era of the COVID-19 Pandemic: Emergency Preparedness for Neuroscience Teams: A Guidance Statement From the Society of Vascular and Interventional Neurology" *Stroke*. 2020 Aug;51(8):e172-e173 doi: 10.1161/STROKEAHA.120.030629. Epub 2020 Jun 18. PMID: 32716827
335. Tonetti DA, Desai SM, Nayar G, Kenmuir CL, Delfyett WT, Gross BA, Jankowitz BT, Jadhav AP, **Jovin TG**. Conventional Angiography in the Assessment of Recently Symptomatic Patients with Ipsilateral Carotid Stenosis *J Stroke Cerebrovasc Dis*. 2021 Feb;30(2):105487. doi: 10.1016/j.jstrokecerebrovasdis.2020.105487. Epub 2020 Nov 27. PMID: 33249340
336. Kunz WG, Hunink MG, Almekhlafi MA, Menon BK, Saver JL, Dippel DWJ, Majoie CBLM, **Jovin TG**, Davalos A, Bracard S, Guillemin F, Campbell BCV, Mitchell PJ, White P, Muir KW, Brown S, Demchuk AM, Hill MD, Goyal M; HERMES Collaborators. Public health and cost consequences of time delays to

- thrombectomy for acute ischemic stroke *Neurology*. 2020 Nov 3;95(18):e2465-e2475. doi: 10.1212/WNL.0000000000010867. Epub 2020 Sep 17. PMID: 32943483
337. **Jovin TG**, Desai SM, Aghaebrahim A, Ducruet AF, Giurgiutiu DV, Gross BA, Hammer M, Jankowitz BT, Jumaa MA, Kenmuir C, Linares G, Reddy V, Rocha M, Starr M, Totoraitis V, Wechsler L, Zaidi S, Jadhav AP. Neurothrombectomy for Acute Ischemic Stroke Across Clinical Trial Design and Technique: A Single Center Pooled Analysis *Front Neurol* 2020 Sep 24;11:1047. doi: 10.3389/fneur.2020.01047. eCollection 2020. PMID: 33071935
  338. Smaal JA, de Ridder IR, Heshmatollah A, van Zwam WH, Dippel D, Majoie CB, Brown S, Goyal M, Campbell B, Muir KW, Demchuck AM, Davalos A, **Jovin TG**, Mitchell PJ, White P, Saver JL, Hill MD, Roos YB, van der Lugt A, van Oostenbrugge RJ; HERMES collaboration. Effect of atrial fibrillation on endovascular thrombectomy for acute ischemic stroke. A meta-analysis of individual patient data from six randomised trials: Results from the HERMES collaboration *Eur Stroke J*. 2020 Sep;5(3):245-251. doi: 10.1177/2396987320923447. Epub 2020 May 13. PMID: 33072878
  339. Ospel JM, Kappelhof M, Kashani N, Menon BK, Campbell BCV, San Roman L, Demchuk AM, Dippel DWJ, Saver JL, **Jovin TG**, Mitchell P, Bracad S, Muir K, White P, Guillemin F, Majoie CBLM, Hill MD, Brown S, Goyal M; HERMES collaborators Effect of age and baseline ASPECTS on outcomes in large-vessel occlusion stroke: results from the HERMES collaboration *J Neurointerv Surg* 2020 Sep 14;neurintsurg-2020-016621. doi: 10.1136/neurintsurg-2020-016621. Online ahead of print. PMID: 32929047
  340. Gross BA, Hudson JS, Tonetti DA, Desai SM, Lang MJ, Jadhav AP, Jankowitz BT, **Jovin TG** Bigger is Still Better: A Step Forward in Reperfusion With React 71 *Neurosurgery*. 2020 Dec 28;nyaa498. doi: 10.1093/neuros/nyaa498. Online ahead of print. PMID: 33370840
  341. Tomasello A, Hernandez D, Piñana C, Requena M, Liebeskind DS, Nogueira RG, **Jovin T**, Andersson T, Cognard C, Siddiqui A, Ribo M. Mechanical thrombectomy with a novel device: initial clinical experience with the ANA thrombectomy device *J Neuroradiol*. 2020 Dec 16;S0150-9861(20)30285-6. doi: 10.1016/j.neurad.2020.11.003. Online ahead of print. PMID: 33340641
  342. Shah K, Brown M, Desai SM, **Jovin TG**, Jadhav AP, Gross BA, Jankowitz BT. Capitalated pricing model for stroke thrombectomies: a single center experience across three companies *J Neurointerv Surg*. 2020 Dec;12(12):1157-1160. doi: 10.1136/neurintsurg-2020-016160. Epub 2020 Jul 16. PMID: 32675384
  343. Siegler JE, Zha AM, Czap AL, Ortega-Gutierrez S, Farooqui M, Liebeskind DS, Desai SM, Hassan AE, Starosciak AK, Linfante I, Rai V, Thon JM, Then R, Heslin ME, Thau L, Khandelwal P, Mohammaden MH, Haussen DC, Nogueira RG, Jillella DV, Nahab F, Kaliev A, Nguyen TN, Zaidat O, **Jovin TG**, Jhadav AP. Influence of the COVID-19 Pandemic on Treatment Times for Acute Ischemic Stroke: The Society of Vascular and Interventional Neurology Multicenter Collaboration. *Stroke* 2021 Jan;52(1):40-47. doi: 10.1161/STROKEAHA.120.032789. Epub 2020 Nov 30. PMID: 33250041

344. Ortega-Gutierrez S, Farooqui M, Zha A, Czap A, Sebaugh J, Desai S, Jadhav A, Vora N, Rai V, **Jovin TG**, Thon JM, Heslin M, Thau L, Zevallos C, Quispe-Orozco D, Jillella DV, Nahab F, Mohammaden MH, Nogueira RG, Haussen DC, Nguyen TN, Romero JR, Aparicio HJ, Osman M, Haq IU, Liebeskind D, Hassan AE, Zaidat O, Siegler JE; SVIN COVID-19 Multinational Registry and Task Force. Decline in mild stroke presentations and intravenous thrombolysis during the COVID-19 pandemic: The Society of Vascular and Interventional Neurology Multicenter Collaboration Clin Neurol Neurosurg. 2020 Dec 15;201:106436. doi: 10.1016/j.clineuro.2020.106436. Online ahead of print. PMID: 33383463
345. Kuang H, Qiu W, Boers AM, Brown S, Muir K, Majoie CBLM, Dippel DWJ, White P, Epstein J, Mitchell PJ, Dávalos A, Bracard S, Campbell B, Saver JL, **Jovin TG**, Rubiera M, Khaw AV, Shankar JJ, Fainardi E, Hill MD, Demchuk AM, Goyal M, Menon BK. Computed Tomography Perfusion-Based Machine Learning Model Better Predicts Follow-Up Infarction in Patients With Acute Ischemic Stroke 2021 Jan;52(1):223-231. doi: 10.1161/STROKEAHA.120.030092. Epub 2020 Dec 7. PMID: 33280549
346. Desai SM, **Jovin TG**, Jadhav AP. Time After Time: Fast and Slow Recovery After Stroke. World Neurosurg. 2021 Jan;145:508-509. doi: 10.1016/j.wneu.2020.10.052 PMID: 33348491
347. Nogueira RG, Haussen DC, Liebeskind D, **Jovin TG**, Gupta R, Jadhav A, Budzik RF, Baxter B, Krajina A, Bonafe A, Malek A, Narata AP, Shields R, Zhang Y, Morgan P, Bartolini B, English J, Frankel MR, Veznedaroglu E; Trevo Registry and DAWN Trial Investigators. Stroke Imaging Selection Modality and Endovascular Therapy Outcomes in the Early and Extended Time Windows Stroke. 2021 Jan 12;STROKEAHA120031685. doi: 10.1161/STROKEAHA.120.031685. Online ahead of print. PMID: 33430634
348. Fernandez-Sanchez D, Garcia-Sabido D, **Jovin TG**, Villanova H, Andersson T, Nogueira RG, Cognard C, Ribo M, Siddiqui AH, Galve I, Arad O, Salmon F. Suction force rather than aspiration flow correlates with recanalization in hard clots: an in vitro study model. J Neurointerv Surg. 2021 Jan 29;neurintsurg-2020-017242. doi: 10.1136/neurintsurg-2020-017242. Epub ahead of print. PMID: 33514612.
349. Czap AL, Zha AM, Sebaugh J, Hassan AE, Shulman JG, Abdalkader M, Nguyen TN, Linfante I, Starosciak AK, Ortega-Gutierrez S, Farooqui M, Quispe-Orozco D, Vora NA, Rai V, Nogueira PG, Haussen DC, Jillella DV, Rana A, Yu S, Thon JM, Zaidat OO, Khandelwal P, Bach I, Sheth SA, Jadhav AP, Desai SM, **Jovin TG**, Liebeskind DS, Siegler JE. Endovascular thrombectomy time metrics in the era of COVID-19: observations from the Society of Vascular and Interventional Neurology Multicenter Collaboration. Journal of NeuroInterventional Surgery Published Online First: 08 February 2021. doi: 10.1136/neurintsurg-2020-017205. PMID: 33558439
350. Liang CW, Das S, Ortega-Gutierrez S, Liebeskind DS, Grotta JC, **Jovin TG**, Nguyen TN, Nogueira RG, Masoud H, Eljovich L, Zaidat OO, Hassan AE, Linfante I, Fifi JT, Sheth SA. Education Research: Challenges Faced by Neurology Trainees in a Neuro-Intervention Career Track. Neurology. 2021 Feb

- 12:10.1212/WNL.00000000000011629. doi: 10.1212/WNL.00000000000011629. Epub ahead of print. PMID: 33579757.
351. Cerebral Venous Sinus Thrombosis in COVID-19 Patients: A Multicenter Study and Review of Literature Mohamad Abdalkader, Shamsh P. Shaikh James E. Siegler, Anna M. Cervantes-Arslanian, Cristina Tiu, Razvan Alexandru Radu, Vlad Eugen Tiu, Dinesh V. Jillella, Ossama Yassin Mansour, Víctor Vera Angel Chamorro, Jordi Blasco, Antonio Lopez, Mudassir Farooqui, Lauren Thau, Ainsley Smith, Santiago Ortega Gutierrez Thanh N. Nguyen, and **Tudor G. Jovin**. Journal of Stroke and Cerebrovascular Diseases, Vol. 30, No. 6 (June), 2021: 105733.
  352. Nogueira RG, Davies JM, Gupta R, Hassan AE, Devlin T, Haussen DC, Mohammaden MH, Kellner CP, Arthur A, Eljovich L, Owada K, Begun D, Narayan M, Mordenfeld N, Tekle WG, Nahab F, **Jovin TG**, Frei D, Siddiqui AH, Frankel MR, Mocco J. Epidemiological Surveillance of the Impact of the COVID-19 Pandemic on Stroke Care Using Artificial Intelligence. Stroke. 2021 Mar 4;STROKEAHA120031960. doi: 10.1161/STROKEAHA.120.031960. Epub ahead of print. PMID: 33657851.
  353. Nguyen TN, Haussen DC, Qureshi MM, Yamagami H, Fujinaka T, Mansour OY, Abdalkader M, Frankel M, Qiu Z, Taylor A, Lylyk P, Eker OF, Mechtouff L, Piotin M, Lima FO, Mont'Alverne F, Izzath W, Sakai N, Mohammaden M, Al-Bayati AR, Renieri L, Mangiafico S, Ozretic D, Chalumeau V, Ahmad S, Rashid U, Hussain SI, John S, Griffin E, Thornton J, Fiorot JA, Rivera R, Hammami N, Cervantes-Arslanian AM, Dasenbrock HH, Vu HL, Nguyen VQ, Hetts S, Bourcier R, Guile R, Walker M, Sharma M, Frei D, Jabbour P, Herial N, Al-Mufti F, Ozdemir AO, Aykac O, Gandhi D, Chugh C, Matouk C, Lavoie P, Edgell R, Beer-Furlan A, Chen M, Killer-Oberpfalzer M, Pereira VM, Nicholson P, Huded V, Ohara N, Watanabe D, Shin DH, Magalhaes PS, Kikano R, Ortega-Gutierrez S, Farooqui M, Abou-Hamden A, Amano T, Yamamoto R, Weeks A, Cora EA, Sivan-Hoffmann R, Crosa R, Möhlenbruch M, Nagel S, Al-Jehani H, Sheth SA, Lopez Rivera VS, Siegler JE, Sani AF, Puri AS, Kuhn AL, Bernava G, Machi P, Abud DG, Pontes-Neto OM, Wakhloo AK, Voetsch B, Raz E, Yaghi S, Mehta BP, Kimura N, Murakami M, Lee JS, Hong JM, Fahed R, Walker G, Hagashi E, Cordina SM, Roh HG, Wong K, Arenillas JF, Martinez-Galdamez M, Blasco J, Rodriguez Vasquez A, Fonseca L, Silva ML, Wu TY, John S, Brehm A, Psychogios M, Mack WJ, Tenser M, Todaka T, Fujimura M, Novakovic R, Deguchi J, Sugiura Y, Tokimura H, Khatri R, Kelly M, Peeling L, Murayama Y, Winters HS, Wong J, Teleb M, Payne J, Fukuda H, Miyake K, Shimbo J, Sugimura Y, Uno M, Takenobu Y, Matsumaru Y, Yamada S, Kono R, Kanamaru T, Morimoto M, Iida J, Saini V, Yavagal D, Bushnaq S, Huang W, Linfante I, Kirmani J, Liebeskind DS, Szeder V, Shah R, Devlin TG, Birnbaum L, Luo J, Churojana A, Masoud HE, Lopez CY, Steinfort B, Ma A, Hassan AE, Al Hashmi A, McDermott M, Mokin M, Chebl A, Kargiotis O, Tsivgoulis G, Morris JG, Eskey CJ, Thon J, Rebello L, Altschul D, Cornett O, Singh V, Pandian J, Kulkarni A, Lavados PM, Olavarria VV, Todo K, Yamamoto Y, Silva GS, Geyik S, Johann J, Multani S, Kaliev A, Sonoda K, Hashimoto H, Alhazzani A, Chung DY, Mayer SA, Fifi JT, Hill MD, Zhang H, Yuan Z, Shang X, Castonguay AC, Gupta R, **Jovin TG**, Raymond J, Zaidat OO, Nogueira RG; SVIN COVID-19

- Registry, the Middle East North Africa Stroke and Interventional Neurotherapies Organization (MENA-SINO); Japanese Society of Vascular and Interventional Neurology Society (JVIN). Decline in subarachnoid haemorrhage volumes associated with the first wave of the COVID-19 pandemic. *Stroke Vasc Neurol*. 2021 Mar 26;svn-2020-000695. doi: 10.1136/svn-2020-000695. Epub ahead of print. PMID: 33771936; PMCID: PMC8006491.
354. Sobhani F, Desai S, Madill E, Starr M, Rocha M, Molyneaux B, **Jovin T**, Wechsler L, Jadhav A. Remote Longitudinal Inpatient Acute Stroke Care Via Telestroke. *J Stroke Cerebrovasc Dis*. 2021 Mar 27;30(6):105749. doi: 10.1016/j.jstrokecerebrovasdis.2021.105749. Epub ahead of print. PMID: 33784522.
  355. Xiong Y, Pan Y, Nogueira RG, Ren Z, **Jovin TG**, Wang Y. Treating acute large vessel occlusion stroke: to bridge or not to bridge? *Stroke Vasc Neurol*. 2021 Sep;6(3):324-327. doi: 10.1136/svn-2021-000952. Epub 2021 Apr 26. PMID: 33903180
  356. Hanel RA, Yoon N, Sauvageau E, Aghaebrahim A, Lin E, Jadhav AP, **Jovin TG**, Khaldi A, Gupta RG, Johnson A, Frei D, Loy D, Malek A, Toth G, Siddiqui A, Reavey-Cantwell J, Thomas A, Hetts SW, Jankowitz BT, Zaidat OO. Neuroform Atlas Stent for Treatment of Middle Cerebral Artery Aneurysms: 1-Year Outcomes From Neuroform Atlas Stent Pivotal Trial. *Neurosurgery*. 2021 Apr 7;nyab090. doi: 10.1093/neuros/nyab090. Epub ahead of print. PMID: 33826707.
  357. Atchaneeyasakul K, Desai S, Malhotra K, Dolia J, Shah K, Saver JL, **Jovin T**, Jadhav AP. Intravenous tPA Delays Door-To-Puncture Time in Acute Ischemic Stroke with Large Vessel Occlusion. *J Stroke Cerebrovasc Dis*. 2021 Jun;30(6):105732. doi: 10.1016/j.jstrokecerebrovasdis.2021.105732. Epub 2021 Apr 14. PMID: 33865227.
  358. Desai SM, Ortega-Gutierrez S, Sheth SA, Farooqui M, Lopez-Rivera V, Zevallos C, Salazar-Marioni S, Quispe-Orozco D, Abdelkhalik R, Tonetti DA, **Jovin TG**, Jadhav AP. Clinically Approximated Hypoperfused Tissue in Large Vessel Occlusion Stroke. *Stroke*. 2021 Jun;52(6):2109-2114. doi: 10.1161/STROKEAHA.120.033294. Epub 2021 May 11. PMID: 33971743.
  359. C.P. Schreiber, M. Zaher, C. Bilbao, **T. Jovin**, Middle Meningeal Artery with Multiple Pseudoaneurysms and Their Management, *Interdisciplinary Neurosurgery: Advanced Techniques and Case Management Interdisciplinary Neurosurgery: Advanced Techniques and Case Management* (2021), doi: <https://doi.org/10.1016/j.inat.2021.101113>
  360. Almekhlafi MA, Goyal M, Dippel DWJ, Majoie CBLM, Campbell BCV, Muir KW, Demchuk AM, Bracard S, Guillemin F, **Jovin TG**, Mitchell P, White P, Hill MD, Brown S, Saver JL; HERMES Trialists Collaboration. Healthy Life-Year Costs of Treatment Speed From Arrival to Endovascular Thrombectomy in Patients With Ischemic Stroke: A Meta-analysis of Individual Patient Data From 7 Randomized Clinical Trials. *JAMA Neurol*. 2021 Jun 1;78(6):709-717. doi: 10.1001/jamaneurol.2021.1055. PMID: 33938914; PMCID: PMC8094030.
  361. Kakadia B, Thakkar R, Sanborn E, Suero-Abreu GA, **Jovin TG**, Then R. Nilotinib-Associated Atherosclerosis Presenting as Multifocal Intracranial Stenosis and Acute Stroke. *J Stroke Cerebrovasc Dis*. 2021 Jun 2;30(8):105883.

- doi: 10.1016/j.jstrokecerebrovasdis.2021.105883. Epub ahead of print. PMID: 34090174.
362. Desai SM, Malhotra K, Ramaiah G, Tonetti DA, Haq W, **Jovin TG**, Jadhav AP. Rescue of Neglect and Language Impairment After Stroke Thrombectomy. *Stroke*. 2021 Oct;52(10):3209-3216. doi: 10.1161/STROKEAHA.121.034243. Epub 2021 Jul 16. PMID: 34266307.
  363. Li C, Wu C, Wu L, Zhao W, Chen J, Ren M, Yao C, Yan X, Dong C, Song H, Ma Q, Duan J, Zhang Y, Zhang H, Jiao L, Wang Y, **Jovin TG**, Ji X; BAOCHE Investigators. Basilar Artery Occlusion Chinese Endovascular Trial: Protocol for a prospective randomized controlled study. *Int J Stroke*. 2021 Aug 28:17474930211040923. doi: 10.1177/17474930211040923. Epub ahead of print. PMID: 34427475.
  364. Ng FC, Yassi N, Sharma G, Brown SB, Goyal M, Majoie CBLM, **Jovin TG**, Hill MD, Muir KW, Saver JL, Guillemin F, Demchuk AM, Menon BK, San Roman L, Liebeskind DS, White P, Dippel DWJ, Davalos A, Bracard S, Mitchell PJ, Wald MJ, Davis SM, Sheth KN, Kimberly WT, Campbell BCV; HERMES Collaborators. Cerebral Edema in Patients With Large Hemispheric Infarct Undergoing Reperfusion Treatment: A HERMES Meta-Analysis. *Stroke*. 2021 Nov;52(11):3450-3458. doi: 10.1161/STROKEAHA.120.033246. Epub 2021 Aug 13. PMID: 34384229; PMCID: PMC8545835.
  365. Albers GW, Lansberg MG, Brown S, Jadhav AP, Haussen DC, Martins SO, Rebello LC, Demchuk AM, Goyal M, Ribo M, Turk AS, Liebeskind DS, Heit JJ, Marks MP, **Jovin TG**, Nogueira RG; AURORA Investigators. Assessment of Optimal Patient Selection for Endovascular Thrombectomy Beyond 6 Hours After Symptom Onset: A Pooled Analysis of the AURORA Database. *JAMA Neurol*. 2021 Sep 1;78(9):1064-1071. doi: 10.1001/jamaneurol.2021.2319. Erratum in: *JAMA Neurol*. 2021 Sep 1;78(9):1154. PMID: 34309619; PMCID: PMC8314176.
  366. Rana A, Yu S, Reid-Herrera S, Kamen S, Hunter K, Shaikh H, **Jovin T**, Thon OR, Patel P, Siegler JE, Thon JM Eptifibatide use in ischemic stroke patients undergoing endovascular thrombectomy: A matched cohort analysis *Front Neurol*. 2022 Sep 27;13:939215. doi: 10.3389/fneur.2022.939215. eCollection 2022. PMID: 36237613
  367. Wechsler LR, Jadhav AP, **Jovin TG** XIth Stroke Treatment Academic Industry Roundtable. How to Establish the Outer Limits of Reperfusion Therapy. *Stroke*. 2021 Oct;52(10):3399-3403. doi: 10.1161/STROKEAHA.121.035022. Epub 2021 Sep 2. PMID: 34470484
  368. Siddiqui AH, Waqas M, Brinjikji W, De Meyer SF, Doyle K, Fiehler J, Hacke W, Hanel RA, **Jovin TG**, Liebeskind DS, Yoo AJ, Zaidat OO, Andersson T, Nogueira RG. Embotrap Extraction & Clot Evaluation & Lesion Evaluation for NeuroThrombectomy (EXCELLENT) Registry design and methods. *J Neurointerv Surg*. 2021 Oct 13:neurintsurg-2021-017671. doi: 10.1136/neurintsurg-2021-017671. Epub ahead of print. PMID: 34645704.
  369. Serial ASPECTS in the DAWN Trial: Infarct Evolution and Clinical Impact. Liebeskind DS, Saber H, Bhuva P, Xiang B, Yoo AJ, Jadhav AP, Haussen DC, Budzik RF, Bonafe A, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila C,

- Hassan AE, Smith WS, Saver JL, Nogueira RG, **Jovin TG**. Stroke. 2021 Oct;52(10):3318-3324. doi: 10.1161/STROKEAHA.120.033477. Epub 2021 Jul 20. PMID: 34281376
370. Thon JM, **Jovin TG**. Imaging as a Selection Tool for Thrombectomy in Acute Ischemic Stroke: Pathophysiologic Considerations. Neurology. 2021 Nov 16;97(20 Supplement 2):S52-S59. doi: 10.1212/WNL.00000000000012793. PMID: 34785604.
  371. Jadhav, A. P., Desai, S. M., Zaidat, O. O., Nogueira, R. G., **Jovin, T. G.**, Haussen, D. C., Mueller-Kronast, N., & Liebeskind, D. S. (2021). First Pass Effect With Neurothrombectomy for Acute Ischemic Stroke: Analysis of the Systematic Evaluation of Patients Treated With Stroke Devices for Acute Ischemic Stroke Registry. Stroke, Strokeaha121035457. <https://doi.org/10.1161/strokeaha.121.035457> PMID: 34784741
  372. Jadhav AP, Desai SM, **Jovin TG**. Indications for Mechanical Thrombectomy for Acute Ischemic Stroke: Current Guidelines and Beyond. Neurology. 2021 Nov 16;97(20 Suppl 2):S126-S136. doi: 10.1212/WNL.00000000000012801. PMID: 34785611.
  373. Jadhav AP, Goyal M, Ospel J, Campbell BC, Majoie CBLM, Dippel DW, White P, Bracard S, Guillemin F, Davalos A, Hill MD, Demchuk AM, Brown S, Saver JL, Muir KW, Mitchell P, Desai SM, **Jovin TG**. Thrombectomy With and Without Computed Tomography Perfusion Imaging in the Early Time Window: A Pooled Analysis of Patient-Level Data. Stroke. 2021 Nov 30;STROKEAHA121034331. doi: 10.1161/STROKEAHA.121.034331. Epub ahead of print. PMID: 34844423.
  374. Kutkut I, **Jovin TG**, Jovin IS. Chronic kidney disease as a risk factor for poor outcomes after endovascular stroke intervention. Cardiovasc Revasc Med. 2021 Nov 2:S1553-8389(21)00724-7. doi: 10.1016/j.carrev.2021.10.019. Epub ahead of print. PMID: 34764030.
  375. Ren Z, Ma G, Mokin M, Jadhav AP, Jia B, Tong X, Bauer C, Liu R, Wang A, Zhang X, Mo D, Ma N, Gao F, Song L, Sun X, Huo X, Deng Y, Liu L, Luo G, Luo X, Peng Y, Gui L, Song C, Wu J, Wang L, Li C, **Jovin TG**, Wang Y, Wang Y, Miao Z; ANGEL-ACT Study Group. Non-contrast head CT alone for thrombectomy in acute ischemic stroke: analysis of the ANGEL-ACT registry. J Neurointerv Surg. 2021 Oct 1;neurintsurg-2021-017940. doi: 10.1136/neurintsurg-2021-017940. Epub ahead of print. PMID: 34599086.
  376. Nguyen TN, Abdalkader M, Nagel S, Qureshi MM, Ribo M, Caparros F, Haussen DC, Mohammaden MH, Sheth SA, Ortega-Gutierrez S, Siegler JE, Zaidi S, Olive-Gadea M, Henon H, Möhlenbruch MA, Castonguay AC, Nannoni S, Kaesmacher J, Puri AS, Seker F, Farooqui M, Salazar-Marioni S, Kuhn AL, Kaliaev A, Farzin B, Boisseau W, Masoud HE, Lopez CY, Rana A, Kareem SA, Sathya A, Klein P, Kassem MW, Ringleb PA, Cordonnier C, Gralla J, Fischer U, Michel P, **Jovin TG**, Raymond J, Zaidat OO, Nogueira RG. Noncontrast Computed Tomography vs Computed Tomography Perfusion or Magnetic Resonance Imaging Selection in Late Presentation of Stroke With Large-Vessel Occlusion JAMA Neurol. 2022 Jan 1;79(1):22-31. doi: 10.1001/jamaneurol.2021.4082. PMID: 34747975

377. McDonough RV, Ospel JM, Majoie CBLM, Saver JL, White P, Dippel DWJ, Brown SB, Demchuk AM, **Jovin TG**, Mitchell PJ, Bracard S, Campbell BCV, Muir KW, Hill MD, Guillemin F, Goyal M; HERMES collaborators. Clinical outcome of patients with mild pre-stroke morbidity following endovascular treatment: a HERMES substudy. *Neurointerv Surg*. 2022 Feb 24;neurintsurg-2021-018428. doi: 10.1136/neurintsurg-2021-018428. Online ahead of print. PMID: 35210331
378. Kutkut I, **Jovin TG**, Jovin IS. Chronic Kidney Disease as a Risk Factor for Poor Outcomes After Endovascular Stroke Intervention. *Cardiovasc Revasc Med*. 2022 Jan;34:126-127. doi: 10.1016/j.carrev.2021.10.019. Epub 2021 Nov 2. PMID: 34764030
379. Desai SM, Tonetti DA, **Jovin TG**, Jadhav AP. Fast and slow progressors of infarct growth in basilar artery occlusion strokes. *J Neurointerv Surg*. 2022 Jan;14(1):neurintsurg-2021-017394. doi: 10.1136/neurintsurg-2021-017394. Epub 2021 Mar 25. PMID: 33766940
380. Liebeskind DS, Saber H, Xiang B, Jadhav AP, **Jovin TG**, Haussen DC, Budzik RF, Bonafe A, Bhuva P, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila C, Hassan AE, Smith WS, Saver JL, Nogueira RG; DAWN Investigators. Stroke. Collateral Circulation in Thrombectomy for Stroke After 6 to 24 Hours in the DAWN Trial 2022 Mar;53(3):742-748. doi: 10.1161/STROKEAHA.121.034471. Epub 2021 Nov 3. PMID: 34727737
381. Nogueira RG, Haussen DC, Liebeskind DS, **Jovin TG**, Gupta R, Saver JL, Jadhav AP, Budzik RF, Baxter B, Krajina A, Bonafe A, Malek A, Narata AP, Mohammaden MH, Zhang Y, Morgan P, Ji M, Bartolini B, English J, Albers GW, Mlynash M, Lansberg MG, Frankel MR, Pereira VM, Veznedaroglu E; Trevo Registry, SWIFT Prime, DEFUSE 3 and DAWN Trial Investigators. Clinical effectiveness of endovascular stroke treatment in the early and extended time windows. *Int J Stroke*. 2022 Apr;17(4):389-399. doi: 10.1177/17474930211005740. Epub 2021 Apr 20. PMID: 33705210
382. Jankowitz BT, Jadhav AP, Gross B, **Jovin TG**, Alhajeri AA, Fraser JF, Hanel RA, Sauvageau E, Aghaebrahim A, Frei D, Bellon R, Loy D, Puri AS, Malek AM, Thomas A, Toth G, Lopes DK, Crowley RW, Arthur AS, Reavey-Cantwell J, Lin E, Siddiqui AH, Alexander MJ, Khaldi A, Colby GP, Caplan JM, Satti SR, Turk AS, Spiotta AM, Klucznik R, Hallam DK, Kung D, Froehler MT, Callison RC, Kan P, Hetts SW, Zaidat OO. Pivotal trial of the Neuroform Atlas stent for treatment of posterior circulation aneurysms: one-year outcomes. *J Neurointerv Surg*. 2022 Feb;14(2):143-148. doi: 10.1136/neurintsurg-2020-017115. Epub 2021 Mar 15. PMID: 33722961
383. Jadhav AP, Desai SM, Zaidat OO, Nogueira RG, **Jovin TG**, Haussen DC, Mueller-Kronast N, Liebeskind DS. First Pass Effect With Neurothrombectomy for Acute Ischemic Stroke: Analysis of the Systematic Evaluation of Patients Treated With Stroke Devices for Acute Ischemic Stroke Registry. *Stroke*. 2022 Feb;53(2):e30-e32. doi: 10.1161/STROKEAHA.121.035457. Epub 2021 Nov 17. PMID: 34784741
384. **Jovin TG**, Nogueira RG, Lansberg MG, Demchuk AM, Martins SO, Mocco J, Ribo M, Jadhav AP, Ortega-Gutierrez S, Hill MD, Lima FO, Haussen DC, Brown

- S, Goyal M, Siddiqui AH, Heit JJ, Menon BK, Kemp S, Budzik R, Urra X, Marks MP, Costalat V, Liebeskind DS, Albers GW, Thrombectomy for anterior circulation stroke beyond 6 h from time last known well (AURORA): a systematic review and individual patient data meta-analysis *Lancet*. 2022 Jan 15;399(10321):249-258. doi: 10.1016/S0140-6736(21)01341-6. Epub 2021 Nov 11. PMID: 34774198
385. Jillella DV, Nahab F, Nguyen TN, Abdalkader M, Liebeskind DS, Vora N, Rai V, Haussen DC, Nogueira RG, Desai S, Jadhav AP, Czap AL, Zha AM, Linfante I, Hassan AE, Quispe-Orozco D, Ortega-Gutierrez S, Khandelwal P, Patel P, Zaidat O, **Jovin TG**, Kamen S, Siegler JE. Delays in thrombolysis during COVID-19 are associated with worse neurological outcomes: the Society of Vascular and Interventional Neurology Multicenter Collaboration. *J Neurol*. 2022 Feb;269(2):603-608. doi: 10.1007/s00415-021-10734-z. Epub 2021 Jul 31. PMID: 34333701
  386. Czap AL, Zha AM, Sebaugh J, Hassan AE, Shulman JG, Abdalkader M, Nguyen TN, Linfante I, Starosciak AK, Ortega-Gutierrez S, Farooqui M, Quispe-Orozco D, Vora NA, Rai V, Nogueira RG, Haussen DC, Jillella DV, Rana A, Yu S, Thon JM, Zaidat OO, Khandelwal P, Bach I, Sheth SA, Jadhav AP, Desai SM, **Jovin TG**, Liebeskind DS, Siegler JE. Endovascular thrombectomy time metrics in the era of COVID-19: observations from the Society of Vascular and Interventional Neurology Multicenter Collaboration. *J Neurointerv Surg*. 2022 Jan;14(1):neurintsurg-2020-017205. doi: 10.1136/neurintsurg-2020-017205. Epub 2021 Feb 8. PMID: 33558439
  387. Tolhuisen ML, Ernst M, Boers AMM, Brown S, Beenen LFM, Guillemin F, Roos YBWEM, Saver JL, van Oostenbrugge R, Demchuck AM, van Zwam W, **Jovin TG**, Berkhemer OA, Muir KW, Bracard S, Campbell BCV, van der Lugt A, White P, Hill MD, Dippel DWJ, Mitchell PJ, Goyal M, Caan MWA, Marquering HA, Majoie CBLM; HERMES collaborators. Value of infarct location in the prediction of functional outcome in patients with an anterior large vessel occlusion: results from the HERMES study. *Neuroradiology*. 2022 Mar;64(3):521-530. doi: 10.1007/s00234-021-02784-x. Epub 2021 Sep 3. PMID: 34476512
  388. Bourcier R, Goyal M, Muir KW, Desal H, Dippel DWJ, Majoie CBLM, van Zwam WH, **Jovin TG**, Mitchell PJ, Demchuk AM, van Oostenbrugge RJ, Brown SB, Campbell B, White P, Hill MD, Saver JL, Weimar C, Jahan R, Guillemin F, Bracard S, Naggara O; HERMES Trialists Collaboration. Risk factors of unexplained early neurological deterioration after treatment for ischemic stroke due to large vessel occlusion: a post hoc analysis of the HERMES study. *J Neurointerv Surg*. 2022 Feb 15:neurintsurg-2021-018214. doi: 10.1136/neurintsurg-2021-018214. Online ahead of print. PMID: 35169030
  389. Nogueira RG, **Jovin TG**, Haussen DC, Gupta R, Jadhav A, Budzik RF, Baxter B, Krajina A, Bonafe A, Malek A, Narata AP, Shields R, Zhang Y, Morgan P, Bartolini B, English J, Mohammad M, Frankel MR, Liebeskind DS, Veznedaroglu E; Trevo Registry and DAWN Trial Investigators. Influence of time to endovascular stroke treatment on outcomes in the early versus extended

- window paradigms. *Int J Stroke*. 2022 Mar;17(3):331-340. doi: 10.1177/17474930211006304. Epub 2021 Apr 7. PMID: 33724080
390. Olivé-Gadea M, Pérez de la Ossa N, **Jovin TG**, Abilleira S, Jiménez-Fàbrega X, Cardona P, Chamorro Á, Flores A, Silva Y, Purroy F, Martí-Fàbregas J, Rodríguez-Campello A, Zaragoza J, Krupinski J, Canovas D, Gomez-Choco M, Mas N, Palomeras E, Cocho D, Aragones JM, Repullo C, Sanjurjo E, Carrion D, Catena E, Costa X, Almendros MC, Barceló M, Monedero J, Rybye M, Diaz G, Ribo M. Evolution of quality indicators in acute stroke during the RACECAT Trial: impact in the general population. *Int J Stroke*. 2022 Apr 4;17474930221093523. doi: 10.1177/17474930221093523. Online ahead of print. PMID: 35373657
  391. Pérez de la Ossa N, Abilleira S, **Jovin TG**, García-Tornel Á, Jimenez X, Urra X, Cardona P, Cocho D, Purroy F, Serena J, San Román Manzanera L, Vivanco-Hidalgo RM, Salvat-Plana M, Chamorro A, Gallofré M, Molina CA, Cobo E, Davalos A, Ribo M; RACECAT Trial Investigators. JAMA. Effect of Direct Transportation to Thrombectomy-Capable Center vs Local Stroke Center on Neurological Outcomes in Patients With Suspected Large-Vessel Occlusion Stroke in Nonurban Areas: The RACECAT Randomized Clinical Trial 2022 May 10;327(18):1782-1794. doi: 10.1001/jama.2022.4404. PMID: 35510397
  392. Galecio-Castillo M, Vivanco-Suarez J, Zevallos CB, Dajles A, Weng J, Farooqui M, Ribo M, **Jovin TG**, Ortega-Gutierrez S. Direct to angiography suite strategy versus standard workflow triage for endovascular therapy: systematic review and meta-analysis *J Neurointerv Surg*. 2022 Jun 16;neurintsurg-2022-018895. doi: 10.1136/neurintsurg-2022-018895. PMID: 35710313
  393. McDonough RV, Ospel JM, Campbell BCV, Hill MD, Saver JL, Dippel DWJ, Demchuk AM, Majoie CBLM, Brown SB, Mitchell PJ, Bracard S, Guillemin F, **Jovin TG**, Muir KW, White P, Goyal M; HERMES Collaborators. Functional Outcomes of Patients  $\geq 85$  Years With Acute Ischemic Stroke Following EVT: A HERMES Substudy. *Stroke*. 2022 Jul;53(7):2220-2226. doi: 10.1161/STROKEAHA.121.037770. Epub 2022 Jun 15. PMID: 35703094
  394. Ng FC, Yassi N, Sharma G, Brown SB, Goyal M, Majoie CBLM, **Jovin TG**, Hill MD, Muir KW, Saver JL, Guillemin F, Demchuk AM, Menon BK, San Roman L, White P, van der Lugt A, Ribo M, Bracard S, Mitchell PJ, Davis SM, Sheth KN, Kimberly WT, Campbell BCV; HERMES Collaborators. Stroke. Correlation Between Computed Tomography-Based Tissue Net Water Uptake and Volumetric Measures of Cerebral Edema After Reperfusion Therapy 2022 Aug;53(8):2628-2636. doi: 10.1161/STROKEAHA.121.037073. Epub 2022 Apr 22. PMID: 35450438
  395. McDonough RV, Ospel JM, Campbell BCV, Hill MD, Saver JL, Dippel DWJ, Demchuk AM, Majoie CBLM, Brown SB, Mitchell PJ, Bracard S, Guillemin F, **Jovin TG**, Muir KW, White P, Goyal M; HERMES Collaborators. Functional Outcomes of Patients  $\geq 85$  Years With Acute Ischemic Stroke Following EVT: A HERMES Substudy *Stroke*. 2022 Jul;53(7):2220-2226. doi: 10.1161/STROKEAHA.121.037770. Epub 2022 Jun 15. PMID: 35703094
  396. White CJ, Brott TG, Gray WA, Heck D, **Jovin T**, Lyden SP, Metzger DC, Rosenfield K, Roubin G, Sachar R, Siddiqui A. Carotid Artery Stenting: JACC

- State-of-the-Art Review J Am Coll Cardiol. 2022 Jul 12;80(2):155-170. doi: 10.1016/j.jacc.2022.05.007.PMID: 35798450
397. García-Tornel Á, Seró L, Urra X, Cardona P, Zaragoza J, Krupinski J, Gómez-Choco M, Sala NM, Catena E, Palomeras E, Serena J, Hernandez-Perez M, Boned S, Olivé-Gadea M, Requena M, Muchada M, Tomasello A, Molina CA, Salvat-Plana M, Escudero M, Jimenez X, Davalos A, **Jovin TG**, Purroy F, Abilleira S, Ribo M, de la Ossa NP; RACECAT trial investigators. Workflow Times and Outcomes in Patients Triage for a Suspected Severe Stroke Ann Neurol. 2022 Dec;92(6):931-942. doi: 10.1002/ana.26489. Epub 2022 Sep 7. PMID: 36053966
  398. **Jovin TG**, Li C, Wu L, Wu C, Chen J, Jiang C, Shi Z, Gao Z, Song C, Chen W, Peng Y, Yao C, Wei M, Li T, Wei L, Xiao G, Yang H, Ren M, Duan J, Liu X, Yang Q, Liu Y, Zhu Q, Shi W, Zhu Q, Li X, Guo Z, Yang Q, Hou C, Zhao W, Ma Q, Zhang Y, Jiao L, Zhang H, Liebeskind DS, Liang H, Jadhav AP, Wen C, Brown S, Zhu L, Ye H, Ribo M, Chang M, Song H, Chen J, Ji X; BAOCHE Investigators. Trial of Thrombectomy 6 to 24 Hours after Stroke Due to Basilar-Artery Occlusion N Engl J Med. 2022 Oct 13;387(15):1373-1384. doi: 10.1056/NEJMoa2207576. PMID: 36239645
  399. Siegler ASJE, Qureshi MM, Nogueira RG, Tanaka K, Nagel S, Michel P, Vigilante N, Ribo M, Yamagami H, Yoshimura S, Abdalkader M, Haussen DC, Mohammaden MH, Nannoni S, Möhlenbruch M, Henon H, Sheth SA, Gutierrez SO, Olive-Gadea M, Caparros F, Şeker F, Zaidi S, Castonguay A, Uchida K, Sakai N, Puri AS, Farooqui M, Toyoda K, Salazar-Marioni S, Takeuchi M, Farzin B, Masoud HE, Kuhn AL, Rana A, Morimoto M, Shibata M, Nonaka T, Klein P, Sathya A, Kiley NL, Cordonnier C, Strambo D, Demeestere J, Ringleb PA, Roy D, Zaidat OO, **Jovin TG**, Kaesmacher J, Fischer U, Raymond J, Nguyen TN. Endovascular vs Medical Management for Late Anterior Large Vessel Occlusion With Prestroke Disability: Analysis of CLEAR and RESCUE-Japan Neurology. 2022 Nov 4;10.1212/WNL.0000000000201543. doi: 10.1212/WNL.0000000000201543. Online ahead of print. PMID: 36332983
  400. Seker F, Qureshi MM, Möhlenbruch MA, Nogueira RG, Abdalkader M, Ribo M, Caparros F, Haussen DC, Mohammaden MH, Sheth SA, Ortega-Gutierrez S, Siegler JE, Zaidi SF, Olive-Gadea M, Henon H, Castonguay AC, Nannoni S, Kaesmacher J, Puri AS, Farooqui M, Salazar-Marioni S, Kuhn AL, Kiley NL, Farzin B, Boisseau W, Masoud HE, Lopez CY, Rana A, Abdul Kareem S, Sathya A, Klein P, Kassem MW, Cordonnier C, Gralla J, Fischer U, Michel P, Strambo D, **Jovin TG**, Raymond J, Zaidat OO, Ringleb PA, Nguyen TN, Nagel S. Reperfusion Without Functional Independence in Late Presentation of Stroke With Large Vessel Occlusion Stroke. 2022 Dec;53(12):3594-3604. doi: 10.1161/STROKEAHA.122.039476. Epub 2022 Oct 14. PMID: 36252092
  401. Gensicke H, Al-Ajlan F, Fladt J, Campbell BCV, Majoie CBLM, Bracard S, Hill MD, Muir KW, Demchuk A, San Román L, van der Lugt A, Liebeskind DS, Brown S, White PM, Guillemin F, Dávalos A, **Jovin TG**, Saver JL, Dippel DWJ, Goyal M, Mitchell PJ, Menon BK; HERMES Collaborators. Comparison of Three Scores of Collateral Status for Their Association With Clinical Outcome: The HERMES Collaboration Stroke. 2022 Dec;53(12):3548-3556. doi: 10.1161/STROKEAHA.122.039717. Epub 2022 Oct 17. PMID: 36252099

402. Ospel JM, Kunz WG, McDonough RV, van Zwam W, Pinckaers F, Saver JL, Hill MD, Demchuk AM, **Jovin TG**, Mitchell P, Campbell BCV, White P, Muir K, Achit H, Bracard S, Brown S, Goyal M; HERMES Investigators. Cost-Effectiveness of Endovascular Treatment in Large Vessel Occlusion Stroke With Mild Prestroke Disability: Results From the HERMES Collaboration Stroke. 2023 Jan;54(1):226-233. doi: 10.1161/STROKEAHA.121.038407. Epub 2022 Dec 6. PMID: 36472199
403. Hernández-Jiménez M, Abad-Santos F, Cotgreave I, Gallego J, Jilma B, Flores A, **Jovin TG**, Vivancos J, Molina CA, Montaner J, Casariego J, Dalsgaard M, Hernández-Pérez M, Liebeskind DS, Cobo E, Ribo M. APRIL: A double-blind, placebo-controlled, randomized, Phase Ib/IIa clinical study of ApTOLL for the treatment of acute ischemic stroke. *Front Neurol*. 2023 Feb 24;14:1127585. doi: 10.3389/fneur.2023.1127585. eCollection 2023. PMID: 36908619
404. Klein P, Huo X, Chen Y, Abdalkader M, Qiu Z, Nagel S, Raymond J, Liu L, Siegler JE, Strbian D, Field TS, Yaghi S, Qureshi MM, Demeestere J, Puetz V, Berberich A, Michel P, Fischer U, Kaesmacher J, Yamagami H, Alemseged F, Tsivgoulis G, Schonewille WJ, Hu W, Liu X, Li C, Ji X, Drumm B, Banerjee S, Sacco S, Sandset EC, Kristoffersen ES, Slade P, Mikulik R, Romoli M, Diana F, Krishnan K, Dhillon P, Lee JS, Kasper E, Dasenbrock H, Ton MD, Masiliūnas R, Arsovska AA, Marto JP, Dmytriw AA, Regenhardt RW, Silva GS, Siepmann T, Sun D, Sang H, Diestro JD, Yang P, Mohammaden MH, Li F, Masoud HE, Ma A, Raynald, Ganesh A, Liu J, Meyer L, Dippel DWJ, Thomalla G, Parsons M, Qureshi AI, Goyal M, Yoo AJ, Lapergue B, Zaidat OO, Chen HS, Campbell BCV, **Jovin TG**, Nogueira RG, Miao Z, Saposnik G, Nguyen TN. Specialist Perspectives on the Imaging Selection of Large Vessel Occlusion in the Late Window. *Clin Neuroradiol*. 2023 Apr 3:1-11. doi: 10.1007/s00062-023-01284-0. Online ahead of print. PMID: 37010551
405. Samuels N, van de Graaf RA, Mulder MJHL, Brown S, Roozenbeek B, van Doormaal PJ, Goyal M, Campbell BCV, Muir KW, Agrinier N, Bracard S, White PM, Román LS, **Jovin TG**, Hill MD, Mitchell PJ, Demchuk AM, Bonafe A, Devlin TG, van Es ACGM, Lingsma HF, Dippel DWJ, van der Lugt A; HERMES Collaborators. Admission systolic blood pressure and effect of endovascular treatment in patients with ischaemic stroke: an individual patient data meta-analysis. *Lancet Neurol*. 2023 Apr;22(4):312-319. doi: 10.1016/S1474-4422(23)00076-5. PMID: 36931806
406. Ospel JM, Mirza M, Clarençon F, Siddiqui A, Doyle K, Consoli A, Mokin M, Ullberg T, Zaidat O, Bourcier R, Kulcsar Z, Gounis MJ, Liebeskind DS, Fiehler J, Narata AP, Ribo M, **Jovin T**, Sakai N, Rai A, McCarthy R, Dorn F, Andersson T, Majoie CBLM, Hanel R, Jadhav A, Riedel C, Chamorro A, Brinjikji W, Costalat V, DeMeyer SF, Nogueira RG, Cognard C, Montaner J, Leung TW, Molina C, van Beusekom H, Davalos A, Weisel J, Chapot R, Möhlenbruch M, Brouwer P. What is a Challenging Clot? : A DELPHI Consensus Statement from the CLOTS 7.0 Summit. *Clin Neuroradiol*. 2023 Jun 7. doi: 10.1007/s00062-023-01301-2. Online ahead of print. PMID: 37284876
407. Arquizán C, Lapergue B, Gory B, Labreuche J, Henon H, Albucher JF, Sibon I, Turc G, Richard S, Nouri N, Cognard C, Marnat G, Naggara O, Di Maria F,

- Duhamel A, **Jovin TG**, Costalat V. Evaluation of acute mechanical revascularization in minor stroke (NIHSS score  $\leq 5$ ) and large vessel occlusion: the MOSTE multicenter, randomized, clinical trial protocol. *Int J Stroke*. 2023 Jun 23;17474930231186039. doi: 10.1177/17474930231186039. Online ahead of print. PMID: 37350574
408. Rodriguez-Calienes A, Galecio-Castillo M, Vivanco-Suarez J, Mohamed GA, Toth G, Sarraj A, Pujara D, Chowdhury AA, Farooqui M, Ghannam M, Samaniego EA, **Jovin TG**, Ortega-Gutierrez S. J Endovascular thrombectomy beyond 24 hours from last known well: a systematic review with meta-analysis. *Neurointerv Surg*. 2023 Jun 24;jnis-2023-020443. doi: 10.1136/jnis-2023-020443. Online ahead of print. PMID: 37355251
  409. Hernández-Jiménez M, Abad-Santos F, Cotgreave I, Gallego J, Jilma B, Flores A, **Jovin TG**, Vivancos J, Hernández-Pérez M, Molina CA, Montaner J, Casariego J, Dalsgaard M, Liebeskind DS, Cobo E, Castellanos M, Portela PC, Masjuán J, Moniche F, Tembl JI, Terceño Izaga M, Arenillas JF, Callejas P, Olivot JM, Calviere L, Henon H, Mazighi M, Piñeiro D, Pugliese M, González VM, Moro MA, Garcia-Tornel A, Lizasoain I, Ribo M. Safety and Efficacy of ApTOLL in Patients With Ischemic Stroke Undergoing Endovascular Treatment: A Phase 1/2 Randomized Clinical Trial. *JAMA Neurol*. 2023 Jun 20:e231660. doi: 10.1001/jamaneurol.2023.1660. Online ahead of print. PMID: 37338893
  410. Desai SM, Psychogios M, Khatri P, **Jovin TG**, Jadhav AP. Direct Transfer to the Neuroangiography Suite for Patients With Stroke. *Stroke*. 2023 Jun;54(6):1674-1684. doi: 10.1161/STROKEAHA.122.033447. Epub 2023 Mar 31. PMID: 36999410
  411. García-Tornel Á, Flores A, Terceño M, Cardona P, Amaro S, Gomis M, Zaragoza J, Krupinski J, Gómez-Choco M, Mas N, Cocho D, Catena E, Purroy F, Deck M, Rubiera M, Pagola J, Rodriguez-Luna D, Juega J, Rodríguez-Villatoro N, Molina CA, Soro C, Jimenez X, Salvat-Plana M, Dávalos A, **Jovin TG**, Abilleira S, Pérez de la Ossa N, Ribó M; RACECAT Trial Investigators. Association of Time of Day With Outcomes Among Patients Triageed for a Suspected Severe Stroke in Nonurban Catalonia. *Stroke*. 2023 Mar;54(3):770-780. doi: 10.1161/STROKEAHA.122.041013. Epub 2023 Feb 27. PMID: 36848432
  412. Abdalkader M, Finitis S, Li C, Hu W, Liu X, Ji X, Huo X, Alemseged F, Qiu Z, Strbian D, Puetz V, Siegler JE, Yaghi S, Asif K, Klein P, Zhu Y, Campbell BCV, Chen HS, Nagel S, Tsivgoulis G, Miao Z, Nogueira RG, **Jovin TG**, Schonewille WJ, Nguyen TN; Basilar Artery Ischemia Network STudy of Endovascular versus Medical Management (BRAINSTEM) Group. Endovascular versus Medical Management of Acute Basilar Artery Occlusion: A Systematic Review and Meta-Analysis of the Randomized Controlled Trials. *J Stroke*. 2023 Jan;25(1):81-91. doi: 10.5853/jos.2022.03755. Epub 2023 Jan 31. PMID: 36746382
  413. Edwards C, Drumm B, Siegler JE, Schonewille WJ, Klein P, Huo X, Chen Y, Abdalkader M, Qureshi MM, Strbian D, Liu X, Hu W, Ji X, Li C, Fischer U, Nagel S, Puetz V, Michel P, Alemseged F, Sacco S, Yamagami H, Yaghi S, Strambo D, Kristoffersen ES, Sandset EC, Mikulik R, Tsivgoulis G, Masoud HE, de Sousa DA, Marto JP, Lobotesis K, Roi D, Berberich A, Demeestere J, Meinel

- TR, Rivera R, Poli S, Ton MD, Zhu Y, Li F, Sang H, Thomalla G, Parsons M, Campbell BCV, Zaidat OO, Chen HS, Field TS, Raymond J, Kaesmacher J, Nogueira RG, **Jovin TG**, Sun D, Liu R, Qureshi AI, Qiu Z, Miao Z, Banerjee S, Nguyen TN. Basilar artery occlusion management: Specialist perspectives from an international survey. *J Neuroimaging*. 2023 May-Jun;33(3):422-433. doi: 10.1111/jon.13084. Epub 2023 Feb 13. PMID: 36781295
414. Chalos V, Venema E, Mulder MJHL, Roozenbeek B, Steyerberg EW, Wermer MJH, Lycklama À Nijeholt GJ, van der Worp HB, Goyal M, Campbell BCV, Muir KW, Guillemin F, Bracard S, White P, Dávalos A, **Jovin TG**, Hill MD, Mitchell PJ, Demchuk AM, Saver JL, van der Lugt A, Brown S, Dippel DWJ, Lingsma HF; HERMES CollaboratorsMR CLEAN Registry Investigators. Development and Validation of a Postprocedural Model to Predict Outcome After Endovascular Treatment for Ischemic Stroke. *JAMA Neurol*. 2023 Jul 31:e232392. doi: 10.1001/jamaneurol.2023.2392. Online ahead of print. PMID: 37523199
415. Dicipinigaitis AJ, Dick-Godfrey R, Gellerson O, Shapiro SD, Kamal H, Khozy S, Kaur G, Desai SM, Ortega-Gutierrez S, Yaghi S, Altschul DJ, Jadhav AP, Hassan AE, Nguyen TN, Brook AL, Mayer SA, **Jovin TG**, Nogueira RG, Gandhi CD, Al-Mufti F. *Ann Neurol*. 2023 Jul;94(1):55-60. doi: 10.1002/ana.26640. Epub 2023 Mar 21. PMID: 36897101
416. Costalat V, Lapergue B, Albucher JF, Labreuche J, Henon H, Gory B, Sibon I, Boulouis G, Cognard C, Nouri N, Richard S, Marnat G, Di Maria F, Annan M, Duhamel A, Cagnazzo F, **Jovin T**, Arquizan C; LASTE Trial Investigators. Evaluation of acute mechanical revascularization in large stroke (ASPECTS  $\leq$ 5) and large vessel occlusion within 7 h of last-seen-well: The LASTE multicenter, randomized, clinical trial protocol. *Int J Stroke*. 2023 Jul 31:17474930231191033. doi: 10.1177/17474930231191033. Online ahead of print. PMID: 37462028
417. Rex N, Ospel JM, Brown SB, McDonough RV, Kashani N, Hill MD, Dippel DWJ, Campbell B, Muir KW, Demchuk AM, Bracard S, Guillemin F, **Jovin TG**, Mitchell PJ, White P, Majoie CBLM, Saver JL, Goyal M. Endovascular therapy in acute ischemic stroke with poor reperfusion is associated with worse outcomes compared with best medical management: a HERMES substudy. *J Neurointerv Surg*. 2023 Aug 2:jnis-2023-020411. doi: 10.1136/jnis-2023-020411. Online ahead of print. PMID: 37532454
- 418.

### **Book Chapters and Reviews**

1. **Jovin T**, Gebel JM, Wechsler LR. Intra-arterial thrombolysis for acute ischemic stroke. *J Stroke Cerebrovasc Dis* 2002 May-Aug;11(3-4):148-61
2. **Jovin TG**, Wechsler LR. Acute Stroke. In Babikian V, Higashida R, Wechsler LR, eds. *Imaging Cerebrovascular Disease*, Philadelphia: Butterworth-Heinemann, 2003,173-188.

3. Gupta R, Horowitz M, **Jovin TG**. Hemodynamic instability after carotid artery angioplasty and stent placement: a review of the literature. *Neurosurg Focus* 2005 Jan 15;18(1):e6.
4. **Jovin TG**, Wechsler LR, Gupta R, Yonas H. Xenon-Computed Tomography-Cerebral Blood Flow Assessment of ischemic penumbra in Acute Stroke. In Donnan GA, Baron JC, Davis SM, Sharp FR eds. The Ischemic Penumbra, New York: Informa Healthcare USA, 2007, 207-218.
5. Gupta R, **Jovin TG**, Krieger DW. Therapeutic hypothermia for stroke: do new outfits change an old friend? *Expert Rev Neurother* 2005 Mar;5(2):235-46.
6. Gupta R, **Jovin TG**, Yonas H. Xenon CT cerebral blood flow in acute stroke. *Neuroimaging Clin N Am* 2005 Aug;15(3):531-42.
7. Vora N, **Jovin T**, Kondziolka D. Cell transplantation for ischemic stroke. *Neurodegener Dis.* 2006;3(1-2):101-5.
8. Gupta R, **Jovin TG**. Endovascular management of acute ischemic stroke: advances in patient and treatment selection. *Expert Rev Neurother* 2007 Feb; 7(2):143-53.
9. **Jovin TG**, Gupta R, Horowitz MB. Management of symptomatic intracranial atherosclerotic disease. *Curr Cardiol Rep* 2007 Mar;9(1):32-40.
10. **Jovin TG**, Demchuk A., Gupta R. Pathophysiology of acute ischemic stroke. *Continuum* 2008 14(6)Acute Ischemic Stroke:28-45.
11. Khatri P, Levine J, **Jovin T**. Intravenous thrombolytic therapy for acute ischemic stroke. *Continuum* 2008 14(6)Acute Ischemic Stroke:46-60.
12. Barrett K, Khatri P, **Jovin TG**. Complications of ischemic stroke: Prevention and Management. *Continuum* 2008 14(6)Acute Ischemic Stroke:61-79.
13. Tomsick TA, Khatri P, **Jovin T**, Demaerschalk B, Malisch T, Demchuk A, Hill, MD, Jauch E, Spilker J, Broderick JP; IMS III Executive Committee. Equipoise among recanalization strategies. *Neurology*.2010 Mar 30;74(13):1069-76.
14. Gupta R, **Jovin TG**, Yavagal D, Abou-Chebl A. Carotid Endarterectomy vs. Carotid Stenting: Fairly Comparable or Unfairly Compared? *Front Neurol*. 2010 Jul 16;1:14.
15. Jadhav AP, **Jovin TG.**, Vascular imaging of the head and neck. *Semin Neurol*. 2012 September; 32(4):401-10.
16. Hammer MD, **Jovin TG**. Temperature Management in Acute Stroke. In Geyer JD, Gomez CR, eds. Stroke A Practical Approach, Philadelphia: Lippincott Williams & Wilkins, 2009, 295-300.
17. **Jovin, T.G.** Management of hemorrhage stroke. In Samuels M. Video Textbook or Neurology for the Practicing Physician. Butterworth-Heinemann 2011.
18. Qureshi, A, I., Abou-Chebl, A. ,**Jovin, T.G.** Qualification requirements for performing endovascular procedures. Qureshi, A.I., and Georgiadis, A., eds. Textbook of Interventional Neurology. Cambridge University Press 2011.
19. Jadhav AP, Jovin TG Intra-arterial reperfusion strategies in acute ischemic stroke. *J Neurointerv Surg*. 2013 May;5 Suppl 1:i66-9
20. Yoo AJ, Leslie-Mazwi TM, Jovin TG. Future directions in IAT: better studies, better selection, better timing and better techniques. *J Neurointerv Surg*. 2013 May;5 Suppl 1:i1-6.
21. Subarachnoid Hemorrhage, Aneurysms, and Vascular Malformations. In Caplan

- LR. Caplan's Stroke. Cambridge University Press 2015
22. Jadhav AP, Ares WJ, **Jovin TG**, Jankowitz BT, Ducruet AF. Acute Surgical and Endovascular Management of Ischemic/Hemorrhagic Stroke in Winn RH (ed) Youman's Neurological Surgery, Elsevier Philadelphia, 2015
  23. Aghaebrahim A, **Jovin TG** Endovascular Management of diseases in Relation to Otolaryngology. In Snyderman C, Pant H "Otolaryngology Clinics of North America"- Hemostasis in Head and Neck Surgery". Elsevier 2016 (in press)
  24. Kenmuir CL, **Jovin TG**. Chapter 4: Acute Ischemic Stroke. In B Molyneaux (Ed.), Neurocritical Care – Pittsburgh Critical Care Medicine Series. 2016. In Press.
  25. Panczykowski D, **Jovin TG**. Surgical and Endovascular Management of Vertebrobasilar Atherosclerosis. In Caplan/Primer on Cerebrovascular Diseases, Second Edition. Elsevier 2016
  26. Benjamin K. Hendricks, Ashutosh P. Jadhav, William J. Ares, Tudor G. Jovin, Brian T. Jankowitz and Andrew F. Ducruet. Acute Surgical and Endovascular Management of Ischemic and Hemorrhagic Stroke. Youmans and Winn Neurological Surgery, 8th Edition. 2/9/2022.

### **Published Abstracts**

1. **Jovin TG**, Yonas H, Nemoto EM, Ott MB, Gebel JM, Goldstein S, and Wechsler LR. The ischemic core follows a predictable time course in acute middle cerebral artery infarction. *Neurology* 2001 Apr;56(8):A369-A370 Suppl 3.
2. **Jovin T**, Zivkovic S, Goldstein S, Wechsler LR, Gebel JM. High titers of CA 125 in association with recurrent cerebral ischemic events in patients with underlying malignancy. *J Stroke Cerebrovasc Dis* 2001 Jul-Aug;10(4):198.
3. **Jovin TG**, Goldstein S, Gebel JM, Wechsler LR, Ott MB, Yonas, H. Patterns of core and penumbra in acute M1 occlusion and their clinical correlates. *Stroke* 2001 Jan;32(1):P51.
4. **Jovin TG**, Gebel JM, Wechsler LR, Goldstein S, Chang YF, Yonas H. Penumbra is consistently present and relatively constant in acute middle cerebral artery (MCA) occlusion. *Stroke* 2002 Jan;33(1):P39.
5. **Jovin TG**, Yonas H, Gebel JM, Jungreis CA, Horowitz MB, Goldstein S, Wechsler LR. In thrombolysis treated MCA occlusion, the extent of ischemic core predicts the development of life-threatening hemorrhage or edema in conjunction with vessel recanalization. *Neurology* 2002 Apr;58(7):A76 Suppl 3.
6. **Jovin TG**, Grahovac SZ, Kanal E, Yonas H, Gebel JM, Hammer MD, Wechsler LR. Early ischemic changes on head CT in acute stroke: predictive value for infarction and correlation with regional cerebral blood flow. *Stroke* 2003 Jan;34(1):254.
7. **Jovin TG**, Gebel JM, Yonas H, Horowitz MB, Jungreis CA, Grahovac SZ, Wechsler LR. Pretreatment ipsilateral regional cortical blood flow influences vessel recanalization in intra-arterial thrombolysis for MCA occlusion. *Stroke* 2003 Jan;34(1):280.

8. Nemoto EM, Yonas H, Kuwabara H, Pindzola R, Sashin D, Chang Y, **Jovin T**, Gebel J, Hammer M. Cerebral ischemic transitions on occlusive vascular disease revealed by CVR and OEF. *J Cereb Blood Flow Metab* 2003;23:701 Suppl 1.
9. **Jovin TG**, Yonas H, Hammer MD, Wechsler LR, Shelchikov E, Gebel JM, Horowitz MB, Levy EI, Jungreis CA. Extracranial-intracranial bypass for evolving cerebral ischemia in patients selected by neuroimaging: a novel indication for an old operation. *J Neurosurg* 2004 Jan;100(1):A192.
10. Iacob T, **Jovin TG**, Mendez OE, Shelchikov E, Hammer MD, Gebel J, Wechsler L, Yonas H. Gradual neurological deterioration due to slow progression of cerebral ischemia is prevalent in stroke due to large vessel occlusion. *Stroke* 2004 Jan;35(1):339.
11. Nemoto EM, Yonas H, Kuwabara H, Pindzola R, Sashin D, **Jovin T**, Chang YF, Hammer MD, Wechsler L. Hemodynamic compromise in occlusive vascular disease by PET OEF with acetazolamide. *Stroke* 2004 Jan;35(1):269-270.
12. Tayal AH, Shelchikov E, **Jovin T**, Hammer M, Wechsler LR, Yonas H, Gebel JM. Lack of perihematomal ischemia by quantitative cerebral flow measurement in patients with acute spontaneous intracerebral hemorrhage. *Stroke* 2004 Jan;35(1):333-334.
13. Gebel JM, Tayal AH, Shelchikov E, **Jovin TG**, Hammer MD, Wechsler LR, Yonas H. Perihematomal blood flow predicts functional outcome in patients with spontaneous intracerebral hemorrhage. *Stroke* 2004 Jan;35(1):331.
14. Chimowitz M, Lynn M, Howlett-Smith H, Stern B, Hertzberg VS, Frankel M, Chaturvedi S, Kasner S, Benesch C, Sila C, **Jovin T**, Romano J, Levine SR. The WASID trial investigators. Warfarin-aspirin symptomatic intracranial disease (WASID) trial: final results. *Stroke* 2004 Jan;35(1):235.
15. Rogers JC, Desai K, **Jovin T**, Holm MB. Cross-sectional performance-based functional outcomes of patients receiving and not receiving IV-tPA. *Circulation* 2004 May;109(20):E238.
16. **Jovin TG**, Yonas H, Hammer M, Uchino K, Gupta R, Gebel JM, Wechsler L. Carotid plaque morphological features determine symptomatic status in high-grade carotid stenosis. *Stroke* 2005 Feb;36(2):516.
17. Snyder JV, Clark RS, Yonas H, Zhang XP, Garman R, Crumbley A, Brebnor F, **Jovin T**, Gebel J, Hammer M, Pottersnak K, Graham SH. Altered expression of apoptosis-related genes in acute human stroke. *Stroke* 2005 Feb;36(2):474.
18. Lynn M, Chimowitz M, Howlett-Smith H, Frankel M, Hertzberg V, Chaturvedi S, Kasner S, Levine S, Stern B, Benesch C, **Jovin T**, Sila C, Romano J. The WASID trial investigators. Warfarin vs. aspirin for symptomatic intracranial stenosis: subgroup analyses from WASID. *Stroke* 2005 Feb;36(2):457.
19. Gupta R, Yi HJ, **Jovin TG**, Tayal AH, Genevro J, Horowitz MB. Initial experience with the use of intravenous eptifibatide bolus during endovascular treatment of intracranial aneurysms. *Stroke* 2006 Feb;37(2):735.
20. Gupta R, Vora N, Horowitz MB, Tayal AH, Uchino K, Hammer MD, Wechsler LR, **Jovin TG**. Multimodal reperfusion therapy for acute ischemic stroke: factors predicting vessel recanalization. *Neurosurgery* Feb;58(2):398-399.
21. Gupta R, Uchino K, Horowitz MB, Jungreis C, Wechsler L, Hammer MD, Tayal AH, **Jovin TG**. Emergent stenting of extra-cranial internal carotid artery

- occlusion in acute stroke has a high revascularization rate. *Neurosurgery* 2006 Feb;58(2):402.
22. Vora N, Gupta R, Hammer M, Uchino K, Tayal A, Wechsler L, Horowitz M, **Jovin T**. Multimodal reperfusion therapy for acute ischemic stroke: factors predicting vessel recanalization. *Stroke* 2006 Feb;37(2):657.
  23. Tayal A, Uchino K, Gupta R, Kromer H, Vora N, **Jovin T**, Wechsler L, Hammer M. MRI in deep nuclear intracerebral hemorrhage is overutilized and has low yield. *Stroke* 2006 Feb;37(2):675.
  24. Vora NA, Gupta R, Tayal AH, Hammer MD, Uchino K, Wechsler LR, Horowitz M, **Jovin TG**. Risk factors for intracerebral hemorrhage from multimodal treatment of acute ischemic stroke. *Neurology* 2006 Mar;66(5):301 Suppl 2.
  25. Tayal AH, Gupta R, Yonas H, **Jovin T**, Uchino K, Hammer M, Wechsler L, Gebel JM. Quantitative perihematoma blood flow in spontaneous intracerebral hemorrhage predicts in-hospital functional outcome. *Stroke* 2007;38:319.
  26. Jumaa M, Massaro L, Vora N, Reddy V, Wechsler L, **Jovin T**, Hammer M, Uchino K. Clinical predictors of large vessel stenosis in patients with transient ischemic attack. *Stroke* 2007 Feb;38(2):525.
  27. Vora N, Lin R, Thomas A, Zaidi S, Reddy V, Uchino K, Hammer M, Wechsler L, Horowitz M, **Jovin T**. CT perfusion cerebral blood volume can be used to predict anatomic collaterals in acute stroke patients receiving endovascular therapy. *Stroke* 2008 Feb;39(2):585.
  28. Vora N, Lin R, Thomas A, Gupta R, Zaidi S, Reddy V, Hammer M, Uchino K, Wechsler L, Horowitz M, **Jovin T**. Staged versus single stage treatment of intracranial aneurysm using neuroform stent. *Stroke* 2008 Feb;39(2):605.
  29. Jumaa MA, Popescu A, Vora NA, Thomas A, Reddy V, Zaidi SF, Lin R, Hammer MD, Wechsler LR, **Jovin TG**, Horowitz MB, Tsay J, Uchino K. Utility of CT angiography and MR angiography in evaluation of vertebral artery origin stenosis. *Stroke* 2008 Feb;39(2):585.
  30. Vora N, Lin R, Thomas A, Gupta R, Zaidi S, Reddy V, Hammer M, Uchino K, Wechsler L, Horowitz M, **Jovin T**. Combined extracranial and intracranial interventions as a revascularization strategy for anterior circulation tandem occlusions. *Stroke* 2008 Feb;39(2):605.
  31. Lin R, Vora N, Zaidi S, Thomas A, Horowitz M, Gupta R, Kim S, Hammer M, Uchino K, Wechsler LR, **Jovin T**. Mechanical approaches combined with intraarterial pharmacological therapy are superior to either intervention alone in revascularization of acute carotid terminus occlusion. *Stroke* 2008 Feb;39(2):598.
  32. Popescu A, Jumaa M, **Jovin T**, Uchino K. A pilot study of perfusion CT imaging in seizure. *Neurology* 2008 Mar;70(11):A26 Suppl 1.
  33. Bhatt A, Vora N, Thomas A, Majid A, Kassab MY, Hammer M, Uchino K, Wechsler L, **Jovin T**, Gupta R. Lower pre-treatment cerebral blood volume values are associated with higher rates of intracranial hemorrhage in endovascular acute stroke interventions. *Neurology* 2008 Mar;70(11):A414 Suppl 1.
  34. Lutsep HL, **Jovin TG**. Early ischemic changes may be associated with symptomatic hemorrhage in multi MERCI. *Stroke* 2008 Feb;39(2):599.
  35. Zaidi, S., R. Lin, N. Vora, K. Uchino, M. Hammer, L. Wechsler, A. Aleu, T. **Jovin TG**. Intra-arterial Treatment for Acute Anterior Circulation Ischemic

- Strokes Due to Large Vessel Occlusion Beyond 8 Hours – Preliminary Results. European Stroke Conference. 13-16 May. 2008Nice, France.
36. Hussain MS, Lin R, Moskowitz S, Bain M, Gonugunta V, **Jovin T**, Rasmussen P, Masaryk TJ, Horowitz M, Gupta R. Treatment of delayed re-occlusion after initial successful revascularization in acute ischemic stroke. *Stroke* 2009 Apr;40(4):E245.
  37. Kobayashi K, Lin R, Aleu A, Vora N, **Jovin TG**, Uchino K. Impact of age on clinical outcome in intra-arterial acute stroke therapy. *Stroke* 2009 Apr;40(4):E121.
  38. Hussain MS, Lin R, Bain M, Gonugunta V, **Jovin T**, Moskowitz S, Horowitz M, Masaryk TJ, Rasmussen P, Gupta R. Endovascular treatment of carotid embolic occlusion is associated with a higher rate of recanalization when compared to cardioembolic occlusions. *Stroke* 2009 Apr;40(4):E151.
  39. Jumaa MA, Zhang F, Kobayashi K, **Jovin T**, Uchino K. Early re-occlusion of the middle cerebral artery after successful complete intra-arterial revascularization. *Stroke* Apr;40(4):E248.
  40. Zaidi SF, Jumaa M, Reddy V, Uchino K, Hammer M, Wechsler L, Aleu A, Jankowitz B, Vora N, Gupta R, Horowitz M, **Jovin T**. Successful endovascular revascularization after an acute ischemic stroke decreases the final infarct burden. *Stroke* 2009 Apr;40(4):E246.
  41. Jumaa MA, Delfyett W, Zhang F, Kobayashi K, Vora NA, Aleu A, Zaidi SF, Reddy V, **Jovin T**, Uchino K. Comparison between non-contrast CT and CT perfusion for prediction of radiographic outcome after successful complete revascularization. *Stroke* 2009 Apr;40(4):E248-E249.
  42. Uchino K, Lin R, Zaidi SF, Kuwabara H, Sashin D, Reddy V, **Jovin TG**, Vora N, Jumaa M, Massaro L, Billigen J, Nemoto EM. Increased cerebral oxygen metabolism with metabolic syndrome associated risk factors. *Stroke* 2009 Apr;40(4):E188.
  43. **Jovin TG**, Jumaa MA, Zhang F, Gupta R, Zaidi SF, Lin R, Aleu A, Vora NA, Reddy V, Hammer MD, Wechsler LR, Uchino K. Comparison of safety, radiographic and clinical outcome of intra-arterial thrombolysis under conscious sedation versus pre-procedural intubation. *Stroke* 2009 Apr;40(4):E251.
  44. Jumaa MA, Lin R, Aleu A, Zaidi SF, Uchino K, **Jovin TG**. Predictors of clinical and radiographic outcome in acute stroke patients treated with intra-arterial therapy who achieve complete recanalization. *Neurology* 2009 Mar;72(11):A2 Suppl 3.
  45. **Jovin TG**, Gupta R, Liebeskind DS, Rai A, Janjua N, Yavagal D, Nogueira R. UCLA Endovasc Therapy Invest. Imaging based intraarterial treatment for acute anterior circulation ischemic stroke due to intracranial large vessel occlusion beyond 8 hours from symptoms onset multicenter experience. *Neurology* 2009 Mar;72(11):A2 Suppl 3.
  46. Hussain, M.S., Lin, R., Bain, M., Gonugunta, V., Jovin, T.G., Moskowitz, S., Horowitz, M., Masaryk, T.J., Rasmussen, P., Gupta, R. Endovascular Treatment or Carotid Embolic Occlusion is Associated with a Higher Rate of Recanalization when Compared to Cardioembolic Occlusions. *Stroke* 2009. Apr; 40(4):151

47. Hussian, M.S., Lin, R., Bain, Gonugunta, V., Jovin, T.G., Moskowitz, S., Horowitz, Masrayk, T.J., Horowitz, M., Gupta, R. Treatment of Re-Occlusion after Initial Successful Revascularization in Acute Ischemic Stroke. *Stroke* 2009 Apr;40(4): 245
48. Zaidi, S.F., Jumaa, M., Reddy, V., Uchino, K., Hammer, M., Wechsler, L., Aleu, A., Jankowitz, B., Vora, N., Gupta, R., Horowitz, M., Jovin, T.G. Successful Endovascular Revascularization After an Acute Ischemic Stroke Decreases the Final Infarct Burden. *Stroke* 2009 Apr; 40(4): 246
49. Jumaa, M.A., Zhang, F., Kobayashi, K., Jovin, T.G., Uchino, K. Early Re-Occlusion of Middle Cerebral Artery after Successful Complete Intra-Arterial Revascularization. *Stroke* 2009 Apr; 40(4)
50. Jumaa, M., Delfyett, W., Zhang, F., Kobayashi, K., Jovin, T.G., Vora, N. A., Aleu, A., Zaidi, S.F., Reddy, V., Uchino, K. Comparison Between Non-Contrast CT and CT Perfusion for Prediction of Radiographic Outcome After Successful Complete Revascularization. *Stroke* 2009 Apr; 40(4): 248-249
51. Tung, C., Hoffman, N., Jovin, T.G., Kormos, R., Jumaa, M. Stroke in Patients with a Left Ventricular Assist Device: One Institution's Experience. *Neurology* 2010 Mar 2; 74(9); 498.
52. Nogueira, R.G., Smith, W.S, Jovin, T.G., Liebeskind, D.S., Budzik, R.F., Baxter, B., Rymer, M.M., Thrombectomy for Acute Ischemic Stroke Patients Aged 80 Years or Older: Long-term Outcomes in 178 Patients. *Stroke* 2010 Apr; 41(4):227-228
53. Nogueira, R.G., Gupta, R., Liebeskind, D.S., Rymer, M.M., Berreto, A.D., Levy, E.I., Zaidat, O.O., Rai, A., Baxter, B., Jovin, T.G. Neither Time to Treatment Nor the Use of Adjunctive Intra- Arterial Thrombolytics Increase the Risk for Symptomatic Intracranial Hemorrhage After Endovascular Treatment of CT Perfusion or MRI- selected Stroke Patients Treated at Late Time Windows: Analysis of the Pre-DAWN Dataset. *Stroke* 2010 Apr; 41(4); 227.
54. Kidwell, C.S., Schaewe, T.J., Schreier, J. F., Jumaa, M., Hom, J., Jahan, R., Gornbein, J., Alger, J., Saver, J.L., Jovin, T.G., Wintermark, M. A Multivariate Predictive CT Model of Penumbra vs. Core Infarction for Acute Ischemic Stroke. *Stroke* 2010 Apr; 41(4); 274.
55. Hussain MS, Lin R, Moskowitz S, Bain M, Gonugunta V, **Jovin T**, Rasmussen P, Masaryk TJ, Horowitz M, Gupta R. Treatment of Delayed Re-Occlusion after Initial Successful Revascularization in Acute Ischemic Stroke. *Stroke* 2009 Apr; 40(4): 245
56. Zaidi SF, Jumaa M, Reddy V, Uchino K, Hammer M, Wechsler L, Aleu A, Jankowitz B, Vora N, Gupta R, Horowitz M, **Jovin T**. Successful Endovascular Revascularization After An Acute Ischemic Stroke Decreases The Final Infarct Burden. *Stroke* 2009 Apr; 40(4): 246
57. Jumaa MA, Delfyett W, Zhang F, Kobayashi K, Vora NA, Aleu A, Zaidi SF, Reddy V, **Jovin T**, Uchino K. Comparison Between Non-Contrast CT and CT Perfusion For Prediction of Radiographic Outcome After Successful Complete Revascularization. *Stroke* 2009 Apr; 40(4): 248-249
58. Jankowitz BT, Vora N, **Jovin T**, Horowitz M. Ear Necrosis Resulting from the Endovascular Onyx-18 embolization of a dural arteriovenous fistula fed by the

- posterior auricular artery. J. Neuroimaging. 2009 Jul;19(3):259-62. Epub 2008 Nov 3.
59. Tung C, Hoffman N , **Jovin T**, Kormos R, Jumaa M. Stroke in Patients with a Left Ventricular Assist Device: One Institution's Experience. Neurology 2010 Mar 2; 74(9); 498.
  60. Nogueira RG, Gupta R, Liebeskind DS, Rymer MM, Barreto AD, Levy EI, Zaidat OO, Rai A, Baxter B, **Jovin T**. Neither Time to Treatment Nor the Use of Adjunctive Intra-arterial Thrombolytics Increase the Risk for Symptomatic Intracranial Hemorrhage After Endovascular Treatment of CT Perfusion or MRI-selected Stroke Patients Treated at Late Time Windows: Analysis of the Pre-DAWN Dataset. Stroke 2010 Apr; 41(4); 227.
  61. Nogueira RG, Smith WS, **Jovin T**, Liebeskind DS, Budzik RF, Baxter B, Rymer MM. Thrombectomy for Acute Ischemic Stroke Patients Aged 80 Years or Older: Long-term Outcomes in 178 Patients. Stroke 2010 Apr; 41(4); 227-228.
  62. Kidwell CS, Schaewe TJ, Schreier JF, Jumaa M, Hom J, Jahan R, Gornbein J, Alger J, Saver JL, **Jovin T**, Wintermark M. A Multivariate Predictive CT Model of Penumbra vs. Core Infarction for Acute Ischemic Stroke. Stroke 2010 Apr; 41(4); 274.
  63. Nogueira RG, Smith WS, **Jovin TG**, Liebeskind DS, Budzik RF, Baxter B, Rymer MM. Thrombectomy for Acute Ischemic Stroke Patients Aged 80 Years or Older: Long-term Outcomes in 178 Patients. Stroke 2010 Apr; 41(4):227-228
  64. Hussain MS, Lin R , Bain M , Gonugunta V, **Jovin TG**, Moskowitz S, Horowitz M, Masaryk TJ, Rasmussen P, Gupta R. Endovascular Treatment of Carotid Embolic Occlusion is Associated with a Higher Rate of Recanalization when Compared to Cardioembolic Occlusions. Stroke 2009Apr; 40(4): 151
  65. Zaidat OO, Kalia JS, Lochen MD, Furlan A, Jaradeh S, Kaufman D, Kaminski H, Kase C, Wechsler L , Yavagal D, **Jovin T**, Gupta R, Biller J. Chairmen Perspective on Current State of Vascular and Interventional Neurology. Neurology 2010 Mar 2; 74(9); 26.
  66. Jankowitz, B., Lin, R., Zaidi, S.F., Jumaa, M.A., Hammer, M., Wechsler, L.R., Horowitz, M., **Jovin, T.G.** Intra-arterial Thrombolysis Initiated Greater than 24 Hours after Stroke Onset. UNIVERSITY OF PITTSBURGH, Pittsburgh, PA. *Stroke* Vol 42, No 3 March 2011, e232
  67. Zaidi, S.F., Aghaebrahim, A., Jumaa, M.A., , Spataru, O.V., Hammer, M., Reddy V.K., Wechsler, L.R., Horowitz, M., **Jovin, T.G.**; Utility Of Final Infarct Volume As Predictor Of Functional Outcome After Endovascular Stroke Treatment. *Stroke* Vol 42, No 3 March 2011,e236
  68. Spataru, O.V., **Jovin, T.G.**, Wechsler, L.R., Horowitz, M., Malik, A., Lin, R., Jumaa, M.A., Aitziber, A., Zaidi, S.F. Manual Aspiration Thrombectomy, A Novel Approach To Endovascular Therapy For Acute Stroke UPMC, *Stroke* Vol 42, No 3 March 2011, e230
  69. Zaidi, S.F., Jumaa, M.A., Hammer, M., Reddy, V.K., **Jovin, T.G.**, Massaro, L., Uchino, K., Lin, R., Wechsler, L.R. Telestroke Guided IV tPa Treatment Achieves Similar Clinical Outcome As Thrombolysis At Comprehensive Stroke Center. *Stroke* Vol 42, No 3 March 2011, e259
  70. Kitchener, J., Jumaa, M.A., Kale, S., Alshekhlee, A., Kaushal, R., Chaisam, T.,

- Chibnall, J., Acharya, A., Piriyaawat, P., Feen, Eli., Cruz-Flores, S., Callison, C., after Intra-arterial Thrombolysis. Saint Louis University, Saint Louis, MO. Stroke Vol 42, No 3 March 2011, e315
71. Aleu, A., Lin, R., Millan, M., Zaidi, S.F., Perez de la Ossa, N., Jumaa, M.A., Domenech, S., Malik, A., Castan, C., Guerrero, C., Roquer, J., Serena, J., Davalos, A., **Jovin, T.G.** Anterior Circulation Large Vessel Occlusion Stroke Presenting With Mild Symptoms. Clinical Outcomes And Safety Of Intravenous Thrombolysis And Endovascular Treatment. Stroke Vol 42, No 3 March 2011, e318.
  72. Malik, A.M., Vora, N.A., Lin, R., Zaidi, S.F., Jumaa, M.A., Aleu, A., Jankowitz, B.T., Reddy, V.K., Hammer, M., Wechsler, L.R., Horowitz, M., **Jovin, T.G.** Facilitated Recanalization Observed During Endovascular Treatment of Tandem Extracranial Carotid and Intracranial Occlusions: Incidence and Clinical Outcomes Stroke Vol 42, No 3 March 2011, e318.
  73. Spataru, O., Zaidi, S.F., Jumaa, M.A., Lin, R., Wechsler, L.R., Horowitz, M., Jankowitz, B.T., Aghaebrahim, A., Hammer, M., Reddy, V.K., **Jovin, T.G.** Thrombolysis In Cerebral Ischemia/tici Vs. Thrombolysis In Myocardial Ischemia/ Timi Scores As Assessment Tool For Recanalization In Endovascular Therapy For Acute Stroke Due To M1 Mca Occlusion. Stroke Vol 42, No 3 March 2011, e322.
  74. Wong, C.T., Spataru, O., Lepere, D., **Jovin, T.G.**, Zaidi, S.F., Massaro, L., Hammer, M., Reddy, V.K., Wechsler, L.R., Jumaa, M.A. Risk Factors for Symptomatic Intracranial Hemorrhage After Intravenous Thrombolysis for Acute Stroke. Stroke Vol 42, No 3 March 2011, e138
  75. **Jovin, T.G.**, Devlin, T.G., Rymer, M. M., Budzik, R.F., Lutsep, H.L., Smith, Stenting Or Angioplasty For Acute Stroke Due To Occlusion Or High Grade Stenosis Of The Extracranial Internal Carotid Artery Accompanying Intracranial Occlusions (tandem Lesions) In The Merci Registry: Incidence, Safety Profile And Clinical Outcomes Stroke Vol 42, No 3 March 2011, e151
  76. Saver, J., Jahan, R., Clark, W., Levy, E., Budzik, R., **Jovin, T.G.**, Nogueria, R., Baxter, B., Solitaire TM FR With The Intention For Thrombectomy (SWIFT) Study for the SWIFT Investigators. Stroke Vol 42, No 3 March 2011
  77. Nogueira, R.G., Rymer, M.M., Smith, W.S., Lutsep, H., Walker, G., Liebeskind, D.S., Budzik, R., Devlin, T., **Jovin, T.G.** Endovascular Therapy for Acute Ischemic Stroke Due to Proximal Intracranial Anterior Circulation Occlusion Treated Beyond 8 Hours from Times Last Seen Well: A Subset Analysis of the Merci Registry. Stroke Vol 42, No 3 March 2011, e48
  78. Gupta, R., Ching-Cheng, E., Abou-Chebl, A., Zaidat, O., **Jovin, T.G.**, Hussain, M., Lin, R Malek, A., Hui, F., Jiang, W. Comparison of Balloon Mounted Stents to Self Expanding Stents in the treatment of Symptomatic Intracranial Atherosclerosis: Retrospective Multi-Center Experience. Stroke Vol 42, No 3 March 2011, e88
  79. Rymer, M.M., **Jovin, T.G.**, Budzik, R.F., Devlin, T.G., Lutsep, H.L., Smith, W.S. Interventional Acute Stroke Therapy with the Merci Retriever Embolectomy Device: Results from 1000 patients in a Open Label Prospective Multicenter Registry. Stroke Vol 42, No 3 March 2011

80. Aghaebrahim, A., **Jovin, T.G.**, Fitzsimmons, B.F., Zaidat, O.O., Gupta, R., Nogueira, R.G. Endovascular Recanalization of Complete Subacute to Chronic Atherosclerotic Occlusions of Intracranial Arteries. *Neurology*, Apr 2011.
81. Gupta, R., Horev, A., Wisco, D., Tayal, A., Miller, B., Terry, J., Gandhi, D., **Jovin, T.**, Hussain, M., Nguyen, T., Ludwig, B., Cronin, C., Tian, M., Sheth, K., Nogueira, R. CT Perfusion Increases Time to Reperfusion and May Not Enhance Patient Selection for Endovascular Reperfusion Therapies in Acute Ischemic Stroke. *Stroke Vol 43*, 2012.
82. Lutsep, H., **Jovin, T.**, Devlin, T., Budzik, R., Smith, W., Walker, G., Rymer, M. Are Procedural Characteristics Associated with Early Outcomes in Either Women or Men Revascularized in the Merci Registry? *Stroke*. 2012; 43
83. Jadhav, A. Jumaa, M., Zaidi, S., Salinas, C., Zhu, G., Lansberg, M., Straka, M., Bammer, R., Albers, G., Wintermark, M., Wechsler, L., **Jovin, T.** Correlation Between Diffusion-weighted Imaging (DWI) Lesion Volume And Alberta Stroke Program Early CT Score (ASPECTS) In Patients Undergoing Acute Stroke Intervention. *Stroke Vol 43*, 2012.
84. Aghaebrahim, A., Leiva-Salinas, C., Zaidi, S., Jumaa, M., Urra, X., Amorim, E., Zhu, G., Reddy, V., Hammer, M., Jankowitz, B., Wintermark, M., **Jovin, T.** Outcomes After Endovascular Treatment For Anterior Circulation Stroke Presenting Beyond 8 Hours Of Time Last Seen Well Do Not Differ In Wake-up Strokes Vs. Witnessed Onset Beyond 8 Hours. *Stroke Vol 43*, 2012.
85. Nanduri, S., Yenugadhati, V., Ku, A., **Jovin, T.** Natural History of first ever symptomatic Internal Carotid Artery Occlusion (ICAO). *Stroke Vol 43*, 2012.
86. Bodily, L., Jumaa, M., Zaidi, S., **Jovin, T.**, Jankowitz, B. Assessment of Manual Aspiration Therapy for the Treatment of Sinus Thrombosis. *Stroke Vol 43*, 2012.
87. Jadhav A., Zaidi, S., Jumaa, M., Reddy, V., Hammer, M., Wechsler, L., **Jovin, T.** Relationship Between Alberta Stroke Program Early CT Score (ASPECTS) And Outcomes In Intra-arterial Treatment Of Acute Ischemic Stroke. *Stroke Vol 43*, 2012.
88. Nogueira, R., **Jovin, T.**, Liebeskind, D., Souza, L., Hao, Q., Saver, J., Furie, K., Horev, A., Yoo, A., Vora, N., Lev, M., Gupta, R. Infarct Volume Thresholds for Prediction of Independent Functional Outcomes after Acute Ischemic Stroke. *Stroke. Stroke Vol 43*, 2012.
89. Albers, G., Straka, M., Kemp, M., Mlynash, M., **Jovin, T.**, Wechsler, L., Wilder, M., Lutsep, H., Keogh, B., Bernstein, R., Chang, C., Warach, S., Fazekas, F., Thai, D., Inoue, M., Tipirneni, A., Hamilton, S., Zaharchuk, G., Marks, M., Bammer, R., Lansberg, M. The DEFUSE 2 Investigators. Results of DEFUSE 2: Imaging Endpoints. *Stroke Vol 43*, 2012.
90. Mlynash, M., Lansberg, M., Straka, M., Kemp, S., Wechsler, L., **Jovin, T.**, Wilder, M., Lutsep, H., Czartoski, T., Bernstein, R., Chang, C., Warach, S., Fazekas, F., Thai, D., Inoue, M., Tipirneni, A., Hamilton, S., Zaharchuk, G., Marks, M., Bammer, R., Albers, G. The DEFUSE 2 Investigators. The Malignant MRI profile: Implications for Endovascular Therapy. *Stroke Vol 43*, 2012.
91. Lansberg, M., Kemp, S., Straka, M., Mlynash, M., Wechsler, L., **Jovin, T.**, Wilder, M., Lutsep, H., Czartoski, T., Bernstein, R., Chang, C., Warach, S., Fazekas, F., Thai, D., Inoue, M., Tipirneni, A., Hamilton, S., Zaharchuk, G.,

- Marks, M., Bammer, R., Albers, G. The DEFUSE 2 Investigators. Results of DEFUSE 2: Clinical Endpoints. *Stroke* Vol 43, 2012.
92. Gupta, R., Horev, A., Nguyen, T., Gershon, R., Gandhi, D., Wisco, D., Miller, B., Tayal, A., Ludwig, B., Hussain, M., Terry, J., **Jovin, T.**, Belagaje, S., Cronin, C., Tian, M., Anderson, A., Frankel, M., Sheth, K., Liebeskind, D., Nogueira, R. Higher Volume Endovascular Stroke Centers Have Decreased Times to Treatment. *Stroke* Vol 43, 2012.
  93. Marks, M., Lansberg, M., Straka, M., Kemp, S., Mlynash, M., **Jovin, T.**, Wechsler, L., Wilder, M., Lutsep, H., Keogh, B., Bernstein, R., Chang, C., Warach, S., Fazekas, F., Thai, D., Inoue, M., Tipirneni, A., Hamilton, S., Zaharchuk, G., Bammer, R., Albers, G. The DEFUSE 2 Investigators. Correlation of TICI Reperfusion with MR Reperfusion, Infarct Growth and Clinical Outcome in the DEFUSE 2 Trial. *Stroke* Vol 43, 2012.
  94. Starr, M., Zaidi, S., Jumaa, M., Reddy, V., Hammer, M., Jankowitz, B., Horowitz, M., Wechsler, L., **Jovin, T.** Treatment of Basilar Artery Occlusion Without Time Constraints: Clinical outcomes, safety and predictors of favorable results. *Stroke* Vol 43, 2012.
  95. Demel, S., Aghaebrahim, A., Reddy, V., Hammer, M., Massaro, L., Jumaa, M., **Jovin, T.**, Wechsler, L., Zaidi, S. Clinical Outcomes Following Endovascular Stroke Treatment Facilitated via Telestroke Evaluation. *Stroke* Vol 43, 2012.
  96. Koehler, S., Hammer, M., Reddy, V., Jumaa, M., Zaidi, S., **Jovin, T.** Length Of Hospitalization And Discharge Disposition Among Acute Ischemic Stroke Patients With Moderate To Severe Stroke by Treatment. *Stroke* Vol 43, 2012.
  97. Uchino K, Lin R, Zaidi SF, Kuwabara H, Sashin D, Bircher N, Chang YF, Hammer MD, Reddy V, **Jovin TG**, Vora N, Jumaa M, Massaro L, Billigen J, Boada F, Yonas H, Nemoto EM. Increased Cerebral Oxygen Metabolism and Ischemic Stress in Subjects with Metabolic Syndrome-Associated Risk Factors: Preliminary Observations. *Transl Stroke Res.* Sep, Vol 3, 2010.
  98. Jadhav AP, Zaidi S, Jumaa M, Reddy, V, Hammer M, Wechsler L, **Jovin T.** Relationship Between Alberta Stroke Program Early CT Score (ASPECTS) And Outcomes In Intra-arterial Treatment Of Acute Ischemic Stroke. *Stroke.* 2012; 43: A3873
  99. Jadhav AP, Jumaa M, Zaidi S, Salinas CK, Zhu G, Lansberg M, Straka M, Bammer R, Albers G, Wintermark M, Wechsler L, **Jovin T.** Correlation Between Diffusion-weighted Imaging (DWI) Lesion Volume And Alberta Stroke Program Early CT Score (ASPECTS) In Patients Undergoing Acute Stroke Intervention. *Stroke.* 2012; 43: A2546
  100. Amorim E, Polderman K, Jadhav AP, Grandhi R, Jankowitz B, Ortega-Gutierrez S, Wechsler L, **Jovin T**, Linares-Tapia G. Shivering Control in the Angiography Suite Is Feasible and Safe for Patients Undergoing Simultaneous Intra-Arterial Thrombectomy and Endovenous Hypothermia under Conscious Sedation. *Neurology* February 12, 2013; 80(Meeting Abstracts 1): P06.251
  101. Kenmuir C, Totoraitis R, **Jovin T**, Jadhav AP. Pseudo-Hyperdense Middle Cerebral Artery in HSV Encephalitis (P02.025). *Neurology* February 12, 2013; 80(Meeting Abstracts 1): P02.025

102. Jadhav AP, Nanduri S, Aghaebrahim A, Zaidi S, Jumaa M, Linares G, Reddy V, Hammer M, Jankowitz B, Wechsler L, **Jovin T**. Octogenarians Have High Rates Of Favorable Outcomes After Endovascular Therapy For Acute Stroke Due To M1 Occlusion If Final Infarct Volumes Are Small Stroke. 2013; 44: ATP6
103. Jadhav AP, Nanduri S, Starr M, Aghaebrahim N, Zaidi S, Jumaa M, Linares G, Reddy V, Hammer M, Jankowitz B, Wechsler L, **Jovin T**. Infarct Location And Volumes As Predictors Of Outcome After Endovascular Recanalization Of Basilar Artery Occlusion. Stroke. 2013; 44: ATMP1
104. Nanduri S, Jadhav AP, Zaidi S; Aghaebrahim A, Jumaa M, Hammer M, Reddy V, Linares G, Jankowitz B, Wechsler L, **Jovin T**. DWI ASPECT Scores And Infarct Volume As Predictors Of Outcome After Recanalization In Middle Cerebral Artery Stroke. Stroke. 2013; 44: AWMP1
105. Aghaebrahim N, Jadhav AP, Linares G, Zaidi S, Jumaa M, **Jovin TG**, Jankowitz B. Recanalization in Acute Stroke Interventions with Manual Aspiration Thrombectomy as a Stand Alone Technique. Stroke. 2013; 44: ATP18
106. Demel S, Aghaebrahim A, Jadhav AP, **Jovin T**, Klein A. Gender Differences In Intra-arterial Therapy. Stroke. 2013; 44: AWP18.
107. Horev A, Haber E, Borenstein NM, Koehler SA, Jadhav AP, **Jovin TG**, Linares G, Reddy VR. Does The Aspirin Response Test Help Determine Whether Patients Should Receive Platelet Transfusion After Intracerebral Hemorrhage? Stroke. 2013; 44: ATP294
108. Jumaa MA, Lin R, Zaidi SF, Linares G, Jadhav AP, Jankowitz BJ, **Jovin TG**. Conscious Sedation With Dexmedetomidine For Acute Stroke Patients Undergoing Intrarterial Therapy. Stroke. 2013; 44: AWP4
109. Zaidat O, Lazzaro M, Brown S, Nogueira R, Gupta R, **Jovin TG**, Siddiqui A, Yavagal D, Jahan R, Saver J, for the Swift Investigators. How Long is Too Long: The Effect of Thrombectomy Procedure Duration on Outcome in Revascularized SWIFT Trial Patients, Stroke, 2013;44:2
110. Urrea X; San Román L; **Jovin TG** The Healthy Octogenarian Profile (HOPE): A Simple Indicator of Elderly Stroke Patients that may Benefit from Endovascular Intervention Stroke, 2013;44:2
111. Linares G, Polderman KH, Wechsler LR, Ortega-Gutierrez S, Jankowitz BJ, Horowitz MB, Reddy Hammer MD, Jadhav AP, Grandhi R, Oakley J, Koehler SA, **Jovin TG**. Simultaneous Endovenous Hypothermia and Intra-Arterial Thrombectomy for Acute Ischemic Stroke is Safe, Feasible and Does Not Require General Anesthesia Stroke. 2013; 44: ATP14
112. **Jovin T**, Zaidi S, Aghaebrahim A, Urrea X, Jumaa M, Jankowitz B, Hammer M, Nogueira R, Horowitz M, Reddy V, Jadhav AP. Final Infarct Volume Is A Stronger Predictor Of Outcome Than Recanalization In Patients With Proximal Middle Cerebral Artery Occlusion Treated With Endovascular Therapy. Stroke. 2013; 44: AWMP12
113. Lutsep H, Nogueira RG, Gupta R, G **Jovin TG**, Albers GW, Walker GW, Liebeskind DL, Wade S for the TREVO 2 Investigators Stroke Severity and Revascularization are the Strongest Predictors of Outcome in Large Vessel Occlusion Strokes: Post-Hoc Analysis of the TREVO 2 Trial Stroke. 2013;44:

114. Liebeskind DL, R; Nogueira RG, **Jovin TG**, L Lutsep HL, Saver JL for the SWIFT Investigators Serial ASPECTS from Baseline to 24 Hours in SWIFT: A Novel Surrogate Endpoint for Revascularization in Acute Stroke, Stroke. 2013;44:Ribo M; Jankowitz BJ; Zaidi A; Jumaa M, Oakley O, Jovin TG Delayed Device Access to the Occluded Target Vessel Predicts Worse Recanalization Rates and Poor Outcomes in Endovascular Therapy for Acute Stroke. Stroke. 2013;44:
116. Kenmuir CL, Hammer M, **Jovin T**, Reddy V, Wechsler L, Jadhav AP. Predictors of Outcome in Patients Presenting with Acute Ischemic Stroke and Mild Stroke Scale Scores. Stroke. 2014;45:A141
117. Horev A, Romero DG, Jankowitz BT, Aghaebrahim A, Kenmuir CL, Jadhav AP, **Jovin TG**. Hyperdense MCA sign as an IA thrombectomy recanalization predictor. Stroke. 2014;45:
118. **Jovin TG**, Jankowitz BT, Jadhav AP. Reversed Ischemic Attack (RIA): Proposal For A New Terminology In The Era Of Thrombolytic Therapy. Stroke. 2014;45:
119. Jadhav AP, Starr M, Juuma M, Zaidi S, Hammer M, Reddy V, Jankowitz B, Wechsler L, **Jovin T**. Endovascular Thrombectomy In Non-intubated Patients For Basilar Artery Occlusive Disease Is Associated With Improved Outcomes. Stroke. 2014;45:
120. Aghaebrahim A, Rangaraju S, Streib C, Horev A, Jadhav A, **Jovin T**. Predictors of time from groin puncture to base line catheter. Stroke. 2014;45:
121. Aghaebrahim A, Rangaraju S, Streib C, Grandhi R, Campbell D, Reznik M, Jadhav A, **Jovin T**. Clinical outcomes and safety of endovascular therapy for IV tPA ineligible patients who present within the IV tPA time window. A single center experience. International Stroke Conference 2014 presentations Stroke. 2014;45:
122. Streib C, Aghaebrahim A, Rangarauju S, Jankowitz B, Amorim E, Paolini S, Wintermark M, Zhu G, Leiva-Salinas C, Jadhav A, **Jovin T**. Endovascular Treatment For Anterior Circulation Stroke Leads to Similar Outcomes in Very Early (within 3 hours) versus Selected Late (beyond 8 hours) Presenting Patients. Stroke. 2014;45:
123. Rangaraju S, Liggins J, Aghaebrahim A, Streib C, Sun J, Gupta R, Nogueira R, Frankel M, Mlynash M, Lansberg M, Albers G, Jadhav A, **Jovin T**. The Pittsburgh Outcomes after Stroke Thrombectomy (POST) Score predicts good outcomes after endovascular therapy for anterior circulation large vessel occlusions. Stroke. 2014;45:
124. Rangaraju S, Aghaebrahim A, Streib C, Sun C-H, Ribo M, Muchada M, Nogueira R, Frankel M, Gupta R, Jadhav AP, **Jovin TG**, Pittsburgh Response To Endovascular Therapy (PRE) Score Predicts Likelihood Of Benefit From Endovascular Therapy In Anterior Circulation Large Vessel Occlusions. Stroke. 2014;45:
125. Rangaraju S, Aghaebrahim A, Streib C, Jadhav AP, **Jovin TG**. TIC1 2B vs. TIC1 3: Differences in Infarct Volumes And Clinical Outcomes In Proximal Intracranial Large Vessel Occlusions Treated With Endovascular Therapy. Stroke. 2014;45:

126. Jankowitz BT, Horev A, Grandhi R, Aghaebrahim A, Jadhav A, Linares G, **Jovin T**. Primary Manual Aspiration Thrombectomy (MAT) for Acute Ischemic Stroke: Safety, Feasibility and Outcomes in 112 Consecutive Patients. *Stroke*. 2014;45:
127. Goyal M; Menon B; Fan L; Demchuk A; Yeatts Y; Tomsick T; Khatri P; Zaidat O, Jauch E; Jovin TG; Broderick JP Evaluation of Interval Times from Onset to Recanalization in Patients Undergoing Endovascular Therapy in the IMS III Trial *Stroke*. 2014;45:
128. Liebeskind DS; Scalzo F; Sanossian N; Gupta R; **Jovin TG**; Walker GA; Albers GW; Lutsep HL; Smith WS; Nogueira RG; for the TREVO2 Investigators Perfusion Angiography in TREVO2: Quantitative Reperfusion After Endovascular Therapy in Acute Stroke 2014;45:
129. Prabhakaran S; Sheth KN; Terry JB; Nogueira RG; Horev A; Nguyen TN; Gandhi D; Wisco D; Glenn BA; Tayal AH; Ludwig B; Hussain MS; **Jovin TG**; Clemmons PF; Cronin C; Tian M; Gupta R; Outcome Prediction After Endovascular Reperfusion Therapy For Acute Ischemic Stroke: The SNARL Score *Stroke* 2014;45:
130. Liebeskind DS; Tomsick TA; Yeatts S; Foster L; Carrozzella J; **Jovin TG**; Khatri P; Collaterals in the Interventional Management of Stroke (IMS) III Trial *Stroke* 2014;45:
131. Prabhakaran S; Sheth KN; Terry JB; Nogueira RG; Horev A; Nguyen TN; Gandhi D; Wisco D; Glenn BA; Tayal AH; Ludwig B; Hussain MS; **Jovin TG**; Clemmons PF; Cronin C; Tian M; Gupta R; Safety And Outcome After Endovascular Reperfusion Therapy In Elderly Patients With Acute Ischemic Stroke *Stroke* 2014;45:
132. Nogueira RG; Gupta R; **Jovin TG**; Levy EI; Liebeskind D; Zaidat O; Rai A; Hirsch J; Hsu D; Rymer MM; Tayal AH; Lin R; Kass-Hout O; Kasshout T; Natarajan SK; Nanda A; Tian M; Hao Q; Kalia JS; Chen M; Abou-Chebl L; Nguyen TN; Yoo A Predictors and Clinical Relevance of Hemorrhagic Transformation after Endovascular Therapy for Acute Ischemic Stroke: a Multicenter Retrospective Analysis of 1122 Patients *Stroke* 2014;45:
133. Zaidat O; Lazzaro MA; Brown S; Nogueira RG; Rishi Gupta; **Jovin TG**; Siddiqui A; Yavagal D; Clark W; Saver JL; For the SWIFT Investigators. Time from Symptoms Onset to Revascularization: Impact on Outcomes in Revascularized Swift Trial Patients *Stroke* 2014;45:
134. **Jovin TG**; Lutsep HL; Gupta R; Walker GA; Albers GW; Smith WS; Nogueira RG; for the TREVO2 Investigators Collateral Flow and ASPECTS of Infarct Evolution Dominate Time to Reperfusion in Outcomes of TREVO2 Liebeskind DS; Sanossian N; *Stroke* 2014;45:
135. McTaggart RA; **Jovin TG**; Lansberg MG; Mlynash M; Inoue M; Marks MP; Albers G; ASPECTS Performance in a Series of Patients Undergoing CT and MRI: Reader Agreement, Modality Agreement, and Outcome Prediction *Stroke* 2014;45:
136. Streib C, Rangaraju S, Jadhav A, **Jovin TG**. Implication of Deep Versus Cortical Ischemia on DWI-ASPECTS In Anterior Circulation Large Vessel Occlusion

- Ischemic Stroke. American Academy of Neurology Annual Meeting (2015, Washington DC).
137. Campbell D, Aghaebrahim A, **Jovin TG**, Jadhav AP. Digital Subtraction Angiography (DSA) Arch Run in Place of CT Vessel and Perfusion Imaging: Proof of Concept. American Academy of Neurology Annual Meeting (2015, Washington DC).
  138. Gulati D, Aghaebrahim A, **Jovin TG**, Jadhav AP. Endovascular management and outcome of acute middle cerebral artery stroke in the setting of spontaneous carotid dissection. American Academy of Neurology Annual Meeting (2015, Washington DC).
  139. Cambell DT, Rangaraju S, Streib C, Jadhav AP, **Jovin T**. Pittsburgh Outcomes After Stroke Thrombectomy Vertebrobasilar (POST VB) Score Predicts Outcomes After Endovascular Therapy for Basilar Artery Occlusions. International Stroke Conference (Nashville, USA, February 2015).
  140. Giurgiutiu DV, Jadhav AP, Aghaebrahim A, Jankowitz BT, Ducruet AF, **Jovin TG**. Good Outcomes After Endovascular Therapy For Ischemic Stroke In Octogenarians Are Consistently Present If Final Infarct Volume Is Less Than 20 Cubic Centimeters. International Stroke Conference (Nashville, USA, February 2015).
  141. Gulati D, Ducruet A, Aghaebrahim, Jankowitz, Jadhav A, **Jovin T**. Impact of Difference in Definitions of M1 and M2 segment of Middle Cerebral Artery on Acute Stroke Endovascular Therapy. International Stroke Conference (Nashville, USA, February 2015).
  142. Jadhav AP, Aghaebrahim N, Horev A, Giurgiutiu DV, Ducruet A, Jankowitz B, **Jovin T**. Stentriever Mediated Manual Aspiration Thrombectomy (SMAT) for Acute Ischemic Stroke in 93 Consecutive Patients. International Stroke Conference (Nashville, USA, February 2015).
  143. Abdelnour C, Rangaraju S, Streib C, Aghaebrahim N, Delfyett, **Jovin T**, Jadhav A. The Pittsburgh Collateral Ratio: A Novel Method To Assess Collateral Circulation Status In Acute MCA Occlusions. International Stroke Conference (Nashville, USA, February 2015).
  144. Rangaraju S, Streib C, Jadhav A, **Jovin TG**. Relationship Between Lesion Topology and Clinical Outcome In Anterior Circulation Large Vessel Occlusions. International Stroke Conference (Nashville, USA, February 2015).
  145. Rocha M, Delfyett WT, Aghaebrahim A, Jadhav A, **Jovin T**. Accuracy Of CT Angiography In The Localization Of Carotid Occlusion Sites In Acute Ischemic Stroke. International Stroke Conference (Nashville, USA, February 2015).
  146. Aghaebrahim A, Jadhav A, Kenmuir C, Giurgiutiu DV, Horev A, Saeed Y, Callaway C, Guyette F, Ducruet A, Jankowitz B, Pacella C, **Jovin T**. Systems wide Streamlining of Door to Recanalization Processes in Endovascular Stroke Therapy. International Stroke Conference (Nashville, USA, February 2015).
  147. Gulati D, Aghaebrahim A, Malik A, Ducruet A, Jankowitz B, **Jovin T**, Jadhav A. Incidence and Management of Intracranial Wire Perforation During Acute Stroke Endovascular Therapy. International Stroke Conference (Nashville, USA, February 2015).

148. Abdelnour C, Rangaraju S, Streib C, Aghaebrahim N, Delfyett, **Jovin T**, Jadhav A. Collateral Circulation Status Correlates With Aspects Decay During Inter-facility Transfer After Anterior Acute Ischemic Stroke Patients. International Stroke Conference (Nashville, USA, February 2015).
149. Shazly TA, Richards N, Jadhav A, **Jovin T**, Bonhomme GR. Venous Sinus Stenting For Treatment Of Increased Intracranial Pressure Secondary To Venous Sinus Stenosis. Nanos 2015 Annual Meeting (San Diego, CA)
150. Kenmuir CL, **Jovin TG**, Jankowitz BT, Ducruet AF, Gross B, Aghaebrahim A, Al-Bayati AR, Shorrah H, Jadhav AP. Outcomes with Transfer Directly to the Angiosuite for Acute Stroke Thrombectomy to Reduce Reperfusion Delay. Society of Vascular and Interventional Neurology Abstracts, 2016. \*Oral Platform
151. Rocha M, Aghaebrahim A, Jadhav A, **Jovin T**. Evaluation of Clinical and Radiographic Variables Related to False Positive Detection of Tandem Carotid Artery Occlusion on CT Angiography. International Stroke Conference (Los Angeles, USA, February 2016).
152. Kenmuir CL, Al-Bayati AR, Shorrah H, Aghaebrahim A, Ducruet AF, Jankowitz BT, **Jovin TG**, Jadhav AP. Rates of Successful First-Pass Recanalization During Thrombectomy for Acute Ischemic Stroke are Higher in the Absence of a Hyper-Dense Vessel Sign. International Stroke Conference (Los Angeles, USA, February 2016).
153. Shorrah H, Al-Bayati AR, Kenmuir CL, Aghaebrahim A, **Jovin TG**, Jadhav AP. Minor Stroke with Large Vessel Occlusion. International Stroke Conference (Los Angeles, USA, February 2016)
154. Shorrah H, Kenmuir CL, Al-Bayati AR, Aghaebrahim A, Hammer MD, Reddy VK, Starr MT, Wechsler LR, **Jovin TG**, Jadhav AP. The Role of Teleconsultation in Acute Stroke Trial Enrollment. International Stroke Conference (Los Angeles, USA, February 2016).
155. Al-Bayati AR, Kenmuir CL, Shorrah H, Aghaebrahim A, Hammer MD, Jadhav AP, **Jovin TG**, Reddy VR, Starr MT, Wechsler LR. Treatment times and Outcomes with Utilization of Telemedicine Prior to Transfer for Stroke Endovascular Therapy. International Stroke Conference (Los Angeles, USA, February 2016).
156. Haussen DC, Jadhav A, Rebello L, Belagaje S, **Jovin T**, Aghaebrahim A, Gulati D, Frankel M, Nogueira RG. S-Shaped Internal Carotid Artery Curve in Dissection-Related Acute Ischemic Stroke. International Stroke Conference (Los Angeles, USA, February 2016).
157. Jadhav AP, Bonafe A, Diener H, Mendes VP, Levy E, Baxter B, **Jovin T**, Jahan R, Menon BK, Saver JL, Goyal M. Correlation between clinical outcomes and baseline CT and CT angiography findings in the SWIFT Prime trial. European Stroke Organization Conference (Barcelona, Spain, May 2016).
158. Jadhav AP, Bouslama M, Aghaebrahim A, Rebello LC, Starr MT, Haussen DC, Ranganani M, Whalin MK, **Jovin T**, Nogueira RG. Monitored Anesthesia Care Versus Intubation for Vertebrobasilar Stroke Endovascular Therapy. European Stroke Organization Conference (Barcelona, Spain, May 2016).

159. Kenmuir C, **Jovin T**, Jankowitz B, Ducruet A, Gross B, Aghaebrahim A, Al-Bayati A, Shorrah H, Jadhav AP. Outcomes with Transfer Directly to the Angiosuite for Acute Stroke Thrombectomy to Reduce Reperfusion Delay. Society of Vascular and Interventional Neurology Annual Meeting (Brooklyn, USA, November 2016).
160. Al-Bayati A, Jadhav AP, Aghaebrahim A, Jankowitz B, Tay J, **Jovin T**. Impact of Detecting Symptomatic Extracranial Carotid Artery Disease Using Noninvasive Imaging Compared to Cerebral Angiography. Society of Vascular and Interventional Neurology Annual Meeting (Brooklyn, USA, November 2016).
161. Streib C, Rangaraju S, Jadhav A, **Jovin T**. Infarct Volume and Prolonged Intubation are Critical Determinants of Inpatient Rehabilitation Cost in Anterior Circulation Large Vessel Occlusion Stroke Patients. International Stroke Conference (Houston, USA, February 2017).
162. Laroia S, Romero C, Deveikis C, **Jovin T**, Jadhav A, Esper J, DeMatteis J. Be Fast – Redefined. International Stroke Conference (Houston, USA, February 2017).
163. Streib C, Rangaraju S, Winger DG, Campbell DT, Paolini S, Jankowitz B, Jadhav A, **Jovin T**. Final Infarct Volume is a Critical Determinant of Hospitalization Cost in Anterior Circulation Large Vessel Occlusion Stroke. International Stroke Conference (Houston, USA, February 2017).
164. Atchaneeyasakul K, Malik AM, Yavagal DR, Bouslama M, Haussen DC, Kenmuir CL, Jadhav AP, **Jovin TG**, Nogueira RG. Thrombectomy Outcomes in Acute Ischemic Stroke due to Middle Cerebral Artery M2 Occlusion with Stent-Retriever, Aspiration, MERCI: Multi-Center Experience. International Stroke Conference (Houston, USA, February 2017).
165. Bouslama M, Jadhav A, Haussen DC, Aghaebrahim A, Rebello LC, Starr MT, Grossberg JA, Ranginani M, Nogueira R, **Jovin T**. Predictors of Good Outcome after Endovascular Therapy for Acute Posterior Circulation Stroke. International Stroke Conference (Houston, USA, February 2017).
166. Malik AM, Atchaneeyasakul K, Kenmuir CL, Bouslama M, Khandelwal P, Jadhav AP, Haussen DC, Snelling B, Sur S, Guada L, Ramdas K, Chaturvedi S, Nogueira RG, **Jovin TG**, Yavagal D. Thrombectomy Outcomes in Acute Ischemic Stroke due to Middle Cerebral Artery M2 Occlusion with Stent-Retriever, Aspiration, and MERCI: Multi-Center Experience. International Stroke Conference Abstracts, 2017.
167. Steinberg A, Kenmuir C, **Jovin T**, Wechsler L, Jadhav A. Safety and Efficacy of Thrombolysis in Telestroke for the Extended Time Window. American Academy of Neurology Abstracts, 2017.
168. Kenmuir CL, Al-Bayati AR, Shorrah H, **Jovin TG**, Jankowitz BT, Ducruet AF, Jadhav AP. Rates of Successful First-Pass Recanalization During Thrombectomy for Acute Ischemic Stroke are Higher in the Absence of a Hyper-Dense Vessel Sign. International Stroke Conference Abstracts, 2016.
169. Al-Bayati A, Kenmuir CL, Shorrah H, Aghaebrahim A, Hammer M, Jadhav A, **Jovin T**, Reddy V, Starr M, Wechsler L. Treatment Times and Outcomes with

- Utilization of Telemedicine Prior to Transfer for Stroke Endovascular Therapy. International Stroke Conference Abstracts, 2016.
170. Shoriah H, Kenmuir CL, Al-Bayati A, Aghaebrahim A, **Jovin T**, Jadhav A. The Role of Teleconsultation on Acute Stroke Trial Enrollment. International Stroke Conference Abstracts, 2016.
  171. Shoriah H, Al-Bayati A, Kenmuir CL, Aghaebrahim A, **Jovin T**, Jadhav A. Minor Stroke with Large Vessel Occlusion. International Stroke Conference Abstracts, 2016.
  172. Goyal M, Jadhav AP, Bonafe A, Deiner H, Pereira V, Levy E, **Jovin T**, Jahan R, Menon B, Saver J. Analysis Of Workflow And Time To Treatment In The Swift Prime Randomized Controlled Trial. International Stroke Conference , Los Angeles, USA, February 2016.
  173. Desai SM, Morrow B, Martin-Gill C, Guyette FX, **Jovin TG**, Jadhav AP. Shorter Door-in to Door-out Time is Associated with Higher Likelihood of Endovascular Therapy. Society of Vascular and Interventional Neurology Annual Meeting (Boston, USA, November 2017).
  174. Parita B, Yoo AJ, Liebeskind DS, Jadhav AP, Haussen DC, Budzik RF, Bonafe A, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila C, Hasan A, Saver JL, **Jovin TG**, Nogueira RG. NCCT ASPECTS Modifies Intra-Arterial Treatment Effect in DAWN. Society of Vascular and Interventional Neurology Annual Meeting (Boston, USA, November 2017).
  175. Desai SM, Jadhav AP, **Jovin TG**. Eligibility for Endovascular Trial Enrollment in the 6-24 Hour Time Window: Analysis of a Single Comprehensive Stroke Center. Stroke. 2018;49:AWMP1
  176. Liebeskind DS, Bhuva P, Xiang B, Yoo AJ, Jadhav AP, Nogueira RG, Haussen DC, Budzik RF, Bonafe A, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila C, Hassan AE, Smith WS, Saver JL, **Jovin TG**. Serial Aspects in the Dawn Trial: Infarct Evolution and Clinical Impact. Stroke. 2018;49:AWMP15
  177. Aghaebrahim A, Aguilar-Salinas P, Santos R, Siddiqui AH, Levy EI, Shallwani H, Lopes D, Saied A, Kim SJ, Haussen DC, Nogueira RG, **Jovin TG**, Jadhav A, Kaustubh K, Turk AS, Spiotta AM, Turner RD, Brasiliense LB, Dumont T, Cherian J, Kan P, Sauvageau E, Hanel RA. Endovascular Recanalization of Intracranial Arterial Stenosis in Patients With Recurrent or Progressive Symptoms Despite Medical Management. Stroke. 2018;49:ATMP7
  178. Panczykowski DM, Jadhav AP, Jumaa MA, Aghaebrahim A, Ranginani M, Nguyen F, Grandhi R, Ducruet AF, Gross BA, Jankowitz BT, **Jovin TG**. Safety and Feasibility of Angioplasty and Stenting in Symptomatic Internal Carotid Artery Occlusive Disease. Stroke. 2018;49:AWP28
  179. Liebeskind DS, Zhang Y, Trieu H, Revanur A, Scalzo F, Veznedaroglu E, English J, Baxter BW, Ronald F Budzik, Bruno M Bartolini, Antonin Krajina, Ali Malek, Amrou Sarraj, Rishi Gupta, Jadhav AP, **Jovin TG**, Nogueira RG. Aspects versus Perfusion in the Trevo Retriever Registry: Defining the Core on the Largest Scale to Date. Stroke. 2018;49:A114
  180. Rocha M, Desai S, Jadhav A, **Jovin T**. Distribution and Incidence of Fast versus Slow Progressors of Infarct Growth in Large Vessel Occlusion Stroke. Stroke. 2018;49:ATP12.

181. Liebeskind DS, Xiang B, Jadhav AP, **Jovin TG**, Haussen DC, Budzik RF, Bonafe A, Bhuva P, Yavagal DR, Hanel RA, Ribo M, Cognard C, Sila C, Hassan AE, Smith WS, Saver JL, Nogueira RG. Collateral Circulation in Thrombectomy for Stroke Beyond 6 Hours: Dawn Collaterals. *Stroke*. 2018;49:A106
182. Mehta BP, Jadhav A, Sessa J, Katz R, Duong H, Lima A, DiMartini G, Woodall L, Antevy P, McTaggart R, Chandra RV, Leslie-Mazwi TM, Hirsch JA, Yoo AJ, **Jovin T**, Nogueira RG. Assessment of the Rapid Arterial occlusion Evaluation (RACE) Scale in Real-World Practice for Prediction of Large Vessel Occlusion and Reducing Time to Thrombectomy. *Stroke*. 2018;49:A96.
183. Nogueira RG, Haussen DC, Jadhav A, David S Liebeskind, Ronald F Budzik, Alain Bonafe, Parita Bhuva, Dileep R Yavagal, Ricardo A Hanel, Marc Ribo, Christophe Cognard, Cathy A Sila, Ameer E Hassan, Michael Frankel, Wade S Smith, Jeffrey L Saver and **Tudor G Jovin**. Time to Endovascular Treatment and Outcomes in the DAWN Trial. *Stroke*. 2018;49:A78.
184. Khatri P, **Jovin T**, Nogueira R, Albers GW, Jadhav A, Moomaw C, Alwell K, Khoury J, Heldner M, Urs F, Adeoye O, Flaherty M, Woo D, Ferioli S, Mackey J, Martini S, De Los Rios la Rosa F, Broderick J, Vagal A, Kissela B, Kleindorfer D. Endovascular Therapy Eligibility in the Advent of DAWN and DEFUSE-3 Results. *Stroke*. 2018;49:A82
185. Desai SM, **Jovin TG**, Jadhav AP. Laterality is an independent predictor of Endovascular Thrombectomy Eligibility in patients with Low NIHSS. AAN Annual Meeting, Los Angeles, LA, April 2018.
186. Desai SM, **Jovin TG**, Jadhav AP. Thrombectomy 6-24 hours after stroke in Trial Ineligible patients. ESOC Conference, Gothenburg, Sweden, May 2018.
187. Kunakorn Atchaneeyasakul, Shashvat Desai, Jay Dolia, Kavita Shah, Merritt Brown, Marcelo Rocha, Bradley Molyneaux, Matthew Starr, Jeffrey L Saver, **Tudor Jovin**, Ashutosh Jadhav Abstract 32: Intravenous Tpa Delays Door-to-puncture Time in Acute Ischemic Stroke With Large Vessel Occlusion Stroke. ;51:A32 February 2020
188. Katinka R van Kranendonk, Manon Kappelhof, Vicky Chalos, Kilian M Treurniet, Wim van Zwam, Robert J van Oostenbrugge, Hester F Lingsma, Diederik W Dippel, Aad van der Lugt, Peter J Mitchell, Michael D Hill, **Tudor G Jovin**, Antoni Davalos, Bruce C Campbell, Jeffrey L Saver, Phil White, Serge Bracad, Francis Guillemin, Andrew Demchuk, Scott Brown, Keith Muir, Yvo B Roos, Henk Marquering, Mayank Goyal, Charles B Majoie Abstract 75: Hemorrhagic Transformation After Acute Ischemic Stroke Due to a Large Vessel Occlusion is Associated With Less Treatment Benefit Stroke. ;51:A75 February 2020
189. Daniel Tonetti, Brian Jankowitz, Kenmuir Cynthia, Benjamin Zussman, Rahul Rao, Jeremy Stone, Paul Gardner, Robert Friedlander, Bradley Gross, Ashutosh Jadhav, **Tudor Jovin** Abstract TP135: Urgent Treatment for Symptomatic Carotid Stenosis: The Pittsburgh Revascularization and Treatment Emergently After Stroke Protocol Stroke. ;51:ATP135 February 2020
190. Shashvat M Desai, Guru Ramaiah, Waqas Haq, Kunakorn Atchaneeyasakul, Matthew Starr, Marcelo Rocha, Bradley J Molyneaux, **Tudor G Jovin**, Ashutosh

- P Jadhav Abstract TP2: Impact of Neglect on Outcomes After Right Hemisphere Stroke Thrombectomy Stroke. ;51:ATP2 February 2020
191. Kavit Shah, Shashvat Desai, Benjamin Morrow, Pratit Patel, Habibullah Ziayee, Klein Bradley, Jay Dolia, Marcelo Rocha, Matthew Starr, **Tudor Jovin**, Ashutosh P Jadhav Abstract TP248: Reduced Door-in-Door-Out Time Increases the Likelihood of Endovascular Thrombectomy for Large Vessel Occlusion Patients Stroke. ;51:ATP248 February 2020
  192. Shashvat Desai, Bradley J Molyneaux, Marcelo Rocha, Matthew Starr, **Tudor G Jovin**, Ashutosh P Jadhav Abstract TP77: Impact of Time and Aspects on Clinical Core Mismatch in Large Vessel Occlusion Strokes Stroke. ;51:ATP77 February 2020
  193. Marcelo Rocha, Shashvat Desai, **Tudor Jovin**, Ashutosh Jadhav Abstract WP163: Clinical Characteristics of Fast and Slow Progressors of Infarct Growth Due to Anterior Circulation Large Vessel Occlusion Stroke. ;51:AWP163, February 2020
  194. Shashvat Desai, Andrew A Morrison, Matthew Starr, Bradley J Molyneaux, Marcelo Rocha, Bradley A Gross, Brian T Jankowitz, **Tudor G Jovin**, Ashutosh P Jadhav Abstract WP21: “Stunned Brain”– Early versus Delayed Clinical Recovery After Neurothrombectomy Stroke. ;51:AWP21 February 2020
  195. Shashvat M Desai, Daniel A Tonetti, Andrew A Morrison, Bradley A Gross, Brian T Jankowitz, **Tudor G Jovin**, Ashutosh P Jadhav Abstract WP34: The Relationship Between Reperfusion and Intracranial Hemorrhage After Thrombectomy Stroke. ;51:AWP34, February 2020
  196. Rana A, Yu S, Gold J, Kamen S, Heslin ME, Thau L, Jovin TG, Thon JM, Shaikh H, Siegler JE. Single Comprehensive Stroke Center Experience of Endovascular Therapy vs Medical Management: Extended Window with Poor ASPECTS. E-poster presentation at the American Academy of Neurology 2021 Virtual Annual Meeting, April 2021

## PROFESSIONAL ACTIVITIES

### RESEARCH:

#### Research Grants:

#### Current Grant Support:

| Grant Title                                                                                                                                     | Role in Project And Percentage Of Effort | Years Inclusive | Source                |
|-------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-----------------|-----------------------|
| AURORA (Analysis of Pooled Data from Randomized Studies of Thrombectomy More than 6 hours After Last Known Well– AURORA ) group pooled analysis | Principal Investigator                   | 4/2018-         | Stryker Neurovascular |

|                                                                                                                                                                                                                                                                                                                                                                                                       |                               |                   |                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------|----------------------------------------------------------------------------|
| Multicenter review of Thrombectomy cases performed with REACT catheters as first line.                                                                                                                                                                                                                                                                                                                | Principal Investigator        | 2020 - open       | Medtronic                                                                  |
| StrokeNet: The goal of the NINDS Stroke Trials Network is to streamline and accelerate the translation of experimental stroke therapies to clinical application. The Network will consist of a group of Regional Coordinating Centers (RCCs), combining research and clinical expertise with access to significant populations of stroke patients willing to participate in clinical trials. (STN-UP) | RCC Principal Investigator    | 8/31/18-1/31/2019 | NIH/NINDS 1U10NS086489-01                                                  |
| StrokeNet: The goal of the NINDS Stroke Trials Network is to streamline and accelerate the translation of experimental stroke therapies to clinical application. The Network will consist of a group of Regional Coordinating Centers (RCCs), combining research and clinical expertise with access to significant populations of stroke patients willing to participate in clinical trials. (STN-UP) | RCC Co-PI                     | 9/1/13-8/31/18    | NIH/NINDS 1U10NS086489-01                                                  |
| AURORA (Analysis of Pooled Data from Randomized Studies of Thrombectomy More than 6 hours After Last Known Well–                                                                                                                                                                                                                                                                                      | Chair, Executive Committee    | 2/2018-present    | Stryker                                                                    |
| DAWN : DWI or CTP Assessment with Clinical Mismatch in the Triage of Wake Up and Late Presenting Strokes Undergoing Neurointervention                                                                                                                                                                                                                                                                 | Global Principal Investigator | 11/1/2015-present | Stryker                                                                    |
| IN EXTREMIS LASTE (Evaluation of Acute Mechanical Revascularisation in Large Stroke (ASPECTS 0-5) with Large Vessel Occlusion within 6.5 hours after stroke onset or Last Known Well. Large Stroke Therapy Evaluation)                                                                                                                                                                                | Global Principal Investigator | 2/2018-Present    | CHU Montpellier by means of an unrestricted grant from Industry consortium |
| Principal Investigator. Basilar Occlusion Chinese Endovascular (BAOCHE) Study                                                                                                                                                                                                                                                                                                                         | Co-Principal Investigator     | 5/2015 - present  | Chinese government                                                         |
| Carotid Revascularization and Medical Management for Asymptomatic Carotid Stenosis Trial (CREST-2)                                                                                                                                                                                                                                                                                                    | Site Co-Investigator          | 12/2014-present   | NIH                                                                        |
| MISTIE III: A phase III, randomized, open-label, 500-subject clinical trial of minimally invasive surgery plus rt-PA in the treatment of intracerebral hemorrhage.                                                                                                                                                                                                                                    | Site Co-Investigator          | 3/11/15-present   | NIH/Johns Hopkins                                                          |
| Barrel Trial: Prospective, Multi-Center, Single-Arm Study of the Reverse Medical Barrel Vascular Reconstruction Device (VRD) for Adjunctive Treatment to Embolic Coils for Wide-Neck, Intracranial, Bifurcating/Branching Aneurysms of Middle Cerebral and Basilar Arteries (The BARREL Study)                                                                                                        | Site Co-Investigator          | 1/15/15-Present   | Covidien                                                                   |

**Research Grants:****Prior Grant Support:**

| <b>Grant Title</b>                                                                                                                                                                                                                                                                                                                | <b>Role</b>                   | <b>Years Inclusive</b> | <b>Sponsor</b>                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------|-------------------------------------------------------------------------------|
| REVASCAT RandomizEd trial of reVascularizAtion with Solitaire FR® device versus best mediCal therapy in the treatment of Acute stroke due to anTerior circulation large vessel occlusion presenting within 8 hours of symptom onset                                                                                               | Global Principal Investigator | 6/2012-5/2017          | Fundacio Ictus (Barcelona, Spain) by means of an unrestricted grant Medtronic |
| The insulin resistance intervention after stroke trial (IRIS): a randomized placebo controlled trial of pioglitazone, compared with placebo, for prevention of recurrent stroke and myocardial infarction after ischemic stroke and transient ischemic attack. Sub-Investigator                                                   | Sub-Investigator              | 2005 – present         | NINDS                                                                         |
| Neuroendovascular Intervention Management and Quality Outcomes Registry                                                                                                                                                                                                                                                           | Co- Investigator              | 7/30/14-present        |                                                                               |
| Trevo Registry: Data Collection on Trevo Retriever device                                                                                                                                                                                                                                                                         | Co-Investigator               | 5/20/15-present        | Stryker                                                                       |
| Systematic Evaluation of Patients Treated with Neurothrombectomy Devices for AcuTe Ischemic Stroke (Stratis) Registry                                                                                                                                                                                                             | Co-Investigator               | 6/10/15-present        | Covidien                                                                      |
| Antihypertensive Treatment of Acute Cerebral Hemorrhage: A Phase III Randomized Multicenter Clinical Trial of Blood Pressure Reduction for Hypertension in Acute Intracerebral Hemorrhage-- ATACH-II                                                                                                                              | Co- Investigator              | 9/2013-present         | NIH                                                                           |
| (NN1104 Rhapsody)—ZZ-3K3A-201: A multi-center, Phase 2 study using a continual reassessment method to determine the safety and tolerability of 3K3A-APC, a recombinant variant of human activated protein C (APC), in combination with tissue plasminogen activator (tPA) in moderately severe acute hemispheric ischemic stroke. | Sub-Investigator              | 10/1/2013-Present      | NeuroNext                                                                     |
| A Phase IIb, double-blind, multicenter study to evaluate the efficacy and safety of alteplase in patients with mild stroke: rapidly improving symptoms and minor neurologic effects (PRISMS)                                                                                                                                      | Co-Investigator               | 8/2014-Present         | Genentech Inc.                                                                |

|                                                                                                                                                                         |                             |                  |                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------|------------------------------------------|
| GORE HELEXTM Septal Occluder and Antiplatelet Medical Management for Reduction of Recurrent Stroke or Imaging-Confirmed TIA in Patients with Patent Foramen Ovale (PFO) | Sub-Investigator            | 10/1/09-open     | W.L. Gore & Associates                   |
| The Spot Sign for Predicting and Treating ICH Growth Protocol (STOP IT STUDY)                                                                                           | Sub-Investigator            | 4/1/08-4/30/14   | NIH/NINDS 2P50 NS044283                  |
| Carotid Revascularization Endarterectomy vs. Stent Trial (CREST)                                                                                                        | Co- Investigator            | 4/29/04-12/31/16 | NIH/NINDS 5R01 NS038384                  |
| Interventional Management of Stroke (IMS) III                                                                                                                           | Co-Investigator             | 6/1/06-8/31/15   | University of Cincinnati<br>U01 NS052220 |
| NETT: Neurological Emergencies Treatment Trial                                                                                                                          | Co-Investigator             | 9/1/12-7/31/17   | U10 NS08037                              |
| CRISP: CTP to predict response to recanalization in ischemic stroke project                                                                                             | Site Principal Investigator | 3/1/12-228/16    | NIH RO1NS075209                          |
| SB623 IN ISCHEMIC ST                                                                                                                                                    | Co- Investigator            | 7/1/11-6/30/16   | SanBio                                   |
| B01-02 Double-blind, randomized, placebo-controlled Phase 2 safety and efficacy trial of MultiStem                                                                      | Co-Investigaor              | 3/2012-3/2016    | Athersys                                 |

**Prior Grant Support at the University of Pittsburgh:**

| <b>Grant Title</b>                                                                                                                                                    | <b>Role in Project And Percentage Of Effort</b> | <b>Years Inclusive</b> | <b>Source \$ Amount</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------|-------------------------|
| Carotid occlusion surgery study (COSS) Sub-Investigator                                                                                                               | Sub- Investigator                               | 9/2002-11/15/2010      | NIH                     |
| Albumin in Acute Stroke (ALIAS) Trial: A Phase III randomized, multicenter clinical trial of high dose albumin therapy for neuro protection in acute ischemic stroke. | Sub-Investigator                                | 2006 – 12/15/2010      | NIH                     |
| A randomized Multi Center Clinical Trial of Unruptured Brain Arteriovenous Malformation (ARUBA) ,                                                                     | Sub Investigator                                | 2007 – 7/2010          | NIH                     |
| Pilot study of Magnetic Resonance Imaging Techniques for Selecting Patients for intravenous TPA therapy between 3-6 hours after stroke onset (DEFUSE),                | Co- Investigator                                | 7/2000 – 2006          | NINDS                   |
| Safety and Efficacy of NeuroFlo in 8-24 hour stroke patients (Flo 24),                                                                                                | Sub –Investigator                               | 2005 –2010             | CoAxia                  |

|                                                                                                                                                                                                                                                                                      |                           |                 |                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------|-------------------------------|
| A post approval study of the Guidant carotid stent systems and embolic protection system ( CAPTURE)                                                                                                                                                                                  | Sub –Investigator         | 2005 – 2008     | Guidant                       |
| Safety and Efficacy of NeuroFlo Technology in Ischemic Stroke (SENTIS),                                                                                                                                                                                                              | Sub-Investigator          | 2005-2010       | CoAxia Inc                    |
| A study of care intensity and outcomes of NeuroFlo (SCION                                                                                                                                                                                                                            | Sub-Investigator          | 2005-2010       | Co-Axia Inc                   |
| Safety and Effectiveness of Cortical Stimulation in the treatment of upper extremity hemiparesis,                                                                                                                                                                                    | Sub-Investigator          | 2005-2008       | Northstar Neuroscience        |
| Prevention regimen for effectively avoiding second strokes: a double blind, active and placebo controlled study of Aggrenox vs. clopidogrel + aspirin with and without Micardis in stroke (PROFESS),                                                                                 | Sub investigator          | 7/2004 - 5/2008 | Boehringer Ingelheim          |
| Phase I Study of Intravenous Thrombolysis plus hypothermia for acute treatment of ischemic stroke intravascular cooling in the treatment of stroke – longer tpa window(ICTUS-L)                                                                                                      | Sub-Investigator          | 2005-2007       | NINDS and Intercool therapies |
| A multicenter, double blind, randomized tolerability, safety and pharmacokinetic study of escalating multiple doses of ONO-2506 in acute ischemic stroke patients (ONO)                                                                                                              | Sub-Investigator          | 9/2004-2006     | ONO Pharma                    |
| Abciximab(ReoPro) in acute ischemic stroke                                                                                                                                                                                                                                           | Sub-Investigator          | 8/2004-2006     | Eli Lilly                     |
| CHANT (Cerebral Hemorrhage and NXY treatment) a double blind randomized placebo controlled, parallel group, multicenter phase II b study to assess the safety and tolerability of 72hours intravenous infusion of NXY-)( in adult patients with acute intracerebral hemorrhage(ICH), | Sub-Investigator          | 9/2004-2006     | Astra Zeneca                  |
| SA-NXY-007: Double blind, randomized, placebo controlled , parallel group, multicenter, phase IIb/III study to assess the efficacy and safety of intravenous NXY-059 in acute ischemic stroke (Saint II)                                                                             | Sub-Investigator          | 9/2004-2006     | Astra-Zeneca                  |
| A double blind randomized placebo controlled study of atorvastatin as prevention of cerebrovascular event in patients with previous transient ischemic attacks or stroke (Lipitor/sparcl)                                                                                            | Sub-Investigator          | 2000-2006       | Parke- Davis                  |
| Stroke outcomes and neuroimaging on intracranial atherosclerosis (SONIA)                                                                                                                                                                                                             |                           | 2000-2003       | NINDS                         |
| 1RO1NS36643-01 Warfarin vs. Aspirin in stenotic Intracranial disease (WASID),                                                                                                                                                                                                        | Steering committee member | 2000 – 2003     |                               |
| Angio jet thrombectomy in middle cerebral artery embolism study 1 (TIME1),                                                                                                                                                                                                           | sub-Investigator          | 2000-2003       | Possis Medical                |
| Study 872 –CL-004 ARTIST + A multicenter, stratified, randomized double blind placebo                                                                                                                                                                                                | Sub-Investigator          | 2001-2003,      | Yamanouchi USA, Inc           |

|                                                                                                                                                                                                                                                                           |                  |                |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|--------------------------|
| controlled study to evaluate neurologic function and disability in patients with acute ischemic stroke given tissue plasminogen activator plus YM872 or tissue plasminogen activator plus placebo (Artist-tpa),                                                           |                  |                |                          |
| Multicenter phase II, randomized double-blind, placebo-controlled, dose-escalation study to evaluate the safety of preliminary efficacy activated recombinant factor VII (NovoSeven) for preventing early hematoma growth in acute intracerebral hemorrhage (ICH) (NOVO7) | Sub-Investigator | 9/2000-6/2003  | NOVO Nordisc             |
| The Interventional management of stroke (IMS) Study (EKOS IMS I),                                                                                                                                                                                                         | Sub-Investigator | 6/2000-6/2002  | NINDS                    |
| A phase I open label safety pharmacokinetic study of the oxygenated fluorocarbon nutrient emulsion(OFNE) Perfusion System in adult patients with severe focal hemispheric ischemia (Neuron Ischemic)                                                                      | Sub-Investigator | 2/2002-3/2003  | Neuron Therapeutics Inc. |
| A randomized, double blind, placebo controlled trial to evaluate the efficacy, safety, tolerability and pharmacokinetic/thermodynamic effects of a target exposure to intravenous Repentant in patients with acute ischemic stroke,                                       | Sub-Investigator | 2002-2003      | Bayer                    |
| Protocol number ARG-251: a randomized, placebo controlled, three treatment arm study to determine the safety and efficacy of agrarian injection in patients with acute ischemic stroke (ARGIS-I)                                                                          | Sub-Investigator | 10/1999 – 2002 | Praxair INC              |
| The effects of 2000 mg of Capitoline on clinical outcome and evolution of lesion volume in Human stroke (Capitoline)                                                                                                                                                      | Sub-Investigator | 7/2000-7/2001  | interneuron              |

**Prior Clinical trials Hospital of the University of Pennsylvania, Philadelphia PA:**

| <b>Grant Title</b>                                                                                                                                                                                                                                                         | <b>Role in Project And Percentage Of Effort</b> | <b>Years Inclusive</b> | <b>Source \$ Amount</b> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------|-------------------------|
| The clometiazole acute stroke study in ischemic stroke (Class-T); a double blind, parallel group , multinational study of the safety of intravenous clometiazole compared to placebo in patients with acute ischemic stroke                                                | Sub-Investigator                                | 1998-2000              | Astra-Zeneca            |
| The clometiazole acute stroke study in ischemic stroke (Class-T); a double blind, parallel group , multinational study of the safety of intravenous clometiazole compared to placebo in patients treated with tpa (tissue plasminogen activator) for acute ischemic stroke | Sub-Investigator                                | 1998-2000              | Astra USA , Inc         |

|                                                                                                                                                                                                                                                |                  |           |                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------|-------------------------|
| The clometiazole acute stroke study in acute intracerebral hemorrhage (Class H); a double blind, parallel group, multinational study of safety of intravenous clometiazole compared to placebo in patients with acute intracerebral hemorrhage | Sub-Investigator | 1998-2000 | Astra- Zeneca , USA Inc |
| A randomized, double blind placebo controlled, sequential, dose-escalation study to evaluate the safety of YM872 in patients with acute ischemic stroke ,                                                                                      | Sub-Investigator | 1998-2000 | Yamanouchi, USA Inc     |
| The effects of 2000 mg of citicoline on the clinical outcome and evolution of lesion volume in human stroke                                                                                                                                    | Sub-Investigator | 1999-2000 | ICOS Inc                |
| Abciximab (ReoPro) in acute ischemic stroke: a randomized, double blind, placebo-controlled, phase II dose escalation study                                                                                                                    | Sub-Investigator | 1998-2000 | Eli-Lilly               |

**Other research related activities:**

1. Ad hoc reviewer New England Journal of Medicine
2. Ad-hoc reviewer Lancet
3. Ad-hoc reviewer Journal of the American Medical Association (JAMA)
4. Ad-hoc reviewer Nature Medicine
5. Ad-hoc reviewer Lancet Neurology
6. Ad-hoc reviewer Stroke
7. Ad-hoc reviewer Neurology
8. Ad-hoc reviewer Annals of Neurology
9. Ad-hoc reviewer Journal of Neuroimaging
10. Ad-hoc reviewer Journal of Neurology Neurosurgery and Psychiatry
11. Ad-hoc reviewer Journal of Endovascular Therapy
12. Ad-hoc reviewer Neurosurgery
13. Ad-hoc reviewer Circulation
14. Ad-hoc reviewer Journal of Neurointerventional Surgery
15. Ad-hoc reviewer JAMA Neurology

16. Ad-hoc reviewer NINDS grant submissions
17. Abstract grader International Stroke Conference 2008, 2009, 2010, 2011, 2013, 2014, 2015, 2016
18. Abstract grader American Academy of Neurology Meeting 2008, 2009, 2010, 2013, 2014, 2015
19. Section Chair: Acute Endovascular Treatment, International Stroke Conference 2014, 2015, 2016
20. Vice Chair International Stroke Conference, 2021,2022

**Seminars and invited lectureships:**

1. The ischemic core and not the consistently present penumbra is a determinant of clinical outcome in acute MCA occlusion. The 2002 Sixth International Conference on Xenon CT-CBF and related CBF techniques, Hannover Germany, June 2002
2. Predictive value of Xenon CT-CBF for irreversible ischemia in acute MCA occlusion correlation with early CT findings. The 2002 Sixth International Conference on Xenon CT-CBF and related CBF techniques, Hannover Germany, June 2002
3. Clinical utility of Xenon CT in acute ischemic stroke. Washington University School of Medicine , St. Louis, MO, October 2003
4. Carotid revascularization: endarterectomy vs. stenting. University of Pittsburgh Medical Center, Stroke Institute Annual Conference , Pittsburgh , PA October 2003
5. Angioplasty, stents and intraarterial thrombolytics, National Stroke Association Nursing Meeting, Orlando FL , December 2003
6. Acute stroke management the next decade. American Society of Neuroimaging, Phoenix AZ, January 2004
7. Extracranial-intracranial (EC-IC) bypass for evolving cerebral ischemia in patients selected by neuroimaging a novel indication for an old operation. AANS/CNS Cerebrovascular section & American Society of Interventional & Therapeutic Neuroradiology, San Diego, CA February 2004
8. Management of Acute Ischemic Stroke , Grand Rounds UPMC Presbyterian Department of Neurology, March 2004

9. Pathophysiology of acute ischemic stroke. American Academy of Neurology Meeting, San Francisco CA April 2004
10. Update on acute stroke therapy. Medical Grand Rounds Butler Hospital, Butler PA August 2004
11. Recent advances in intra-arterial therapy for acute ischemic stroke Medical Grand Rounds, UPMC McKeesport, October 2004
12. Revascularization options in carotid disease endarterectomy and stenting. University of Pittsburgh Medical Center, Stroke Institute Annual Conference , Pittsburgh PA October 2004
13. Intra-arterial therapy for acute ischemic stroke. American Academy of Neurology Meeting, Miami Beach, FL, April 2005
14. Update on endovascular therapy for acute ischemic stroke Dubois 1<sup>st</sup> Annual Stroke Symposium, Dubois PA, June 2005
15. Stem cell transplantation for stroke does it work, and if so, how. International Spring School Meeting on regenerative medicine. Rostock, Germany June 2005
16. Endovascular treatment for acute ischemic stroke. Grand Rounds, Department of Neurosurgery, University of New Mexico Medical Center Albuquerque NM, October 2005
17. Intra-arterial management of stroke. UPMC Stroke update 2005, Pittsburgh , PA, December 2005
18. Revascularization options for carotid disease: carotid endarterectomy and carotid stenting. Cardiology grand rounds, UPMC Presbyterian University Hospital, Pittsburgh PA, January 2006
19. Endovascular management of central retinal artery occlusion. Ophthalmology Grand Rounds, UPMC Eye and Ear Institute, Pittsburgh, PA February 2006
20. Multimodal reperfusion therapy for acute ischemic stroke. Factors predicting vessel recanalization. AAN/CNS Annual Meeting Orlando, FL February 2006
21. Current Assessment of Cerebral Circulation Across Imaging, American Society of Neuroimaging Annual Meeting, San Diego, CA, March 2006
22. Endovascular treatment of acute ischemic stroke MERCI and other mechanical thrombolytic modalities. AAN Annual meeting, San Diego, CA, April 2006

23. Intra-arterial therapy for acute ischemic stroke Medical Grand Rounds , Shadyside Hospital, Pittsburgh, PA, July 2006
24. Intraarterial approach to cerebrovascular disease, University of Pittsburgh Stroke Institute, Pittsburgh PA , July 2006
25. Management of extracranial internal carotid artery occlusion in acute ischemic stroke. First SVIN Annual Meeting, Boston, MA April 2007
26. Xenon CT Evaluation of Acute Ischemic Stroke Advanced Neuroimaging for Acute Stroke Treatment Symposium, Washington DC, September 2007
27. “Stenting will become the main form for revascularization therapy for carotid artery stenosis” University of Pittsburgh, Stroke Institute, Pittsburgh PA , September 2007
28. Advances in Acute Stroke Management. Updates in Internal Medicine, University of Pittsburgh, Pittsburgh, PA, October 2007
29. Endovascular Therapy for Acute Ischemic Stroke. Department of Neuroscience, Hospital Germans Trias y Pujol, Barcelona Spain, October 2007
30. Advances in acute stroke treatment, Regional Alliance , Pittsburgh PA, October 2007
31. Acute interventional treatment of intracranial disease, American Heart Association Meeting, Orlando FL, November 2007
32. The role of Neuroflo therapy in acute ischemic stroke SENTIS Investigators Meeting, Las Vegas, NV, November 2007
33. The Role of Neuroflo Therapy in Acute Ischemic Stroke FLOW 24 investigators meeting, Frankfurt Germany, November 2007
34. Acute ischemic stroke management, Department of Neuroscience Grand Rounds, Geisinger Health System, Geisinger PA, November 2007
35. Endovascular treatment of acute ischemic Stroke, Grand Rounds Department of Neurology, UPMC Pittsburgh, PA
36. Endovascular Case Presentation, American Society of Neuroimaging, Tucson AZ, January 2008
37. Intra-arterial treatment of acute ischemic stroke- advances in patient selection and treatment modalities – MRC Toxicology Unit Invited speaker series, Leicester UK, June 2008

38. Intra-arterial treatment for acute ischemic stroke advances in patient selection and treatment modalities – Grand Rounds Department of Neurology, Queens Medical Center, June 2008 University of Nottingham, UK
39. Blood Flow Augmentation through Partial Aortic Obstruction (Neuro-Flo) in Acute Stroke. Society for Vascular and Interventional Neurology (SVIN) 2-nd Annual Meeting. October 2008, Miami, Florida
40. Intra-arterial Therapy for Acute Ischemic Stroke. Advances in Patient Selection. American Society of Neuroimaging Meeting, January 2009, Orlando, Florida.
41. Perfusion MRI and CT in Ischemic Cerebrovascular Diseases. American Society of Neuroimaging Meeting, January 2009, Orlando, Florida.
42. Career Pathways for Becoming an Academic Interventional Vascular Neurologist”, Fellows Luncheon, International Stroke Conference, San Diego, CA, February, 2009
43. Telestroke networks to implement emergent pharmacological and endovascular treatment in acute stroke- Interventional Neuroradiology, Endovascular Neurosurgery or Interventional Vascular Neurology: Qualifications, Aims and Boundaries. March 2009, Barcelona, Spain
44. Patient Selection for Endovascular Acute Ischemic Stroke Therapy. AAN Meeting May 2009 Seattle Washington.
45. Endovascular Treatment of Acute Stroke due to Internal Carotid Artery Occlusion. Society of Neurointerventional Surgery (SNIS) 7-th Practicum. May 2009, Vancouver, Canada.
46. Intra-arterial Thrombolysis for Acute Ischemic Stroke. Grand Rounds and Visiting Professorship. University of Alberta, Calgary, Department of Neuroscience. June 10 2009, Calgary, Canada
47. Preliminary Experience with Use of Solitaire Device in Acute Stroke Interventions. 10<sup>th</sup> Congress of World Federation of Interventional and Therapeutic Neuroradiology. June 2009, Montreal, Canada
48. Panel Discussion Interventional Management of Acute Ischemic Stroke. Jackson Hole, Wyoming, July 2009.
49. Interventional Therapy for Acute Ischemic Stroke. Alabama Medical Center, September 2009, Birmingham, Alabama.

50. Interventional Therapy for Acute Ischemic Stroke. Emory University, October 2009, Atlanta, Georgia.
51. Endovascular Acute Stroke Treatment. Advances in Patient Selection and Treatment Modalities. Nordic MERCI Users Workshop, November 2009, Stockholm, Sweden.
52. Interventional Therapy for Acute Ischemic Stroke. Case Western Reserve University, Department of Neurology Grand Rounds, December 2009
53. Endovascular treatment of ICA Occlusion. SVIN Third Annual Meeting, January 2010, San Francisco, California.
54. Use of CT and MRI Perfusion from Acute to Chronic Ischemia. American Society of Neuroimaging meeting. AJN 2010, San Francisco, California.
55. Endovascular Treatment of Acute Ischemic Stroke at UPMC. Israel Neurological Association. Tel Aviv, Israel, February 2010.
56. Merci Registry Interim Analysis. An Open Label Prospective- Multicenter Registry of Merci Thrombectomy for Acute Ischemic Stroke. American Stroke Association International Stroke Conference 2010, San Antonio, Texas, February 2010
57. Interventional Treatment of Acute Ischemic Stroke. Advances in Patient Selection. 62<sup>nd</sup> AAN Annual Meeting 2010, Toronto, ON Canada, April 2010.
58. AAN Education Program. Interventional Neurology. Course Director, 62<sup>nd</sup> Annual Meeting 2010, Toronto, ON Canada, April 2010
59. Interventional section, session Co-Chair. 27<sup>th</sup> Princeton Conference on Cerebrovascular Disease, Boston, MA, April 2010
60. Endovascular therapy for acute ischemic stroke. Challenges for the future, European Stroke Conference EV3 Symposium, Barcelona, Spain, May 2010.
61. Virtues and Vices of Devices, European Stroke Conference, Barcelona, Spain, May 2010.
62. Hazards and Rewards of Treating Acute Carotid Occlusion. Society of Neurointerventional Surgery (SNIS) 8-th Practicum, Boston, MA 2010.
63. Intra-arterial Thrombolysis for Acute Ischemic Stroke. Advances in Patient Selection. Hannover gegen den Schlaganfall. Hanover, Germany, August 2010.

64. Interventionalist perspective on acute ischemic stroke treatment. Clinical Integration of Tomographic Physiological Imaging and Multimodal Monitoring-present and future, Sante Fe, New Mexico, August 2010
65. Selection of Patients for Endovascular Treatment With Acute Stroke AAN Education Program 62nd Annual Meeting 2010, Toronto, ON Canada, April 2010.
66. Interventional Session Co-Chair, 27<sup>th</sup> Princeton Conference on Cerebrovascular Disease, Boston, MA , April 2010
67. Mechanical thrombectomy trials: which patients benefit Stair VII- Designing Acute Stroke Therapy for a New Decade, Washington, DC, and September 2010
68. Retrieval in Acute Stroke – Latest and Greatest. SVIN Fall Practicum and Interactive Laboratory, Atlanta, Georgia, October 2010
69. Interventional neurologist perspective on endovascular acute ischemic stroke treatment. Synthesis RCT on Intra-Arterial Thrombolysis, Investigator’s Meeting, Milan, Italy, November 2010
70. Use of CT and MRI Perfusion from Acute to Chronic Ischemia. American Society of Neuroimaging meeting. January 2011, San Francisco, California.
71. Perfusion Imaging in Acute Stroke (Debate). A non-contrast CT Scan is all you Need in the 4.5 Hour Window. AHA International Stroke Conference 2011, Los Angeles, California, February 2011
72. Endovascular Acute Ischemic Stroke Treatment. eV3 Symposium. American Stroke Association, International Stroke Conference 2011, Los Angeles, California, February 2011
73. Interventional Therapy for Acute Ischemic Stroke. Advances in Patient Selection. American Academy of Neurology Meeting 2011, Honolulu, HI April 2011
74. Endovascular Therapy for Acute Ischemic Stroke Beyond Conventional Time Window. 5<sup>th</sup> Annual Cerebrovascular Symposium. May, 2011, Swedish Hospital Seattle
75. Carotid Stents and CREST. 5<sup>th</sup> Annual Cerebrovascular Symposium. May, 2011, Swedish Hospital Seattle
88. Door to Needle: Optimizing Door-to-needle Time for Acute Stroke, New York Symposium on Neurological Emergencies and Neurocritical Care, New York, 2011.

89. Endovascular therapy for acute ischemic stroke. Columbia University Department of Neurology Grand Rounds, New York, June 2011
90. Interventional therapy for acute stroke. Harvard Medical School, Brigham and Women Hospital, Department of Neurology Grand Rounds, Boston, September 8 2011
91. Interventional therapy for acute stroke. Harvard Medical School, Massachusetts General Hospital, Department of Neurology Grand Rounds, Boston, September 8 2011
92. Endovascular therapy for acute ischemic stroke. 2-nd Romanian Medical Academy Brain Days Symposium, Bucharest, Romania September 2011
93. Stenting for acute stroke due to intracranial stenosis. 3-rd International Conference on Intracranial Disease, Valladolid, Spain Oct 2011
94. Endovascular Procedures: A revolution in Acute Stroke Care. Where are we heading?" Spanish Society of Neurology Meeting, Barcelona, November 2011
95. Use of CT and MRI Perfusion from Acute to Chronic Ischemia. American Society of Neuroimaging Meeting. January 2012, San Francisco, California.
96. IA Therapy Treatment Selection- CT is sufficient, American Society of Neuroradiology (ASNR) Meeting, New York, April 2012
97. Moderator, Imaging Biomarkers in Endovascular Stroke Therapy: Translation from Clinical Research to Practice, American Heart Association, International Stroke Conference, New Orleans, February 2012
98. Acute Endovascular Stroke Therapy, American Academy of Neurology Meeting 2011, New Orleans, April 2012
99. ICU Management of Acute Stroke Patients- Medical and Surgical Including when to Image, American Society of Neuroradiology (ASNR) Meeting, New York, April 2012
100. Endovascular Mechanical Thrombectomy versus Thrombolysis in acute stroke. Keynote lecture, Live Interventional Neuroradiology and Neurosurgery Course (LINNC), Paris, June 2012
101. Trevo® Pro Retrieval System: Advancing Complete Stroke Care Solutions through Clinical Evidence, Live Interventional Neuroradiology and Neurosurgery Course (LINNC), Paris, June 2012

102. Acute Stroke Interventions: When to perform before the 8 hours? Congress of the Brazilian Society of Interventional Radiology and Endovascular Surgery, SOBRICE 2012. Salvador de Bahia, July 2012
103. Acute Stroke Interventions: Stroke after Coronary Interventions Congress of the Brazilian Society of Interventional Radiology and Endovascular Surgery, SOBRICE 2012. Salvador de Bahia, July 2012
104. Aneurysm Treatment: Y-stent for bifurcations aneurysms. Congress of the Brazilian Society of Interventional Radiology and Endovascular Surgery, SOBRICE 2012. Salvador de Bahia, July 2012
105. Cervicocranial angioplasty: Intracranial stent after SAMPPRIS Congress of the Brazilian Society of Interventional Radiology and Endovascular Surgery SOBRICE 2012. Salvador de Bahia, July 2012
105. Stroke Prevention. UPMC St Margaret Grand Rounds, Pittsburgh, August 2012
106. Management of Acute Stroke and New Onset Seizures. UPMC Montefiore Hospital, Pittsburgh, August 29, 2012
107. Treatment Options for Intra and Extracranial Atherosclerotic Disease. UPMC Stroke Update. Pittsburgh, Pennsylvania, October, 2012.
108. The future of acute stroke intervention. 5<sup>th</sup> Annual Society of Vascular and Interventional Neurology meeting Miami, Florida October 2012
109. Telemedicine and Stroke Care Heritage Valley Health Care Systems, January 2013
110. Approach to acute stroke UPMC Shadyside Pittsburgh PA January , 2013
111. Stroke Telemedicine. Washington Hospital Lecture Series, Washington PA January 16, 2013
112. Neuroimaging Perspective: Is Plain CT Good Enough? ISET: Endovascular Therapy Conference. Miami, Florida, January 18, 2013
113. Panel Discussion: Should IVTPA Continue to be the Standard of Care in Acute Stroke? Endovascular Therapy Conference (ISET), Miami, Florida, January 2013
114. Particularities of Acute Vertebrobasilar Occlusion Endovascular Therapy Conference (ISET), Miami, Florida, January 2013
115. Endovascular Acute Stroke Therapy Grand Rounds New York University, New York, January 22, 2013

116. Faculty, Fellow and Early Career/Stroke Leader Roundtable Luncheon, American Heart Association, International Stroke Conference, Hawaii February 2013
117. Endovascular Therapy for Acute Ischemic Stroke: Current status and future directions, AHA Stroke Journal Webinar series, Webinar #10, February 2013
118. Selection for Endovascular Acute Stroke Therapy American Academy of Neurology Meeting, San Diego CA March 2013
119. Neuroflash: Acute Endovascular Stroke Cases American Academy of Neurology Meeting, San Diego CA, March 2013
120. Advances in Stroke Telemedicine. UPMC Horizon-Shenango Campus April 16, 2013
121. The importance of EMS in stroke. EMS lecture series, UPMC McKeesport Hospital April 29, 2013
122. Update on DAWN , Montpellier, France, June 2013
123. Key Subgroup Analyses from the IMS3 trial, REVASCAT Investigators Meeting, Barcelona, Spain, Barcelona, Spain, June 2013
124. Strategic considerations for FDA stroke approval trial, Silk Road Investigators Meeting, Pittsburgh, October 2013
125. Endovascular Treatment of Acute Ischemic Stroke: Current Status and Future Directions, Pittsburgh, October 2013
126. DAWN Study Update. Lunch Symposium, SVIN Annual Meeting, Houston, October 2013
127. Manual Aspiration Thrombectomy for Acute Ischemic Stroke, SVIN Annual Meeting, Houston, Texas 2013
128. US Enrollment Experience in SWIFT PRIME, SWIFT PRIME Investigators Meeting, Frankfurt, Germany, December 2013
129. Endovascular Treatment for Acute Ischemic Stroke: Role of Imaging and Future Directions, Grand Rounds, Xuanwu University Hospital, Beijing, China, December 2013
130. Use of CT and MRI Perfusion from Acute to Chronic Ischemia. American Society of Neuroimaging Meeting. Sarasota, Florida, January 2014,

131. Aspiration Thrombectomy for Acute Cerebrovascular Diseases, Covidien Inc. Lunch Symposium, Joint Cerebrovascular Section Meeting of the AANS/CNS, San Diego, California 2014
132. DAWN Study Update. Stryker Inc., Lunch Symposium, Joint Cerebrovascular Section Meeting of the AANS/CNS, San Diego, California 2014
133. Early Treatment of Carotid Stenosis in Acute Setting Should Be Implemented. International Stroke Conference, San Diego, February 2014
134. Negative Randomized Studies in Endovascular Therapy for Acute Stroke: Can Different Study Designs Lead to Different Results? Session Moderator, International Stroke Conference, San Diego, California, ISC 2014
135. Update on Endovascular Therapy for Acute Ischemic Stroke. American Academy of Neurology Meeting, Philadelphia, PA 15217
136. Update on DAWN. DAWN Investigators Meeting, European Stroke Meeting, Nice, France, 2014
137. Endovascular Therapy for Acute Ischemic Stroke; A Global Perspective, Chinese Annual Stroke Conference, Beijing, China, May 2014
138. Endovascular Therapy for Acute Ischemic Stroke: Current Status and Future Directions, Annual Stroke Conference, Beijing, China, May 2014
139. Decompressive Hemicraniectomy for Stroke Patients-Indications, Keynote Lecture, Live Interventional Neuroradiology and Neurosurgery Course (LINNC), Paris, June 2014
140. ARUBA and beyond. Roundtable discussion panelist. Live Interventional Neuroradiology and Neurosurgery Course (LINNC), Paris, June 2014
141. Imaging vs Time based selection for Acute Stroke Interventions. UPMC Stroke Update Course, Pittsburgh, September 2014
142. Interventional Neurology Update. Ischemic Cerebrovascular Disease. Pennsylvania Neurological Society Meeting. Pittsburgh, PA, September 2014
143. Endovascular approach to acute stroke is not indicated in most cases- against the proposal, Debate- Transcatheter Cardiovascular Therapeutics (TCT) Meeting, Washington DC, Sept 2014
144. REVASCAT in the Context of Ongoing Clinical Trials and Strategies to Decrease Time To Reperfusion. REVASCAT Investigators Meeting, Barcelona, Spain, October, 2014

145. Large Vessel Occlusion Stroke- When To Call The Interventionalist. Canadian Stroke Congress, Vancouver, Canada, October 2014
146. Endovascular Therapy For Acute Ischemic Stroke- Current Status And Future Directions. Canadian Stroke Congress, Vancouver, Canada, October 2014
147. Update on REVASCAT, ESCAPE and DAWN trials. TTST, Mannheim, Germany October, 2014
148. Industry Roundtable: Medical Devices, Tele-Health Technology, and Successful Stroke Centers: Hub-Stroke Telestroke Model, 2nd SVIN Annual Stroke Center Certification Workshop, Hollywood Florida, November 2014
149. Manual Aspiration Thrombectomy vs. Solitaire Assisted MAT. Getting What You Pay For, Breakfast Symposium, 7-th Annual SVIN Meeting, Hollywood Florida, November 2014
150. Building an Interventional Neurology Practice. 7-th Annual SVIN Meeting, Hollywood Florida, November 2014
151. Update on CREST-2 Companion Registry. 7-th Annual SVIN Meeting, Hollywood Florida, November 2014
152. The future of endovascular therapy for acute ischemic stroke. 3-rd Annual Stroke Update Conference of the University of Toledo, Ohio. Perrysburg, Ohio, November 2014
153. Management of Central Retinal Artery Occlusion. Pittsburgh Ophthalmology Society meeting, Pittsburgh, PA, January 2015
154. Relationship Between 24 Hour Infarct Volume And Clinical Outcomes In IMS 3. International Stroke Conference, Nashville, TN, February 2015
155. Tandem occlusion case – interactive case presentation. International Stroke Conference, Nashville, TN, February 2015
156. Problems with Intervention in Acute Stroke: 7 Little Things. Session Moderator. International Stroke Conference, Nashville, TN, February 2015
157. Acute Endovascular Treatment. Impact and Implementation. European Stroke organization Conference. Session Convenor. Glasgow, UK April 2015
158. REVASCAT. European Stroke organization Conference. Medtronic Symposium. Glasgow, UK 2015

159. REVASCAT Trial Presentation. American Academy of Neurology Meeting, Washington, DC, April 2015
160. Endovascular Treatment for Acute Ischemic Stroke. Grand Rounds. Department of Medicine. University of Pittsburgh Medical Center. April 2015. Pittsburgh, PA
161. Endovascular Therapy for Acute Ischemic Stroke: An Update. Annual China Stroke Conference. Beijing, China. May 2015
162. Endovascular Treatment for Acute Ischemic Stroke. Current Status and Future Directions. Zappula Research Day. Department of Neuroscience. JFK Medical Center. Edison, New Jersey, June 2015
163. Revascularization options in Carotid Disease. UPMC Neurology Update. Pittsburgh, PA, June 2015
164. REVASCAT Update. World Neurointerventional Live Course, Chicago, IL, June 2015,
165. Workflow and technical issues in endovascular stroke. LINNC, Paris, France, June 2015
166. Update on REVASCAT. Annual Society of Neurointerventional Surgery Meeting, San Francisco, CA. July 2015,
167. Update on DAWN. DAWN PI site visit, Toulouse, France. August 2015,
168. How much imaging is needed for acute stroke endovascular therapy selection ? SLICE meeting, Nice, France. September 2015.
169. Endovascular therapy for acute ischemic stroke- future directions, SLICE meeting, Nice France, September 2015
170. Acute Stroke Imaging. Key Note Lecture. St Louis University Annual Stroke Update, St. Louis, MS, September 2015
171. Management of carotid disease. St Louis University Annual Stroke Update, St Louis, MS, September 2015
172. Endovascular treatment for stroke in the extended time window. American Neurological Association Meeting, Chicago, IL, September, 2015
173. Update on REVASCAT. STAIR IX Meeting, Bethesda, MD, October 2015
174. Imaging aspects in REVASCAT. STAIR Meeting, Bethesda, MD, October 2015

175. Update on DAWN. DAWN PI site visit, Melbourne, Australia, October 2015
176. Endovascular acute stroke therapy: integrating imaging into treatment decisions, Transcatheter Cardiovascular Therapeutics (TCT), San Francisco, CA, October 2015
177. Acute Stroke due to Tandem Occlusion. Live Recorded Case. Transcatheter Cardiovascular Therapeutics (TCT), San Francisco, CA, October 2015
178. Building a successful academic clinical trial center. SVIN 3-rd Annual Comprehensive Stroke Center Certification Workshop, Bonita Springs, FL 2015
179. Adjunctive antithrombotic therapy in endovascular stroke. 8-th annual SVIN meeting, Bonita Springs, FL, October 2015
180. Multispeciality certification for neurointerventional operators. 8-th Annual SVIN meeting, Bonita Springs, FL, October 2015
181. Endovascular therapy for acute ischemic stroke-spring has indeed arrived. Key Note Speaker. Annual Chinese Neurointerventional Conference, Shanghai, China, November 2015
182. Organizing a Stroke Center. A vascular/interventional neurologist's/perspective. Annual Chinese Neurointerventional Conference, Shanghai, China, November 2015
183. Endovascular therapy for acute ischemic stroke-key issues. Medtronic Health Economics Advisory Board Meeting, Las Vegas, NV, November 2015
184. Update on REVASCAT. Acute Ischemic Stroke Symposium, Veith Symposium, New York, NY, November, 2015
185. Overview of Recent Endovascular Stroke Trials. Inaugural Indian Society of Neuroendovascular Therapeutics Meeting, New Delhi, India, December 2015
186. Relevance of ICAD interventions in the current scenario. Inaugural Indian Society of Neuroendovascular Therapeutics Meeting. New Delhi, India, December 2015
187. Stenting in acute stroke. When do I do it? Inaugural Indian Society of Neuroendovascular Therapeutics Meeting. New Delhi, India, December 2015
188. Thrombectomy Trials: Outcomes and Techniques. Cedars Sinai 8-th Annual Symposium on Cerebrovascular Diseases

189. Selecting Ischemic Stroke Patients for Acute Endovascular Therapy: The State of the Evidence. Time: When Is It Getting Too Late? International Stroke Conference, Los Angeles, CA, February 2016
190. KOL Neuroimaging Session (an American Heart/American Stroke Association and European Stroke Organisation Joint Session). Session moderator. International Stroke Conference, Los Angeles, CA, February 2016
191. Selecting patients for stroke intervention directly in the angiography suite. – interactive case presentation. International Stroke Conference, International Stroke Conference, Los Angeles, CA, February 2016
192. Time is Brain in Endovascular Thrombectomy. Results from Individual Patient Pooled Data Analysis of MR CLEAN, ESCPAE, EXTEND IA, SWIFT PRIME and REVASCAT
193. Update on the DAWN trial. 5T Conference. Banff, Canada, February 2016
194. PSC straight to angio lab. 5T Conference. Banff, Canada, February 2016
195. Direct aspiration and direct puncture approaches in acute stroke interventions. 5T Conference. Banff, Canada, February 2016
196. Course faculty. Roundtable discussion panelist. Live Interventional Neuroradiology and Neurosurgery Course (LINNC), New York, March 2016
197. Optimizing workflow in acute stroke interventions. Charing Cross Meeting., London, April 2016
198. Indication for Thrombectomy in wake up stroke. Should there be a time window for acute stroke interventions? LINNC, Paris, France, May 2016
199. MRI is not necessary for patient selection in the 0-6 hour time window. LINNC Meeting, Paris, France, May 2016
200. Endovascular Therapy for acute stroke. Patient selection. Kuopio Finnish Stroke Symposium. Kuopio, Finland, June 2016
201. Endovascular Therapy for acute ischemic stroke. What do the guidelines say? SNVICON Meeting. Pune, India, June 2016
202. Stenting/Angioplasty in Acute Stroke Interventions. SNVICON Meeting, Pune, India June 2016
203. Aspiration Thrombectomy For Acute Cerebrovascular Diseases. SNVICON Meeting, Pune, India, June 2016

204. Carotid Revascularization in Asymptomatic Disease. SNVICON Meeting, Pune, India, June 2016
205. Endovascular Therapy for acute ischemic stroke. Making Health Systems Fit to Offer Hyperacute Treatment of Stroke. SINS Meeting, Santiago de Chile, Chile, July 2016
206. How much imaging is needed for patient selection for endovascular therapy. SINS Meeting, Santiago de Chile, Chile, July 2016
207. What adjunctive therapies hold promise for enhancing the effect of endovascular therapy? SINS Meeting, Santiago de Chile, Chile, July 2017
208. Update on Reimbursement for Embolectomy. Brain Attack Coalition Meeting. Bethesda, MD, July 2016
209. Update on endovascular Therapy for Acute Ischemic Stroke. Pittsburgh Vascular Symposium, Pittsburgh, PA, August 2016
210. Carotid Revascularization Management Update. Pittsburgh Stroke Symposium, Pittsburgh PA, September 2016
211. Expanding to New Frontiers in Evidence Based Acute Ischemic Stroke Treatment. DAWN clinical trial update. SLICE Meeting. Nice, France October 2016
212. Is it Possible to Routinely Reduce Door to Groin Time to Less Than 30 min ? SLICE Meeting, Nice, France, October 2016
213. Endovascular Therapy for acute stroke. Historical Perspectives. 19-th Annual National Stroke Conference, Bucharest, Romania, Oct 2016
214. Endovascular Therapy for acute stroke. Patient selection. 19-th Annual National Stroke Conference, Bucharest, Romania, Oct 2016
215. Acute Stroke due to Basilar Artery Occlusion. Specific Aspects. 19-th Annual National Stroke Conference, Bucharest, Romania, Oct 2016
216. Endovascular Therapy for Acute Stroke. Key Future Developments. 19-th Annual National Stroke Conference, Bucharest, Romania, October 2016
217. Direct Evaluation of Thrombectomy Patients in the Angiography Suite. TTST Meeting. Kobe, Japan, October 2016

218. Endovascular Therapy for Acute Stroke. Treatment of Patients with Mild Stroke and Distal Occlusions. TTST Meeting. Japan, October 2016
219. Management of Patients with Intracranial Disease (panel discussant), 3-rd International Symposium on Collaterals, Los Angeles, CA, November 2016
220. Update on DAWN. IX-th SVIN Annual Meeting. New York City, NY, November 2016
221. Endovascular acute stroke. Live recorded case. IX-th SVIN Annual Meeting. New York City, NY, November 2016
222. Endovascular Treatment for Acute Ischemic Stroke. Historical Perspectives and Future Approaches. 52-nd Annual Turkish Neurological Society Meeting, Antalya, Turkey November 2016
223. Endovascular Treatment for Acute Ischemic Stroke. Imaging Considerations. 52-nd Annual Turkish Neurological Society Meeting, Antalya, Turkey November 2016
224. Endovascular therapy for acute ischemic stroke key future developments. Third South American Neurocritical Care / Neuro-Interventional meeting. Quito Ecuador, November 2016
225. Acute stroke due to basilar artery occlusion. Specific aspects. Xuanwu Hospital symposium on Basilar Artery Occlusion. Beijing, China. December 2016
226. Carotid revascularization-management update. Cardiology Grand Rounds. UPMC Presbyterian Hospital, Pittsburgh, PA. December 2017.
227. Endovascular therapy for acute ischemic stroke- making health systems fit to offer hyperacute treatment of stroke. RACECAT Investigators Meeting. Barcelona, Spain 2017
228. Endovascular therapy for acute ischemic stroke key future developments. Doctoral School Neurosciences classes. Cluj Napoca. Romania. January 2017
229. Imaging and workflow in acute ischemic stroke. Doctoral School Neurosciences classes. Cluj Napoca, Romania. January 2017
230. Acute Stroke Case Presentation: Direct Transfer to the Angiography Suite. Video Presentation and Panel Discussion. International Symposium on Neurovascular and Neurosurgical Disorders. Abu Dhabi, UAE, February 2017
231. DAWN study design, strengths, weaknesses. AANS/CNS Joint Cerebrovascular Section Annual Meeting. Houston, TX, February 2017

232. Should we consider randomized trials of symptomatic carotid disease?  
International Stroke Conference. Plenary Session. Controversy in Stroke.  
Houston , TX, February 2017
233. Endovascular therapy for acute ischemic stroke. Patient selection. Neuroscience  
in Intensive Care International Symposium in America. Washington, DC. March  
2017
234. Course faculty. Roundtable discussion panelist. Live Interventional  
Neuroradiology and Neurosurgery Course (LINNC), New York, March 2017
235. ENDOVASCULAR THERAPY FOR ACUTE ISCHEMIC STROKE. KEY  
ISSUES. UPMC Acute Stroke Management Nursing Symposium. Pittsburgh,  
PA, April 2017
236. Endovascular therapy for acute ischemic stroke. Evidence Based Case Examples.  
69-th American Academy of Neurology (AAN) Meeting. Boston, April 2017
237. DAWN in Full Daylight. Plenary Meeting, Results of Randomized Trials, 3rd  
European Stroke Organisation Conference (ESOC), Prague, Czech Republic,  
May 2017
238. Perspective on Neurologists and Endovascular Training. 3rd European Stroke  
Organization Conference (ESOC), Prague, Czech Republic, May 2017
239. Endovascular therapy for acute ischemic stroke. patient selection. 13th  
International Stroke Summit (ISS 2017), Nanjing, China, June 2017
240. Update on DAWN. 13<sup>th</sup> International Stroke Summit (ISS 2017), Nanjing, China,  
June 2017
241. Bridging therapy with iv t-pa prior to thrombectomy is it really necessary?  
Mercy Health Stroke Second Annual Symposium. Toledo, OH , June 2017
242. Endovascular Treatment for Stroke beyond 6 hours. Update on DAWN and  
Results from Trevo Registry. 2nd Annual Congress of Society of Neuro Vascular  
Interventions (SNVICON), Bengaluru, India, June 2017
243. Is there a role for balloon angioplasty in ICAD? 2nd Annual Congress of Society  
of Neuro Vascular Interventions (SNVICON), Bengaluru, India, June 2017
244. New developments in aneurysm devices. 2nd Annual Congress of Society of  
Neuro Vascular Interventions (SNVICON), Bengaluru, India, June 2017

245. Endovascular Acute Stroke Therapy after DAWN. Are there still Time Limits? Keynote lecture. Stroke Symposium of the Inselspital University Hospital, Berne, Switzerland, August 2017
246. Update on DAWN. Canadian Stroke Congress. Calgary, Canada, September 2017
247. DAWN – results and implications. UPMC Stroke Update. Pittsburgh, PA, September 2017
248. Acute Stroke Interventions at UPMC. A Systems of Care Overview. Congress of Neurological Surgeons Pre-Symposium, Boston, MA. October 2017
249. DAWN trial update and results. SLICE Meeting. Nice, France October 2016
250. UPMC Case Presentation. 50 year old man with tandem occlusion. SLICE Meeting. Nice, France October 2016
251. Update on DAWN. The 15th Oriental Conference of Interventional Neuroradiology (OCIN), Shanghai, China 2017
252. Periprocedural management in thrombectomy for stroke: protecting the brain before and after reperfusion. The 15-th Oriental Conference of Interventional Neuroradiology (OCIN), Shanghai, China 2017
253. DAWN Trial. Results and Implications. STAIR X Meeting, Arlington, VA October 2017
254. Direct Transfer to the Angiosuite for Thrombectomy Patients is the way of the future. X-th Meeting of the Society of Vascular and Interventional Neurology (SVIN), Boston, MA, November 2017
255. Results of the Subgroup Analysis of DAWN. X-th Meeting of the Society of Vascular and Interventional Neurology (SVIN), Boston, MA, November 2017
256. Should we treat patients beyond 6 hours ? 26th Annual Symposium on Current Issues And New Techniques In Interventional Radiology And Endovascular Therapy, New York, NY, November 2017
257. DAWN Trial. Results and Implications. 1-st Annual Xuanwu Hospital Geriatric Conference, Beijing, China, November 2017
258. Update on BAOCHE. 1-st Annual Xuanwu Hospital Geriatric Conference, Beijing, China, November 2017

259. Thrombectomy for Stroke beyond 6 hours. First Annual Neurological Disorders and Stroke Update. Promedica. Toledo, OH, December 2017
260. A case of clot refractory to thrombectomy. Case presentation and discussion. Clots 3 Summit. Sponsor: Cerenovus. Amsterdam, Netherlands. December 2017
261. DAWN-Results and Implications. 1-st NEUROIMC meeting. Madrid, Spain, January 2018 (web based presentation).
262. DAWN –Can Results Be Generalized? Society of Neurointerventional Surgery (SNIS) meeting, Los Angeles, CA, January 2018
263. Imaging Selection For Thrombectomy– Who Should We Treat And Who Should We Study? AHA International Stroke Conference, Los Angeles, CA, January 2018
264. Endovascular Therapy For Acute Ischemic Stroke; Current Status And Future Directions, Grand Rounds and Visiting Professorship, Barrow Neurological Institute, Phoenix, AZ, February 2018
265. Endovascular Therapy For Acute Ischemic Stroke; Current Status And Future Directions. Eric Raps Annual Memorial Lecture. University of Pennsylvania Health System, Department of Neurology, Philadelphia, PA, February 2018
266. Should We Treat Patients With Thrombectomy Beyond 6 Hours? Should We Use Time Limits At All? Henry J Barnett Annual Memorial Lecture, Ottawa Stroke Network and Department of Clinical Neurosciences, Ottawa, Canada, March 2018
267. Endovascular Therapy for Acute Ischemic Stroke. Adapting Stroke Systems of Care to the New Standard. American College of Cardiology (ACC) Annual Meeting, Orlando, FL, March 2018
268. The Dawn of a New Era in The Treatment Of Acute Stroke Due To Large Vessel Occlusion. Jefferson Medical College, Annual Neurovascular Symposium. Philadelphia, PA, March 2018
269. Course faculty. Roundtable discussion panelist. Live Interventional Neuroradiology and Neurosurgery Course (LINNC), New York, March 2018
270. Reperfusion Therapy for Acute Ischemic Stroke: Which, Why, When. 3rd Annual ACCESS Telemedicine Conference. Santa Fe, NM, April 2018
271. Should We Treat Patients Beyond 6 Hours ? The 14th China Forum Of Cerebrovascular Diseases (CFCVD), Beijing, China, April 2018

272. The Dawn Trial and Future Directions In Endovascular Therapy For Stroke. University of Texas Houston. Mischel Neurosciences Institute. The Sixth Annual Neuro ICU Symposium. Houston, TX, April 2018
273. Thrombectomy For Anterior Circulation Stroke Beyond 6 Hours From Time Last Known Well: Primary Results Of Aurora (Analysis of Pooled Data from Randomized Studies of Thrombectomy More than 6 hours After Last Known Well ), Presidential Plenary Session, 4 th European Stroke Organization Conference (ESOC), Gothenburg, Sweden, May 2018
274. After DAWN and DEFUSE III should we still use time windows to select patients for thrombectomy? 22-nd Meeting of the Catalan Neurological Association Meeting, Barcelona, May 2018
275. Experience with the DAWN Trial and Creating a Large Regional Stroke System. Key Note Speaker. Brain Attack!2018. Washington University School of Medicine, St. Louis, MO, June 2018
276. Direct Evaluation Of Thrombectomy Patients In The Angiography Suite. LINNC Meeting, Paris, France, June 2018
277. Direct Evaluation Of Thrombectomy Patients In The Angiography Suite. 4th Annual Conference of Chinese Stroke Association (CSA) & Tiantan International Stroke Conference 2018 (TISC 2018), Beijing, China, June 2018
278. Thrombectomy beyond 6 hours of last seen well. Insights from DAWN, DEFUSE 3 and AURORA. 4th Annual Conference of Chinese Stroke Association (CSA) & Tiantan International Stroke Conference 2018 (TISC 2018), Beijing, China, June 2018
279. Optimal Imaging of Acute Ischemic Stroke in 2018 and Beyond and DAWN+DEFUSE 3 + AURORA. Simposio Internacional de Neurología de Santiago 2018. Santiago, Chile, July 2018
280. Direct Evaluation Of Thrombectomy Patients In The Angiography Suite. Siemens Vascular Imaging Headquarters Lecture. Forchheim, Germany, July 2018
281. Organizational Corner: Should we go straight to the angio suite? 10-th ESMINT Conference, Nice, France, Sept 2018
282. Update on “IN EXTREMIS” 10-th ESMINT Conference, Nice, France, Sept 2018

283. Management strategies for Large Hemispheric Infarction. Biogen Symposium. 16-th Neurological Critical Care Meeting, Boca Raton, Florida, Sept 2018
284. Future Directions in Endovascular Therapy For Stroke. Second Turkish Stroke Academy Meeting, Istanbul, Turkey, Sept 2018
285. Acute Stroke Interventions in Basilar Artery Occlusion. Second Turkish Stroke Academy Meeting, Istanbul, Turkey, Sept 2018
286. Who Should Perform Thrombectomy For Stroke? The Us Perspective. The XXI Romanian Stroke Conference. Bucharest, Romania, October 2018
287. Carotid Revascularization-Management Update. The XXI Romanian Stroke Conference. Bucharest, Romania, October 2018
288. Thrombectomy beyond 6 hours of last seen well. Insights from DAWN, DEFUSE3 and AURORA. Grand Rounds. Weil Cornell Medical Center, New York, NY, Oct 2018
289. Endovascular Therapy for Acute Ischemic Stroke. Stroke Systems of Care: Mothership vs. Drip & Ship. Advocate Brain & Spine Institute 3rd Annual Conference, October 2018
290. Where should thrombectomy be done—centralized vs distributed model, appropriateness of current guidelines. The 14th International Symposium on Thrombolysis, Thrombectomy and Acute Stroke Therapy (TTST). Houston, TX, October 2018
291. Summary of new data from clinical trials of thrombectomy since ISC or ESOC, especially if presented at WSC. The 14th International Symposium on Thrombolysis, Thrombectomy and Acute Stroke Therapy (TTST). Houston, TX, October 2018
292. Selection of Patients For Thrombectomy - In Favor Of A Simplified Paradigm. UPMC Stroke Update XXII. Pittsburgh, PA, October 2018
293. Endovascular Therapy For Acute Ischemic Stroke Current Status And Future Directions. Research Update in Neuroscience for Neurosurgeons (RUNN Course). Woods Hole, MA, November 2018
294. A new DAWN in the treatment of acute ischaemic stroke. Hong Kong Neurological Society's Annual Scientific Meeting. Hong Kong, November 2018
295. Intravenous t-PA for stroke with unknown symptoms onset: more evidence is needed. XI-th Meeting of the Society of Vascular and Interventional Neurology (SVIN), San Diego, CA, November 2018

296. Current challenges and future directions in endovascular therapy for stroke. Grand Rounds University of Iowa Medical Center, January 2019
297. Course faculty. Roundtable discussion panelist. Live Interventional Neuroradiology and Neurosurgery Course (LINNC), Miami, FL, March 2019
298. Course faculty. Roundtable discussion panelist. SLICE, Tel Aviv, April 2019
299. Imaging base selection for Thrombectomy in the early vs late time window. 15<sup>th</sup> Western China stroke intervention conference, Beijing, China, April 2019
300. Imaging selection of patients for thrombectomy beyond 6 hours of last seen well. CT/CTA is good enough. European Course Barcelona, Spain, April 2019
301. Revascularization of the occluded extracranial carotid artery without tandem intracranial occlusion. European Course in Interventional Neuroradiology, Barcelona, Spain, April 2019
302. Combining reperfusion with neuroprotection. Are we ready for prime time? European Course in Interventional Neuroradiology. Barcelona, Spain, May 2019
303. Direct carotid puncture in acute stroke interventions. World Live Neurovascular Conference, Barcelona, Spain, May 2019
304. Stenting/angioplasty in acute stroke interventions. World Live Neurovascular conference, Barcelona, Spain, May 2019
305. Moderator/Director – Acute Stroke Intervention. World Live Neurovascular Conference, Barcelona, Spain, May 2019
306. Combining reperfusion with neuroprotection. The next frontier in large vessel occlusion stroke treatment. LINNC, Paris, June 2019
307. How much imaging do we need to select acute stroke patients for thrombectomy, 5th China and Chinese Stroke Association & Tiantan International Stroke Conference. Beijing, China, June 2019.
308. Romanian Society of Interventional Neuroradiology – multidisciplinary management of stroke conference. The impact of thrombectomy on patient's quality of life. Societal implications. Bucharest, Romania, July 2019.
309. Course faculty. Roundtable discussion panelist. SLICE, Nice, France, September 5,6, 2019

310. The Stroke Society of Australasia (SSA) 29th Annual Scientific Meeting. Thrombectomy beyond the 6 hour time window. Insights from an individual patient level meta-analysis (AURORA) Canberra Australia, September 2019.
311. The Stroke Society of Australasia (SSA) 29th Annual Scientific Meeting. How much imaging is needed to select acute stroke patients for thrombectomy? Keynote speaker. Canberra Australia, September 2019.
312. The Stroke Society of Australasia (SSA) 29<sup>th</sup> Annual Scientific Meeting. Debate: Do we treat LVO patients with pre-morbid mRS of 3 and above? (In favor). Canberra Australia, September 2019.
313. The Stroke Society Australasia (SSA) 29<sup>th</sup> Annual Scientific Meeting. Clinical update and implications for the future of ICAD treatment. Canberra Australia, September 2019.
314. 20<sup>th</sup> Annual Neuroradiology symposium. What imaging and time window. Toronto, September 2019
315. 20<sup>th</sup> Annual Neuroradiology symposium. Debate chronic vessel occlusions to revascularize or not. (In favor). Toronto, September 2019
316. European Society of Minimally Invasive Neurological Therapy. (ESMINT). How do I approach patients in the late time window? Nice, France, September 2019
317. The 22<sup>nd</sup> Annual Romanian National Stroke conference. The Next Frontier In Large Front Vessel Occlusion Stroke Treatment. Bucharest, Romania, October 2019
318. The 22<sup>nd</sup> Annual Romanian National Stroke conference. How Much Imaging Do We Need To Select Acute Stroke Patients For Thrombectomy According To Time Window? Bucharest, Romania, October 2019
319. The 9<sup>th</sup> International conference on intracranial atherosclerosis (ICAS 2019), Endovascular Therapy For Acute Stroke Due To Tandem and Intracranial Atherosclerotic Disease. Los Angeles, CA, November, 2019
320. Collaterals 2019, 6<sup>th</sup> Symposium to Collaterals to the Brain. State of Acute Stroke Care in Romania. Los Angeles, CA, November 2019.
321. Society of Vascular Interventional Neurology, 12<sup>th</sup> annual meeting (SVIN), Stroke Center Day, Role in LVO Selection and Clinical Trials. Atlanta, GA, November 2019

322. Society of Vascular Interventional Neurology, 12<sup>th</sup> Annual Meeting (SVIN)  
Main meeting, Who Should Perform Thrombectomy? – Only  
Neurointerventionalists. Atlanta, GA November 2019.
323. The 55th Nishi-Kanto Neuro IVR seminar. The Next Frontier in Large Front  
Vessel Occlusion Stroke Treatment. Saitama, Japan, December 2019
324. Visiting Professorship Sekishinkai Hospital. An overview of Stroke Services at  
Cooper University Hospital. Saitama, Japan, December 2019
325. Cerenovus Clots 5.0, Managing Recruitment in Acute Stroke Endovascular  
Trials. Dublin, Ireland, December 2019
326. iCure Stroke 2020. Beyond the Evidence – Clinical Practice Dilemmas Outside  
Trials, Istanbul, Turkey, February 2020.
327. iCure Stroke 2020. Beyond the Evidence – Large Stroke Is there still a benefit?  
Istanbul, Turkey, February 2020.
328. iCure Stroke 2020. Beyond the Evidence – The Way of Access Moderation of  
Workshop, Istanbul, Turkey, February 2020.
329. iCure Stroke 2020. Beyond the Evidence – Dissections Moderation of  
Workshop, Istanbul, Turkey, February 2020.
330. iCure Stroke 2020. Beyond the Evidence - Resistant Thrombectomies and Re-  
Occlusion, Istanbul, Turkey, February 2020.
331. iCure Stroke 2020. Beyond the Evidence - Post-Operative Management of  
Stroke Moderation of Workshop, Istanbul, Turkey, February 2020.
332. SNIS 17 annual meeting – Imagining triage for LVO, delivery fast and efficient  
stroke care. Virtual – August, 2020.
333. 2<sup>nd</sup> Annual International Congress on the Future of Neurology. New York, NY.  
Virtual – September 25, 2020.
334. Endovascular therapy for acute ischemic stroke - University of Utah  
neurosurgery grand rounds – virtual – October 21, 2020.
335. SLICE conference, Panelist discussant, virtual
336. Late Window Thrombectomy Debate; NCCT; Stop Over Selected. AHA/SVIN  
Virtual – October 21, 2020.

337. UMDNJ – Endovascular therapy for stroke. what have we learned and where are we heading. Newark, NJ Virtual – November 20, 2020.
338. ISC Show time – virtual - speaker introduction and panel information – American Heart Association, Virtual – March 17, 2021
339. India National Stroke Confernce – Virtual – March 19, 2021
340. ICA Occulsions - Stroke Symposium – Cooper University Health Care, Camden, NJ – Virtual – May 5, 2021
341. Neurorehabilitation Whats New with Augmented Reality – Valley Baptist Medical Center, Harlingen, Fifth Annual South Texas Comprehensive Stroke Care Symposium – Virtual – May 7, 2021
342. The use of Tenecteplase instead of tPA - both the background and your practical experience. – SAP symposium virtual, Virtual – May 20, 2021.
343. MT Technique: How to Start Radial vs. Femoral, How many recanalization attempts: When to Stop? Moscow – Virtual – May 14, 2021.
344. Strategy of Large Core Thrombectomy and Progress of LASTE - Beijijg, China – Virtual – July 7, 2021.
345. Endovascular Therapy for Stroke. What have we learned and Where are we Heading? Rush University Grand Rounds, Virtual – July 13, 2021.
346. AIS Innovation Forum 2021. “Current status of clinical research in the United States”, Tianjin, China, Virtual – July 23, 2021.
347. SNIS, Colorado Springs, CO. July 26 – July 27, 2021.
348. Grand Rounds, Endovascular Therapy for Acute Stroke; Current Status and Future Directions - Boston University, Virtual. September 7, 2021.
349. LINNC Paris "Is it time or not to include intra arterial lytics as part of the post thrombectomy treatment? – Paris, France, September 13 - September 16, 2021
350. Fourth Annual Acute Neurovascular Symposium “Overview of endovascular Therapy for Acute Stroke”. UPMC Altoona, Pittsburgh, PA, September 17, 2021
351. SLICE –Should We Be Treating Patients With Large Baseline Core? Montpellier, France, October 5 – October 7, 2021

352. Congress of Neurological Surgeons Annual Meeting – “Controversies in Thrombolysis with Thrombectomy Austin – October 16, 2021
353. 8<sup>th</sup> International Symposium on Collaterals to the Brain 2021, Panelist, Los Angeles, CA – November 2 – November 3, 2021.
354. Detroit Stroke Conference: "Is Penumbral Imaging Overrated? Virtual, November 3, 2021
355. Neurotrauma Sciences (NTS) Scientific Advisory Board (SAB) meeting, November 4 – November 5, 2021
356. SVIN, AZ, “Clinical Exam is Still the Gold Standard” November 17 – November 20, 2021
357. Early Investigator Virtual Workshop WSO/ESO/GAINS meeting, "Inspiration from Global Stroke Researchers - From anecdotal experience to adoption into guidelines. Lessons from conducting randomized thrombectomy trials for stroke"Virtual. – December 4, 2021
358. European Society of Neuroradiology Diagnostic and Interventional 2<sup>nd</sup> Cycle Module 1 on “Ischemic Stroke”. Virtual – December 9 to December 11, 2021.
359. International Stroke Conference, New Orleans, LA February 2-11, 2022.
360. AAN Neurology Department Chair Summit. Chicago, IL. March 6 – March 7, 2022.
361. LINNC Americas 2022. Miami, Florida, March 28 – March 29, 2022.
362. World Live Neurovascular Conference, Washington DC, May 11-13, 2022.
363. LINNC Paris 2022, May 30 – June 1, 2022.
364. Scientific Sessions of the Stroke Unit of the Hospital Clinic of Barcelona, Barcelona, Spain, June 22, 2022.
365. Chinese Interventional Neurology Conference 2022&18th International Stroke Summit (CINC&ISS 2022) in Nanjing, July 22-24<sup>th</sup>, 2022.
366. SNIS 19<sup>th</sup> Annual Meeting, Toronto, Ontario, Canada, July 25-28, 2022.
367. ISCHEMIC STROKE Symposium, Posterior Circulation Thrombectomy Trials Results. Jacksonville, FL, September 16, 2022.

368. ISCHEMIC STROKE Symposium, Stroke Thrombectomy and Neuro Protection, Jacksonville, FL, September 16, 2022.
369. ISCHEMIC STROKE Symposium, Stroke Case Discussion, Jacksonville, FL September 16, 2022.
370. 2022 EMS Nursing and Stroke Symposium, Direct to Mechanical Thrombectomy, Camden, NJ September 28, 2022.
371. 7<sup>th</sup> MENA-SINO congress, Cairo, Egypt, October 5, 2022
372. Georgia, October 6, 2022
373. SLICE, France, October 13 – 15, 2022
374. Hospital Universitario de la Fundacion Santa Fe de Bogota, Invited speaker, Bogota Columbia, October 20 – 22, 2022
375. SVIN 2022, Los Angeles, CA, November 16 – 20, 2022
376. Cerenovus COLTS 7.0 Meeting, Barcelona, Spain, December 9-10, 2022.
377. International Stroke Conference, Dallas, TX, February 6-10, 2023.
378. \_\_\_\_\_, Los Gatos, CA, February 27-29, 2023.
379. LINNC Seminar 2023 - Americas Edition, Miami, Florida, March 16 – 17, 2023.
380. 7<sup>th</sup> Annual South Jersey Neurovascular and Stroke Program, Voorhees, NJ, May 16, 2023.
381. European Stroke Meeting, May 23-28, 2023.
382. LINNC Paris 2023, June 5-7, 2023, Paris.
383. Universidade De Santiago De Compostela, VI International Symposium, Mechanical Thrombectomy in Acute Stroke Therapy, Spain, June 28-29, 2023.
384. 5<sup>th</sup> Annual Stroke and Neurocritical Care Symposium, “Thrombectomy for 6 to 24 Hours After Stroke Due to Basilar Artery Occlusion”, Virtual, Robert Wood Johnson, September 22, 2023.
385. World Stroke Organization, 15<sup>th</sup> World Stroke Congress, “Paradigm Shifts in the Management of Acute Ischemic Stroke Top 5 Publications Not to have missed since WSC 2022”, Toronto, Canada, October 10-12, 2023.

386. Slice Worldwide Congress 2023, Montpellier, October 17-19,2023.

387. Maryland Comprehensive Stroke Conference, Maryland, November 3, 2023.

388. Cerenovus CLOTS 8.0, Miami Florida, December 1, 2023.

**TEACHING:**

**Medical Students:** Mentor for Peter Syre. Medical Student Mentorship Program: Area of Concentration in Neuroscience Program. Project title: Stent size selection and placement in cerebrovascular diseases.

**Clinical Postdoctoral fellows at the University of Pittsburgh Medical Center:**

| Dates            | Name                  | Fellowship                                     | Position following graduation                                                                    |
|------------------|-----------------------|------------------------------------------------|--------------------------------------------------------------------------------------------------|
| 07/2001-06/2002  | Maxim Hammer          | Vascular Neurology<br>Clinical Fellow          | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                |
| 07/2002 -12/2002 | Yevgeny Shelshkov, MD | Vascular Neurology<br>Clinical Fellow          | Private practice, Washington<br>PA                                                               |
| 07/2003-06/2004  | Ashish Tayal, MD      | Vascular Neurology<br>Clinical Fellow          | Allegheny General Hospital<br>Medical Director of Stroke                                         |
| 07/2004-06/2005  | Nirav Vora, MD        | Vascular Neurology<br>Clinical Fellow          | Assistant Professor,<br>St Louis University,<br>St Louis, MO                                     |
| 07/2004 -06/2006 | Rishi Gupta, MD       | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor Cleveland<br>Clinic, Cleveland , OH                                          |
| 07/2005-06/2006  | Ajit Thomas, MD       | Interventional<br>Neurology<br>Fellowship      | Assistant Professor<br>Beth Israel Deaconess<br>Hospital<br>Harvard Medical School,<br>Boston MA |
| 07/2006 -01/2007 | Anand Germanwala, MD  | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor<br>University of North Carolina,<br>Chapel Hill, NC                          |
| 07/2005 -06/2006 | Vivek Reddy, MD       | Vascular Neurology<br>Clinical Fellow          | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                |
| 07/2005-06/2007  | Nirav Vora, MD        | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor,<br>St Louis University,<br>St Louis, MO                                     |

|                  |                     |                                                |                                                                                                                              |
|------------------|---------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 07/2006-06/2007  | Ridwan Lin, MD      | Vascular Neurology<br>Clinical Fellow          | Staff Vascular Neurologist<br>and Interventionalist,<br>Riverside Medical Center,<br>Columbus, OH                            |
| 07/2007 -06/2008 | Syed Zaidi, MD      | Vascular Neurology<br>Clinical Fellow          | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                                            |
| 07/2007 -06/2009 | Brian Jankowitz, MD | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor, UPMC<br>University of Pittsburgh<br>Medical Center                                                      |
| 11/07 -10/2009   | Aleu, Aitziber, MD  | Interventional<br>Neuroradiology<br>Fellowship | Staff Vascular Neurologist<br>and Interventionalist, Hospital<br>Germans Trias y Pujol,<br>University of Barcelona,<br>Spain |
| 7/2007-present   | Ridwan Lin, MD      | Interventional<br>Neuroradiology<br>Fellowship | Staff Vascular Neurologist<br>and Interventionalist,<br>Riverside Medical Center,<br>Columbus, OH                            |
| 07/2008 -06/2009 | Mouhammad Jumaa, MD | Vascular Neurology<br>Clinical Fellow          | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                                            |
| 07/2008 -06/2010 | Dean Kostov, MD     | Interventional<br>Neuroradiology<br>Fellowship | Private Practice, Richmond,<br>Virginia                                                                                      |
| 07/2008 -06/2010 | Hilal Kanaan, MD    | Interventional<br>Neuroradiology<br>Fellowship | Private Practice,<br>Greenborough, North<br>Carolina                                                                         |
| 07/2009-6/2010   | Amer Malik, MD      | Vascular Neurology<br>Clinical Fellow          | Associate Professor,<br>University of Miami, Jackson<br>Memorial Hospital                                                    |
| 07/2009-6/2010   | Nishant Ranawat, MD | Vascular Neurology<br>Clinical Fellow          | Private Practice, Duluth, MN                                                                                                 |
| 07/2010-present  | Mouhammad Jumaa, MD | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor,<br>University Of Toledo,<br>Medical Center                                                              |
| 07/2010-present  | Syed Zaidi, MD      | Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor,<br>University Of Toledo,<br>Medical Center                                                              |
| 07/2010-6/2011   | Crystal Tung, MD    | Vascular Neurology<br>Clinical Fellow          | Staff Vascular Neurologist,<br>Allegheny General Hospital                                                                    |
| 07/2010-6/2011   | Oana Spataru        | Vascular Neurology<br>Clinical Fellow          | Fellow, Neurological Critical<br>Care, California Pacific,<br>Medical Centerl, San<br>Francisco, CA                          |

|                 |                             |                                                                                             |                                                                                                          |
|-----------------|-----------------------------|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 07/2011-6/2012  | Matt Starr, MD              | Vascular Neurology<br>Clinical Fellow                                                       | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                        |
| 07/2011-6/2014  | Ashutosh Jadhav, MD,<br>PhD | Vascular Neurology<br>Clinical Fellow and<br>Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                        |
| 07/2011-6/2014  | Anat Horev, MD              | Vascular Neurology<br>Clinical Fellow and<br>Interventional<br>Neuroradiology<br>Fellowship | Assistant Professor<br>Beer Sheva University<br>Medical Center, Israel                                   |
| 07/2011-6/2012  | Sunanda Nanduri, MD         | Vascular Neurology<br>Clinical Fellow                                                       | Baystate Health Medical<br>Center, Springfield, MA                                                       |
| 07/2012-6/2014  | Dan Victor Giurgiutiu, MD   | Vascular Neurology<br>Clinical Fellow and<br>Interventional<br>Neuroradiology<br>Fellowship | Attending<br>Neurointerventionalist and<br>Stroke neurologist,<br>Winchester Hospital,<br>Winchester, VA |
| 07/2012-6/2013  | Victoria Totoraitis         | Vascular Neurology<br>Clinical Fellow                                                       | Assistant Professor<br>University of Pittsburgh<br>Medical Center                                        |
| 07/2011-6/2013  | Guillermo Linares, MD       | Interventional<br>Neuroradiology<br>Fellowship                                              | Assistant Professor, Temple<br>University Hospital,<br>Philadelphia, PA                                  |
| 07/2013-6/2014  | Chris Streib, MD            | Vascular Neurology<br>Clinical Fellow                                                       | Assistant Professor,<br>University of Minnesota                                                          |
| 07/2013-6/2014  | Srikant Rangaraju           | Vascular Neurology<br>Clinical Fellow                                                       | Assistant Professor, Emory<br>University                                                                 |
| 07/2013-6/2016  | Amin Aghaebrahim, MD        | Vascular Neurology<br>Clinical Fellow and<br>Interventional<br>Neuroradiology<br>Fellowship | Baptist Health Neuroscience<br>Center, Jacksonville, Florida                                             |
| 07/2012-07/2013 | Ramesh Grandhi, MD          | Interventional<br>Neuroradiology<br>Fellowship                                              | Assistant Professor,<br>University of Utah Medical<br>Center                                             |
| 07/2012-6/2014  | Phillip Parry, MD           | Interventional<br>Neuroradiology<br>Fellowship                                              | David Grant USAF Medical<br>Center, Fairfield, California                                                |
| 07/2012-6/2014  | Paul Richard, MD            | Interventional<br>Neuroradiology<br>Fellowship                                              | NASA Neuroscience Spine<br>Associates, Naples, Florida                                                   |
| 07/2015-6/2017  | David Panczykowsky, MD      | Interventional<br>Neuroradiology                                                            | Instructor in Neurosurgery,<br>UT Houston, Houston, TX                                                   |

|                |                             |                                                                                             |                                                                                      |
|----------------|-----------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                |                             | Fellowship                                                                                  |                                                                                      |
| 07/2015-6/2017 | Gregory Weiner, MD          | Interventional<br>Neuroradiology<br>Fellowship                                              | Assistant Professor<br>Neurosurgery, Geisinger<br>Health System, Wilkes Barre,<br>PA |
| 07/2015-6/2018 | Cynthia Kenmuir, MD,<br>PhD | Vascular Neurology<br>Clinical Fellow and<br>Interventional<br>Neuroradiology<br>Fellowship | UPMC Altoona, Department                                                             |
| 07/2016-6/2018 | William Ares                | Interventional<br>Neuroradiology<br>Fellowship                                              | NorthShore University<br>Healthsystem.                                               |

**SERVICE:**

| Dates           | Position                                                                                                                                                                       |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7/2008 -5/2010  | Co-Director UPMC Stroke Institute<br>University of Pittsburgh Medical Center                                                                                                   |
| 7/2004 – 3/2013 | Co-Director, UPMC Center for Neuroendovascular therapy<br>University of Pittsburgh Medical Center                                                                              |
| 2005-2013       | Member, UPMC Technology and Innovative Practice Assessment<br>Committee                                                                                                        |
| 7/2004- 7/2013  | Fellowship Program Director<br>UPMC Center for Neuroendovascular Therapy,<br>University of Pittsburgh Medical Center                                                           |
| 7/2002 – 1/2007 | Director of Vascular Neurology Fellowship Program<br>Department of Neurology Stroke Institute<br>University of Pittsburgh Medical Center                                       |
| 2003- 2005      | Member Publication Committee WASID (Warfarin vs. Aspirin in<br>symptomatic intracranial disease study). Sponsor: NIH                                                           |
| 2003 – 2004     | Member National Steering Committee WASID (Warfarin vs.<br>Aspirin in symptomatic intracranial disease study)                                                                   |
| 2008 - 2011     | Society of Vascular and Interventional Neurology, Secretary                                                                                                                    |
| 2011- 2013      | Society of Vascular and Interventional Neurology, Vice-President<br>( President elect)                                                                                         |
| 2008 - 2013     | Member, Board of Directors, American Society of Neuroimaging                                                                                                                   |
| 2007 - 2011     | Associate Editor, Interventional Section, Journal of Neuroimaging                                                                                                              |
| 2006 - present  | Society of Vascular and Interventional Neurology, Founding<br>Board Member                                                                                                     |
| 2006 - 2010     | Project Work Group Leader, American Academy of Neurology,<br>Interventional Neurology Section                                                                                  |
| 2005 - present  | Member, Executive Committee, American Academy of<br>Neurology, Interventional Neurology Section                                                                                |
| 2008- 2009      | Member, Executive Committee, RETRIEVE Trial (Randomized<br>trial of Endovascular Treatment of Acute Ischemic Stroke Versus<br>Medical management). Sponsor: Concentric Medical |
| 2008- 2012      | Member, Steering Committee, Solitaire Flow Restoration in Acute<br>Stroke (SWIFT) Trial. Sponsor: eV3                                                                          |
| 2010-2012       | Member, Steering Committee, MR RESCUE Study                                                                                                                                    |
| 2010-present    | Member, Editorial Board, Stroke                                                                                                                                                |
| 5/2010-2019     | Director UPMC Stroke Institute,<br>University of Pittsburgh Medical Center                                                                                                     |
| 2011-present    | Member, Editorial Board, Journal of Neuroimaging                                                                                                                               |
| 2013-present    | Member, Editorial Board, Interventional Neurology                                                                                                                              |
| 2012-2015       | Member, Global Advisory Board, Covidien Vascular                                                                                                                               |
| 2012-2017       | Member, American Heart Association, Allegheny Division,<br>Board of Directors                                                                                                  |

|                |                                                                                                                                                                                                                                                                                                                                        |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2012-2016      | Global Principal Investigator, A Randomized Trial of Revascularization with SOLITAIRE FR® device vs. best medical therapy in the treatment of acute stroke due to anterior circulation large vessel occlusion presenting within eight-hours of symptoms onset (REVASCAT) Study                                                         |
| 2012-present   | Global Principal Investigator, DWI/PWI and CTP Assessment in the Triage of Wake-Up and Late Presenting Strokes Undergoing Neurointervention (DAWN) Study                                                                                                                                                                               |
| 2012-2015      | Member Steering Committee, Solitaire FR With the Intention For Thrombectomy as Primary Endovascular Treatment for Acute Ischemic Stroke (SWIFT PRIME) Study                                                                                                                                                                            |
| 2013-2019      | Director, UPMC Center for Neuroendovascular Therapy                                                                                                                                                                                                                                                                                    |
| 2013-2015      | Member, Steering Committee, Endovascular treatment for Small Core and Anterior circulation Proximal occlusion with Emphasis on minimizing CT to recanalization times (ESCAPE) Study                                                                                                                                                    |
| 2013-2016      | Member Program Committee, Chair Neuroendovascular Section, American Heart Association, International Stroke Conference                                                                                                                                                                                                                 |
| March 2013     | Co-chair: Workshop on Recommendations For Endovascular Therapies, Endovascular Trials: Clinical and Regulatory Issues, STAIR Meeting March 2013, Washington, DC                                                                                                                                                                        |
| 2013-2015      | President, Society of Vascular and Interventional Neurology (SVIN)                                                                                                                                                                                                                                                                     |
| 2015           | Chair: Workshop on Recommendations For Next Generation Endovascular Therapy Trials, STAIR Meeting October 2015, Bethesda, MD                                                                                                                                                                                                           |
| 2011-2017      | Executive Committee Member, Society of Vascular and Interventional Neurology (SVIN)                                                                                                                                                                                                                                                    |
| 2014-present   | Member, Carotid Revascularization Endarterectomy vs. Stent 2 (CREST 2) Trial, Interventional Credentialing Committee                                                                                                                                                                                                                   |
| 2015-present   | Member, Data Safety Monitoring Board: A Prospective, Multi-center, Single Arm Study to Evaluate the Safety and Effectiveness of the CODMAN ENTERPRISE® Vascular Reconstruction Device and Delivery System when Used in Conjunction with Endovascular Coil Embolization in the Treatment of Wide-necked Saccular Intracranial Aneurysms |
| 2015- 2019     | Member, NIH Stroke Trial Network, Interventional Advisory Committee                                                                                                                                                                                                                                                                    |
| 2015-2018      | Inaugural Chair, Neuroendovascular Surgery Advisory Council (NESAC), Committee on Advanced Subspecialty Training (CAST), Society of Neurological Surgeons                                                                                                                                                                              |
| 2018 - Present | Member, Neuroendovascular Surgery Advisory Council (NESAC), Committee on Advanced Subspecialty Training (CAST), Society of Neurological Surgeons                                                                                                                                                                                       |
| 2015 - Present | Member, Executive Committee: Randomized Trial Comparing Transfer to the Closest Local Stroke Center vs. Direct Transfer to Endovascular Stroke Center of Acute Stroke Patients with                                                                                                                                                    |

|                |                                                                                                                                                                                                                                                                                                                     |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Suspected Large Vessel Occlusion in the Catalan Territory (RACECAT) Study                                                                                                                                                                                                                                           |
| 2015 - present | Co-Principal Investigator. Basilar Occlusion Chinese Endovascular (BAOCHE) Study                                                                                                                                                                                                                                    |
| 2017 - present | Co-Principal Investigator: IN EXTREMIS LASTE Study (Evaluation of Acute Mechanical Revascularisation in Large Stroke (ASPECTS 0-5) with Large Vessel Occlusion within 6.5 hours after stroke onset or Last Known Well. Large Stroke Therapy Evaluation)                                                             |
| 2017- present  | Member, Executive Committee: IN EXTREMIS MOSTE Study IN-EXTREMIS-MOSTE (Evaluation of Acute Mechanical Revascularization in Large Vessel Occlusion Stroke with Minor Symptoms (NIHSS <6) Minor Stroke Therapy Evaluation                                                                                            |
| 2018- 2020     | Member, Data Safety Monitoring Board: A Prospective, Multi-Center, Single Arm Study To Evaluate The Safety And Effectiveness Of The Pulserider® Aneurysm Neck Reconstruction Device Used In Conjunction With Endovascular Coil Embolization In The Treatment Of Wide-Neck Bifurcation Intracranial Aneurysms (NAPA) |
| 2018-2022      | Chair, Data Safety Monitoring Board: CHemical OptImization of Cerebral Embolectomy in patients with acute stroke treated with mechanical thrombectomy (CHOICE)                                                                                                                                                      |
| 2020           | Principal Investigator: DIRECT (Delay Avoiding Primary Evaluation For Thrombectomy Of Acute Stroke Patients With Large Vessel Occlusion In The Angiography Suite)<br>A prospective multi-center, cluster randomized controlled trial                                                                                |
| 2016 - 2019    | Chair, UPMC Stroke System of Care                                                                                                                                                                                                                                                                                   |
| 2016 – present | Member, World Stroke Organization, Industry Committee                                                                                                                                                                                                                                                               |
| 2016 - present | Member Advisory Board. Anaconda Biomed                                                                                                                                                                                                                                                                              |
| 2017– present  | Member, Scientific Advisory Board, FreeOx Biotech                                                                                                                                                                                                                                                                   |
| 2017 - present | Member, Scientific Advisory Board, Route 92 Medical Inc.                                                                                                                                                                                                                                                            |
| 2018 - present | Member, Scientific Advisory Board, Corindus Vascular Robotics                                                                                                                                                                                                                                                       |

### **Continuing Medical Education Course Directorships:**

|      |                                                                                                                                                        |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2008 | Meeting Chair. Society for Vascular and Interventional Neurology (SVIN) 2nd Annual Meeting. October 2008, Miami, Florida                               |
| 2009 | Course Director. Endovascular Therapy for Ischemic Cerebrovascular Diseases. American Society of Neuroimaging Meeting, January 2009, Orlando, Florida. |
| 2009 | Course Director. Interventional Therapy for Acute Ischemic Stroke. American Academy of Neurology Meeting, Seattle, Washington.                         |

|             |                                                                                                                                    |
|-------------|------------------------------------------------------------------------------------------------------------------------------------|
| 2009        | Symposium Co-chair. Integrated Neuroscience Symposium. American Academy of Neurology (AAN) Meeting, May 2009, Seattle, Washington. |
| 2010        | Course Director. Interventional Therapy for Acute Ischemic Stroke. American Academy of Neurology Meeting, Toronto, Canada          |
| 2010        | Course Director, UPMC Stroke Update, The Westin Convention Center, Pittsburgh, PA                                                  |
| 2011        | Course Director, UPMC Stroke Update, The Westin Convention Center, Pittsburgh, PA                                                  |
| 2011        | Course Director. AAN Education Program. Interventional Neurology. 63rd Annual Meeting 2011, Honolulu, HI,                          |
| 2012        | Course Director. Interventional Therapy for Acute Ischemic Stroke. American Academy of Neurology Meeting, New Orleans, LA          |
| 2012        | Course Director, UPMC Stroke Update, The Westin Convention Center, Pittsburgh, PA                                                  |
| 2013        | Course Director. Interventional Therapy for Acute Ischemic Stroke. American Academy of Neurology Meeting, San Diego, California    |
| 2013        | Course Director, UPMC Stroke Update, The Wyndham Grand , Pittsburgh, PA                                                            |
| 2014        | Section Chair, Acute Endovascular Treatment, International Stroke Conference, ISC 2014 San Diego, California                       |
| 2014        | Course Director, UPMC Stroke Update, The Wyndham Grand, Pittsburgh, PA                                                             |
| 2015        | Section Chair, Acute Endovascular Treatment, International Stroke Conference, ISC 2015, Nashville, TN                              |
| 2015        | Course Director, UPMC Stroke Update, The Wyndham Grand, Pittsburgh, PA                                                             |
| 2016        | Section Chair, Acute Endovascular Treatment, International Stroke Conference, ISC 2016, Los Angeles, California                    |
| 2016        | Course Director, UPMC Stroke Update, The Wyndham Grand, Pittsburgh, PA                                                             |
| 2016 – 2019 | Chair, UPMC/ Xuanwu Hospital Beijing/China Neurovascular Section, Bi-monthly Teleconference Series                                 |
| 2016        | Course Director, 19-th Annual National Stroke Conference, Acute Endovascular Therapy Symposium, Bucharest, Romania                 |
| 2017        | Course Director, UPMC Stroke Update, The Wyndham Grand, Pittsburgh, PA                                                             |
| 2017        | Course Director, 20-th Annual National Stroke Conference, Acute Endovascular Therapy Symposium, Bucharest, Romania                 |
| 2018        | Course Co-Director, UPMC Stroke Update, The Westin Convention Center, Pittsburgh, PA                                               |
| 2018        | Course Director, 21-st Annual National Stroke Conference, Acute Endovascular Therapy Symposium, Bucharest, Romania                 |

|           |                                                                                                           |
|-----------|-----------------------------------------------------------------------------------------------------------|
| 2020-2022 | Vice Chair, International Stroke Conference of the American Heart Association/American Stroke Association |
| 2022      | Chair, International Stroke Conference of the American Heart Association/American Stroke Association      |