

Date of birth: February 26, 1965.

Nationality: German; Romanian

HIRSCH: 46; <https://www.webofscience.com/wos/author/rid/E-2541-2013>

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Education:

1976–1981 **Diploma** in Biochemistry, University of Bucharest, Romania

1988–1990 **PhD** in Biochemistry Institute of Biochemistry, University of Karlsruhe, Germany

1990–1992 **Postdoc**, Ethel Percy Andrus Gerontology Center, University of Southern California, Los Angeles, USA

1999 **Habilitation** in Internal Medicine and Experimental Neurology, Medical Faculties of Erlangen-Nuerenberg and Greifswald, Germany

Positions held:

1988–1990 **Research Assistant**, Institute of Organic Chemistry, University of Karlsruhe, Germany

1990–1991 **Research Assistant**, Ethel Percy Andrus Gerontology Center, University of Southern California

1991–1995 **Assistant Professor**, Institute of Gerontology, Medical Faculty Erlangen-Nuremberg

1996–1998 **Laboratory Head**, Clinic of Neurology, University of Medicine, Greifswald

1999–2004 **Associate Professor** of Neurobiology, Clinic of Neurology, University of Medicine, Greifswald, Ernst-Moritz-Arndt University, Greifswald.

2004–2012 **Professor of Experimental Neurology** at the Department of Neurology and Head of the Research Department, University of Medicine, Greifswald.

2012–2017 **Professor of Experimental Neurology** at the Department of Psychiatry and Head of the Research Laboratory, University of Medicine, Rostock, Germany.

2016–present **Professor of Experimental Neurology** at the Chair of Vascular Neurology and Dementia, Essen University Medical School, University of Medicine, Essen, Germany.

2017–present **Adjunct Professor** at Griffith University School of Medicine, Gold Coast Campus, QLD, Australia

2008–present **Professor of Pathobiochemistry and Experimental Neurology**, University of Medicine and Pharmacy, Craiova, Romania.

2018–present: **Director of the Center for Clinical and Experimental Medicine**. University of Medicine and Pharmacy, Craiova, Romania.

2016–present, **Associate Professor**, Chair of Biochemistry, University of Medicine and Pharmacy “Iuliu Hateganu” Cluj-Napoca

Editor-in-Chief:

Journal of Aging and Restorative Medicine

Membership in editorial committees, ISI Journals

Associate Editor:

BMC Geriatrics (London)

Frontiers Ageing Neuroscience

Frontiers in Neuroscience

Frontiers Cellular Neuroscience

Academic Editor

“PlosOne”

Section Editor

“Current Aging Science”

Member of the Editorial Board:

"Romanian Journal of Morphology and Embryology"

BDI Journals

"Vascular Cell"

"J Gerontology and Geriatric Medicine"

"Biochemistry & Analytical Biochemistry"

"Reviews in Health Care"

Reviewer for grant applications for:

Netherlands Organisation for Scientific Research

CURE Epilepsy (USA)

Irish Grant Agency

Swish Grant National Agency

Polish Grant Agency

Romania Grant Agency

Hong Kong Grant Agency

Hungarian Grant Agency

MRC (UK)

France (ANR)

„International Advisory Board” Member, “Society for the Study of Neuroprotection and Neuroplasticity”

Honorary Membership, “Serbian Association for anti-Aging Medicine”

2012-2015 IBRO Board, Member of the Pan-European Regional Committee

National Neuroscience Society of Romania/ Societatea Nationala de Neurostiinte, Vicepresident since 2012.

Coordination/Networking activity

2008-2012 **Coordinator** of Neuroscience Research Programme at the Medical Faculty, Ernst-Moritz-Arndt University, Greifswald;

2010-2012 **Coordinator** of the platform “Molecular Imaging in Neuroscience” at the Medical Faculty, Ernst-Moritz-Arndt University, Greifswald. **Coordinator** of two FP7 projects, one focused on “Molecular mechanisms underlying neurorehabilitation after brain injuries” and the other one on “Molecular imaging in aging and neural repair”

Conference organizer: *Adult Brain regeneration after injuries. First International Workshop: March 25-27, 2010. Greifswald, Germania.*

Member of the Scientific Committee: *The 5th Conference of the National Neuroscience Society of Romania with an IBRO international symposium “From the neuron to the mind and beyond”, Octombrie 2014, Bucuresti.*

Member of the Scientific Committee *The 4th Conference of the National Neuroscience Society of Romania with an IBRO international symposium „Abnormal brain conectivity”, Octombrie 2013, Bucharest.*

Minisymposium organizer EU Programme, Lifelong Learning Programme: Next Generation Leaders in Biology of Ageing. Rimini, June3rd, 2014. Lecture for students: The response of the old brain to injuries.

Long-term cooperation with the University of Medicine and Pharmacy “Iuliu Hateganu” Cluj-Napoca

Research interest and expertise

The aim my group is to unravel cellular and molecular mechanisms underlying aging progression and its significance for brain diseases. The group has a long-standing interest in molecular mechanisms of brain

remodeling in the aged brain. My group has studied the plasticity of the aging brain in response to stimuli on a background of comorbidities for more than 15 years and to stroke injury for the last 10 years. His group has tested on an aged animal model of stroke various treatments including hypothermia, caloric restriction and stem cells (bone marrow-derived mesenchymal cells, bone marrow-derived mononuclear cells, and microfragmented fat cells of human origin). Recently, we finalized a project using MSC-derived exosomes to improve cellular and behavioral indices of recuperation in aged rats vs young animals. Quite recently, we tested the efficacy of retroviral conversion of glial cells into neurons in lesioned area after stroke in aged animals in an attempt to restore the cellular balance in the neurovascular unit. My group is also interested in circadian rhythmicity and neuropsychiatric diseases.

Expertise: aged animals models of cerebral ischemia; behavioral analysis; recording of EEG and various physiological parameters by telemetric measurements; MRI for small animals; immunohistochemical procedures, proteomics, genomics.

Recent GRANTS: 9

Amount: 7,2 millions EUROS

2008-2011

Neuroprotective effect of hypothermia. An MRI study.

Grant agreement no: 0314107

Grant money: 3,05 millions Euro

2009-2012

FP7: Improvement of the research competitiveness in neuroscience at the Ernst Moritz Arndt University of Greifswald

Acronym: ImpactG

Grant agreement no.: 229750

Grant money: 1,05 millions Euro

2009-2012

Multimodal Approaches for Regenerative Stroke Therapies. Therapeutic benefit of bone marrow stem cells administered to aged rats after stroke.

Acronym: MARS

Grant agreement no: 01GN0982;

Grant money: 760.000 Euro

2010-2013

FP7: Improvement of the research competitiveness in molecular imaging at the Ernst Moritz Arndt University of Greifswald

Acronym: EnVision

Grant agreement no.: 264143

Grant money: 2,15 millions Euro

2011-2014

Age-related deterioration of biological pathways and their significance for brain tissue regeneration and functional recuperation after stroke

Acronym: Regeneratome

Grant agreement no: PN-II-ID-PCE-2011-3-0848 IDEI

Grant money: 410.000 Euro

2012-2015

Cellular therapy of stroke

Acronym: CELEST

Grant agreement no: PCCA 80/2012

Grant money: 410.000 Euro

2011-2012 "Systemic regulatory mechanisms to cope with persistent energy excess in aging systems"

Grant agreement no: MOE 10/73

Grant money: 24.000 EURO

2016-2021 Horizont 2020 "Comorbid Conditions of ADHD (CORA)"

Grant Agreement no 667302

Grant money: 6 mil EURO

2016-2019 "Restore cell balance in the aged brain after stroke by direct in vivo reprogramming technology" (REPROSTROKE) PN-III-P4-ID-PCE-2016-0340. Funds: 185.000 Euro

2017-2019 "Development of a novel stem cell-seeded hydrogel to support the recovery of brain structure and function after stroke" (STEMSTROKE) PN-III-CERC-CO-PED-2016. Funds: 115.000 Euro

2020-2023 **ERANET-Neuron** project: Identification and clinical validation of biomarkers for long-term outcome after cerebral ischemia (**Coordinator**). Funds: 1,15 Mil Euro

2021-2024 **EURONANOMED** project: "Anti-inflammatory miRNA nanoshuttles as therapeutic strategy for stroke" (**Acronym**: Nano4Stroke)

Funds: 1,209 Mil Euro

2021-2024 **UEFISCDI-PCE**. Gene therapy conversion of activated cortical astrocytes into neurons in an aged mouse model of cerebral ischemia"; PN-III-P4-ID-PCE-2020-059.

Funds: 200,000 Euro

Leadership and Mentoring Skills

Invited to the EU sponsored 'Next generation leaders in Biology of Aging' for Master and PhD students; University of Bologna, Rimini Campus.

- 1) The Role of Aging in Cerebrovascular Disorders
- 2) Cellular Responses to Brain Injuries

Supervisor of:

30 PhD works

Learning and Teaching

1) Postgraduate lectures on Neurobiology of Ageing at the University of Medicine Greifswald, Germany

2) Currently teaching Pathobiochemistry for the English Section at the University of Medicine and Pharmacy Craiova, Romania

ISI PUBLICATIONS: 176

HIRSCH = 46; <https://www.webofscience.com/wos/author/rid/E-2541-2013>

ISI PUBLICATIONS

ISI PUBLICATIONS

177. Mihaela Abuzan, Roxana Surugiu, Chen Wang, Ayan Mohamud-Yusuf, Tobias Tertel, Bogdan Catalin, Thorsten R. Doeppner, Bernd Giebel, Aurel Popa-Wagner*, Dirk M. Hermann. *Transl Stroke Res*, in press. *Corresponding author
176. Cercel, A., Boboc, I.K.S., Surugiu, R., Doeppner, TR, Hermann, DM., Catalin, B., Gresita, A., **Popa-Wagner, A.** (2024) Grafts of hydrogel-embedded electrically stimulated subventricular stem cells into the stroke cavity of mice improved cell survival and behavior. *Neural Reg Res*, 2024, in press.
175. Burdusel D, Coman C, Ancuta DL, Hermann D, Doeppner T, Gresita A, **Popa-Wagner A.** Translatability of life-extending pharmacological treatments between different species. *Aging Cell*. 2024 May 26:e14208. doi: 10.1111/ace1.14208.
174. Pinosanu, L. R., Boboc, I. K. S., Balseanu, T. A., Gresita, A., Hermann, D. M., **Popa-Wagner***, A., & Catalin, B. (2024). Beam narrowing test: a motor index of post-stroke motor evaluation in an aged rat model of cerebral ischemia. *Journal of neural transmission* (Vienna, Austria : 1996), 10.1007/s00702-024-02768-0. * Corresponding author. IF = 4,0
173. Ruscu, M., Glavan, D., Surugiu, R., Doeppner, T. R., Hermann, D. M., Gresita, A., Capitanescu, B., & **Popa-Wagner, A.** (2024). Pharmacological and stem cell therapy of stroke in animal models: Do they accurately reflect the response of humans? *Experimental neurology*, 376, 114753. <https://doi.org/10.1016/j.expneurol.2024.114753>. IF =5,3
172. Ruscu M, Capitanescu B, Rupek P, Dandekar T, Radu E, Hermann DM, **Popa-Wagner A.** The post-stroke young adult brain has limited capacity to re-express the gene expression patterns seen during early postnatal brain development. *Brain Pathol*. 2024 Jan 10:e13232. doi: 10.1111/bpa.13232. IF =6,4
171. Coliță CI, Udristoiu I, Ancuta DL, Hermann DM, Colita D, Colita E, Glavan D, **Popa-Wagner A** (2024). Epigenetics of Ageing and Psychiatric Disorders. *J Integr Neurosci*. 23(1):13. doi: 10.31083/j.jin2301013.
170. Pan Y, Xin W, Wei W, Tatenhorst L, Graf I, **Popa-Wagner A**, Gerner ST, Huber SE, Kilic E, Hermann DM, Bähr M, Huttner HB, Doeppner TR. Knockdown of NEAT1 prevents post-stroke lipid droplet agglomeration in microglia by regulating autophagy. *Cell Mol Life Sci*. 2024 Jan 12;81(1):30. doi: 10.1007/s00018-023-05045-7.
169. Pluta R, **Popa-Wagner A**, Hermann DM. Editorial: Global excellence in cellular neuropathology: Europe. *Front Cell Neurosci*. 2023;17:1289444. Published 2023 Oct 25. doi:10.3389/fncel.2023.1289444
168. Colita D, Burdusel D, Glavan D,... **Popa-Wagner A.** Molecular mechanisms underlying major depressive disorder and post-stroke affective disorders. *J Affect Disord*. 2024;344:149-158. doi:10.1016/j.jad.2023.10.037 IF =6,6
167. Yin D, Wang C, Qi Y, **Popa-Wagner et al.** Neural precursor cell delivery induces acute post-ischemic cerebroprotection, but fails to promote long-term stroke recovery in hyperlipidemic mice due to mechanisms that include pro-inflammatory responses associated with brain hemorrhages. *J Neuroinflammation*. 2023;20(1):210. Published 2023 Sep 15. doi:10.1186/s12974-023-02894-8
166. Xin W, Pan Y, Wei W, **Popa-Wagner et al.** Preconditioned extracellular vesicles from hypoxic microglia reduce poststroke AQP4 depolarization, disturbed cerebrospinal fluid flow, astrogliosis, and neuroinflammation. *Theranostics*. 2023;13(12):4197-4216. doi:10.7150/thno.84059
165. Soancă A, Leucuța DC, Roman A, Ciurea A, Negucioiu M, Pascu LC, Picoș A, Delean AG, Micu IC, **Popa Wagner*** A, Rusu D. The Treatment of Severe Periodontitis Using a Local Antiseptic Desiccant and Subgingival Mechanical Instrumentation: A Pilot Study. *J Clin Med*. 2023 Jun 26;12(13):4286. doi: 10.3390/jcm12134286. PMID: 37445321;. IF =3,9. * Corresponding author
164. Ruscu M, Cercel A, Kilic E, **Popa-Wagner** (2023) Nanodrugs for the Treatment of Ischemic Stroke: A Systematic Review. *Int J Mol Sci*. 2023;24(13):10802. Published 2023 Jun 28. doi:10.3390/ijms241310802. IF =5,6.

163. Beker MC, Aydinli FI, Caglayan AB, et al. Age-Associated Resilience Against Ischemic Injury in Mice Exposed to Transient Middle Cerebral Artery Occlusion. *Mol Neurobiol.* 2023;60(8):4359-4372. doi:10.1007/s12035-023-03353-4
162. Boston B, Ipe D, Capitanescu B, Gresita A, Hamlet S, Love R, Hadjiargyrou M, Huang CL, Nusem I, Miroiu RI, **Popa-Wagner A**, Warnke PH, Petcu EB. Medication-related osteonecrosis of the jaw: A disease of significant importance for older patients. *J Am Geriatr Soc.* 2023 May 24. doi: 10.1111/jgs.18414. **IF = 7,52**
161. Fazlallah Afshangian, Jack Wellington, Ismail Bozkurt, Kaan Yagmurlu, Ehsan Baradran Sirjani & **Aurel Popa Wagner** (2023) The impact of visual and motor skills on ideational apraxia and transcortical sensory aphasia, *Applied Neuropsychology Adult*, DOI: 10.1080/23279095.2023.2204527; **IF = 2,12**
160. Surugiu R, Burdusel D, Ruscu MA, Cercel A, Hermann DM, Cadenas IF, Popa-Wagner A. Clinical Ageing. *Subcell Biochem.* 2023;103:437-458. doi: 10.1007/978-3-031-26576-1_16. PMID: 37120476. **IF = 5,39**
159. Beker MC, Aydinli FI, Caglayan AB, Beker M, Baygul O, Caglayan A, **Popa-Wagner A**, Doeppner TR, Hermann DM, Kilic E. Age-Associated Resilience Against Ischemic Injury in Mice Exposed to Transient Middle Cerebral Artery Occlusion. *Mol Neurobiol.* 2023; doi: 10.1007/s12035-023-03353-4. Epub ahead of print. PMID: 37093494. **IF = 5,59**
158. Boldeanu LC, **Popa-Wagner*** A, Boariu M, Stratul SI, Rusu D, Vela O, Roman A, Surlin P, Kardaras G, Chinnici S, Vaduva A. Influence of Section Thickness on the Accuracy and Specificity of Histometric Parameters Using Confocal Laser Scanning Microscopy in a Canine Model of Experimental Peri-Implantitis-A Proof of Concept. *J Clin Med.* 2023; 23;12(7):2462. doi: 10.3390/jcm12072462. PMID: 37048546; PMCID: PMC10095515. *Corresponding author; **IF = 4,2**
157. Coliță CI, Olaru DG, Coliță D, Hermann DM, Coliță E, Glavan D, **Popa-Wagner A**. Induced Coma, Death, and Organ Transplantation: A Physiologic, Genetic, and Theological Perspective. *Int J Mol Sci.* 2023 Mar 17;24(6):5744. doi: 10.3390/ijms24065744. PMID: 36982814; PMCID: PMC10059721. **IF = 6,2**
156. Badoiu A, Mitran SI, Catalin B, Balseanu TA, **Popa-Wagner A**, Gherghina FL, Albu CV, Sandu RE. From Molecule to Patient Rehabilitation: The Impact of Transcranial Direct Current Stimulation and Magnetic Stimulation on Stroke-A Narrative Review. *Neural Plast.* 2023; 2023:5044065. doi: 10.1155/2023/5044065. PMID: 36895285; **IF = 3.15**
155. Godeanu S, Clarke D, Stopper L, Deftu AF, **Popa-Wagner A**, Bălșeanu AT, Scheller A, Catalin B. Microglial morphology in the somatosensory cortex across lifespan. A quantitative study. *Dev Dyn.* 2023; doi: 10.1002/dvdy.582. Epub ahead of print. PMID: 36883224. **IF=2.84**
154. Pinosanu LR, Capitanescu B, Glavan D, Godeanu S, Cadenas IFN, Doeppner TR, Hermann DM, Balseanu AT, Bogdan C, Popa-Wagner A. Neuroglia Cells Transcriptomic in Brain Development, Aging and Neurodegenerative Diseases. *Aging Dis.* 2023;14(1):63-83. doi: 10.14336/AD.2022.0621. PMID: 36818562; **IF=9.96**
153. Burlacu CC, Ciobanu D, Badulescu AV, Chelaru VF, Mitre AO, Capitanescu B, Hermann DM, **Popa-Wagner A**. Circulating MicroRNAs and Extracellular Vesicle-Derived MicroRNAs as Predictors of Functional Recovery in Ischemic Stroke Patients: A Systematic Review and Meta-Analysis. *Int J Mol Sci.* 2022 Dec 23;24(1):251. doi: 10.3390/ijms24010251. PMID: 36613694; PMCID: PMC9820088. **IF =6.20**
- 152b. Stanomir, A.; Mihiu, C.M.; Rednic, S.; Pamfil, C.; Roman, A.; Soancă, A.; Micu, I.C.; Bulboacă, A.E.; Stratul, Ș.I.; **Popa-Wagner***, A.; Pall, E. Oral Mesenchymal Stromal Cells in Systemic Sclerosis: Characterization and Response to a Hyaluronic-Acid-Based Biomaterial. *Appl. Sci.* 2021, 11, 8101. <https://doi.org/10.3390/app11178101>. *Corresponding author (**BDI**)

IF =2.83

152. Raza SS, Azari H, Morris VB, **Popa Wagner A**. Editorial: Advances and challenges in stroke therapy: A regenerative prospective. *Front Neurosci*. 2022;16:1102119. doi: 10.3389/fnins.2022.1102119. PMID: 36578826; PMCID: PMC9791250. **IF =5.15**

151. Coliță D, Coliță CI, Hermann DM, Coliță E, Doeppner TR, Udristoiu I, **Popa-Wagner A**. Therapeutic Use and Chronic Abuse of CNS Stimulants and Anabolic Drugs. *Curr Issues Mol Biol*. 2022;44(10):4902-4920. doi: 10.3390/cimb44100333. PMID: 36286048; PMCID: PMC9600088. **IF =4.20**

150. Boldeanu LC, Boariu M, Rusu D, Vaduva A, Roman A, Surlin P, Martu I, Dragoi R, **Popa-Wagner* A**, Stratul SI. Histomorphometrical and CBCT Evaluation of Tissue Loss Progression Induced by Consecutive, Alternate Ligatures in Experimental Peri-Implantitis in a Dog Model: A Pilot Study. *J Clin Med*. 2022;11(20):6188. doi: 10.3390/jcm11206188. PMID: 36294510; PMCID: PMC9605274.

*Corresponding author; **IF =4.20**

149. Costea CA, Christodorescu R, Soancă A, Roman A, Micu IC, Stratul ȘI, Rusu D, Popescu DM, **Popa-Wagner A**, Bulboacă AE. Periodontitis in Ischemic Stroke Patients: Case Definition Challenges of the New Classification Scheme (2018). *J Clin Med*. 2022 Jan 20;11(3):520. doi: 10.3390/jcm11030520. PMID: 35159973; PMCID: PMC8836590. *Corresponding author; **IF =4.20**

148. Doeppner TR, Coman C, Burdusel D, Ancuta DL, Brockmeier U, Pirici DN, Yaoyun K, Hermann DM, **Popa-Wagner A**. Long-term treatment with chloroquine increases lifespan in middle-aged male mice possibly via autophagy modulation, proteasome inhibition and glycogen metabolism. *Aging (Albany NY)*. 2022;14(10):4195-4210. doi: 10.18632/aging.204069. PMID: 35609021; PMCID: PMC9186778. **IF =5.95**

147. Gresita A, Mihai R, Hermann DM, Amandei FS, Capitanescu B, **Popa-Wagner A**. Effect of environmental enrichment and isolation on behavioral and histological indices following focal ischemia in old rats. *Geroscience*. 2022 Feb;44(1):211-228. doi: 10.1007/s11357-021-00432-z. Epub 2021 Aug 12. PMID: 34382128; PMCID: PMC8811116. **IF =7.58**

146. Dumitrascu DI, **Popa Wagner A**. Ageing and comorbidities in humans with antigliadin antibodies. *J Gastrointest Liver Dis*. 2022 Sep 16;31(3):368-358. doi: 10.15403/jgld-4465. PMID: 36112711. **IF=2.65**

145. Dumbrava DA, Surugiu R, Börger V, Ruscu M, Tertel T, Giebel B, Hermann DM, **Popa-Wagner A**. Mesenchymal stromal cell-derived small extracellular vesicles promote neurological recovery and brain remodeling after distal middle cerebral artery occlusion in aged rats. *Geroscience*. 2022; 44(1):293-310. doi: 10.1007/s11357-021-00483-2. Epub 2021 Nov 10. PMID: 34757568; PMCID: PMC8811093. **IF =7.58**

144. Raza SS, Azari H, Morris VB, **Popa Wagner A**. Editorial: Advances and challenges in stroke therapy: A regenerative prospective. *Front Neurosci*. 2022 Dec 12;16:1102119. doi: 10.3389/fnins.2022.1102119. PMID: 36578826; PMCID: PMC9791250. **IF =5.15**

143. Wang C, Börger V, Mohamud Yusuf A, Tertel T, Stambouli O, Murke F, Freund N, Kleinschnitz C, Herz J, Gunzer M, **Popa-Wagner A**, Doeppner TR, Giebel B, Hermann DM. Postischemic Neuroprotection Associated With Anti-Inflammatory Effects by Mesenchymal Stromal Cell-Derived Small Extracellular Vesicles in Aged Mice. *Stroke*. 2022;53(1):e14-e18. doi: 10.1161/STROKEAHA.121.035821. Epub 2021 Dec 1. PMID: 34847707; PMCID: PMC8700303. **IF =10.15**

142. Hermann DM, **Popa-Wagner A**, Peruzzotti-Jametti L, Gunzer M. Editorial: Hot Topics in Cellular Neuropathology. *Front Cell Neurosci*. 2022 Apr 19;16:895861. doi: 10.3389/fncel.2022.895861. PMID: 35518643; PMCID: PMC9063755. **IF =6.15**

141. Driga MP, Catalin B, Olaru DG, Slowik A, Plesnila N, Hermann DM, **Popa-Wagner A**. The Need for New Biomarkers to Assist with Stroke Prevention and Prediction of Post-Stroke Therapy Based on Plasma-Derived Extracellular Vesicles. *Biomedicines*. 2021 Sep 15;9(9):1226. doi: 10.3390/biomedicines9091226. PMID: 34572411; PMCID: PMC8466486. **IF =4.75**
140. Gregorius J, Wang C, Stambouli O, Hussner T, Qi Y, Tertel T, Börger V, Mohamud Yusuf A, Hagemann N, Yin D, Dittrich R, Mouloud Y, Mairinger FD, Magraoui FE, **Popa-Wagner A**, Kleinschnitz C, Doeppner TR, Gunzer M, Meyer HE, Giebel B, Hermann DM. Small extracellular vesicles obtained from hypoxic mesenchymal stromal cells have unique characteristics that promote cerebral angiogenesis, brain remodeling and neurological recovery after focal cerebral ischemia in mice. *Basic Res Cardiol*. 2021 Jun 8;116(1):40. doi: 10.1007/s00395-021-00881-9. PMID: 34105014. **IF =17.15**
139. Cojocaru, A., Burada, E., Bălșeanu, A. T., Deftu, A. F., Cătălin, B., **Popa-Wagner, A.**, & Osiac, E. (2021). Roles of Microglial Ion Channel in Neurodegenerative Diseases. *Journal of Clinical Medicine*, 10(6), 1239. <https://doi.org/10.3390/jcm10061239>. **IF =4.15**
138. Anton, R., Ghenghea, M., Ristoiu, V., Gattlen, C., Suter, M. R., Cojocaru, P. A., **Popa-Wagner, A.**, Catalin, B., & Deftu, A. F. (2021). Potassium Channels Kv1.3 and Kir2.1 But Not Kv1.5 Contribute to BV2 Cell Line and Primary Microglial Migration. *International journal of molecular sciences*, 22(4), 2081. <https://doi.org/10.3390/ijms22042081>. **IF =5.75**
137. Sardari M, Skuljec J, Yin D, Zec K, de Carvalho TS, Albers D, Wang C, Pul R, **Popa-Wagner A**, Doeppner TR, Kleinschnitz C, Dzyubenko E, Hermann DM. Lipopolysaccharide-induced sepsis-like state compromises post-ischemic neurological recovery, brain tissue survival and remodeling via mechanisms involving microvascular thrombosis and brain T cell infiltration. *Brain Behav Immun*. 2021 Jan;91:627-638. doi: 10.1016/j.bbi.2020.10.015. Epub 2020 Oct 22. PMID: 33122024. **IF=19.22**
136. Slevin M, E EG, Capitanescu B, Sanfeliu C, Zeinolabediny Y, AlBaradie R, Olah P, Guo B, Pirici D, Napoli MD, **Popa-Wagner A**. Monomeric C-Reactive Protein Aggravates Secondary Degeneration after Intracerebral Haemorrhagic Stroke and May Function as a Sensor for Systemic Inflammation. *J Clin Med*. 2020;9(9):E3053. doi: 10.3390/jcm9093053. PMID: 32971821. **IF =4.15**
135. Balseanu AT, Grigore M, Pinosanu LR, Slevin M, Hermann DM, Glavan D, **Popa-Wagner A**. Electric Stimulation of Neurogenesis Improves Behavioral Recovery After Focal Ischemia in Aged Rats. *Front Neurosci*. 2020 Jul 9;14:732. doi: 10.3389/fnins.2020.00732. PMID: 32742258; PMCID: PMC7365235. **IF =4.15**
134. **Popa-Wagner A**, Petcu EB, Capitanescu B, Hermann DM, Radu E, Gresita A. Ageing as a risk factor for cerebral ischemia: Underlying mechanisms and therapy in animal models and in the clinic. *Mech Ageing Dev*. 2020 Sep;190:111312. doi: 10.1016/j.mad.2020.111312. PMID: 32663480. **IF=5.49**
133. Stănescu I, Bulboacă AE, Micu IC, Bolboacă SD, Feștilă DG, Bulboacă AC, Bodizs G, Dogaru G, Boarescu PM, ***Popa-Wagner A**, Roman A. Gender Differences in the Levels of Periodontal Destruction, Behavioral Risk Factors and Systemic Oxidative Stress in Ischemic Stroke Patients: A Cohort Pilot Study. *J Clin Med*. 2020 Jun 4;9(6):1744. doi: 10.3390/jcm9061744. PMID: 32512870; PMCID: PMC7356570. **Corresponding author; IF =4.15*
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II. BOOK CHAPTERS

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3. Aurel **Popa-Wagner**, Adrian Balseanu, Leon Zagrean, Imtiaz M. Shah, Mario Di Napoli, Zaal Kokaia and Henrik Ahlenius. **Editor**. Kenneth Maiese Chapter 17: *Neurobiology of Post-Ischemic Recuperation in the Aged Mammalian Brain*. In: **Neurovascular Medicine: Pursuing Cellular Longevity for Healthy Aging**. Oxford University Pres. 2008. ISBN: 978-0-19-532669-7

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1. Aurel **Popa-Wagner**. Chapter IV - *Alzheimer's disease pathological factors in ischemic aged brain*; in **Ischemia-Reperfusion Pathways in Alzheimer's Disease**. pp. 51-84., Dept. of Neurology, Univ. of Greifswald, Greifswald, Germany. Ed. R. Pluta, NOVA Publishers, 2007. ISBN: 978-1-60021-744-9

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1. Aurel Popa-Wagner. Chapter IV - *Alzheimer's disease pathological factors in ischemic aged brain*; in **Ischemia-Reperfusion Pathways in Alzheimer's Disease**. pp. 51-84., Dept. of Neurology, Univ. of Greifswald, Greifswald, Germany. Ed. R. Pluta, NOVA Publishers, 2007. ISBN: 978-1-60021-744-9.

International visibility

Invited Lectures

1) University of Southern California, Los Angeles, 1990

On the strategy of directed assembly and its relevance to ageing

2) International Centre of Genetic Engineering and Biotechnology, Padriciano 99, 34012 Trieste, Italy (1991)

Differential Expression of Fibronectin and N-CAM mRNA Isoforms During Development and Aging of Rat Hippocampus.

3) World Congress of Gerontology, Budapest, 1993

Dynamics of Gene Expression for Fibronectin, GFAP, S100 β , Microtubule-Associated Protein MAP1B, Embryonic α -Tubulin and Late Neural β -Tubulin mRNAs in the Brain of Aged Rats

4) Institut of Physiology, The University of Veterinary Medicine, Vienna, 1994

Dynamics of Gene Expression for Cytoskeletal Proteins mRNAs in the Brain of Aged Rats

5) University of Erlangen-Nuremberg, 1996

Pentylenetetrazole-Induced Seizure Upregulates Levels of Microtubule-Associated Protein 1B mRNA and Protein in the Hippocampus of Rat

6) Institut of Physiology, The University of Veterinary Medicine, Vienna, 1996

Pentylenetetrazole-Induced Seizure Upregulates Levels of Microtubule-Associated Protein 1B mRNA and Protein in the Hippocampus of Rat. Effects of aging.

7) University of Erlangen-Nuremberg, 1997

Beta-Amyloid Peptide Immunoreactivity in the Aged Rat Brain Following Middle Cerebral Artery Occlusion

8) University of Lund, Sweden, 1997

Evidence that V⁺ Fibronectin, GFAP and S100 β mRNAs are Increased in the Hippocampus of Aged Rats

9) University of Erlangen-Nuremberg, 1998

Synaptic plasticity is preserved in the temporal cortex of 20-month-old rats

10) University of Erlangen-Nuremberg, 1999

Increased Expression of Microtubule-Associated Protein 1B in the Hippocampus, Subiculum, and Perforant Path of Rats Treated with a High Dose of Pentylentetrazole

11) University of Erlangen-Nuremberg, 2000

Upregulation of MAP1B and MAP2 in the Rat Brain Following Middle Cerebral Artery Occlusion: Effect of Age

12) Symposium on the Neurobiology and Neuroendocrinology of Aging. Bregenz, Austria, 2002. *Brain plasticity: to what extent do aged animals retain the capacity to coordinate gene activity in response to acute challenges*

13) Faculty of Medicine, University of Heidelberg-Mannheim, 2002

Brain plasticity: to what extent do aged animals retain the capacity to coordinate gene activity in response to stroke and epileptic seizures

14) University of Heidelberg-Mannheim, 2003. German Society of Neurology

Kindling Status in Sprague-Dawley Rats Induced by Pentylentetrazole: Involvement of a Critical Development Period

15) University of Erlangen-Nuremberg, Germany, 2003. German Society for Aging Research

1. *Functional rehabilitation after stroke. The role of scar, neurogenesis and age*
2. *Premature appearance of proliferating cells in the aged brain following stroke*

16) University of Erlangen-Nuremberg, Germany, 2004. German Society for Aging Research

Inhibition of inflammation after stroke improves the endogenous neurogenesis and functional recuperation after stroke.

17) University of Karlsruhe, Germany, 2005. German Society for Aging Research.

Neurorehabilitation after Stroke in Aged Rats: Role of Scar and Neurogenesis

18) University of Karlsruhe, Germany, 2006. German Society for Aging Research

The response of the aged brain to stroke: Too much, too soon?

19) Romanian Society for Cell Biology, June 13th, 2006

Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats

20) Bucharest, September 3rd, 2007. Romania. The 2nd International Conference of the National Neuroscience Society of Romania. *Cellular and molecular mechanisms of neurorehabilitation after stroke* ISBN[10]: 973-708-153-6

21) University of Lund, Sweden, 2007

*Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats.
Role of stem cells.*

22) Medical School, University of West Virginia, Morgentown, USA, 2007

*Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats.
Role of hypothermia.*

23) University of California at Los Angeles (UCLA), USA, 2007

*Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats.
Role of enriched environment.*

24) University of Freiburg, Germany, 2007

*Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats.
Role of stem cells.*

25) Bucharest, June 2-3, 2007, Romania

„Gheorghe Marinescu” Symposium of The National Neuroscience Society of Romania with international participation. *Molecular mechanisms underlying neurorehabilitation after stroke in aged animals*, ISBN 978-073-708-240-4

26) University of Magdeburg. Neuroscience Center, March 17, 2008

Cellular and Molecular Mechanisms underlying Neurorehabilitation after Stroke in Aged Rats

27) University of Chisinau, April 2008, Moldova. International Conference.

Temporal dynamics of degenerative and regenerative events associated with cerebral ischemia in aged rats.

28) Bucharest, May 30, Romania, 2008. Al IV-lea Simpozion al Societatii Nationale de

Neurostiinte. *Cellular and molecular mechanism underlying post-stroke neurorehabilitation*
ISBN 978-973-708-323-4

29) Cluj, Romania October 2008. International Workshop

Molecular strategies to improve neurorehabilitation after stroke in aged rats

30) Cluj, Romania October 2008. International Workshop

Imaging in Neuroscience

31) Craiova, September 2008. International Workshop.

Gene expression signature in neuroscience

32) University of Hamburg, September 10, 2008. German Society of Neurology

The enriched environment significantly improved the rate and extent of recovery in aged animals.

33) University of Karlsruhe, November 2008. German Society for Aging Research

Improvement of functional recuperation after stroke by enhanced neurogenesis

34) University of Regensburg, July 18th. Clinic of Neurology. International Workshop.

Strategies to improve recuperation after stroke in aged subjects

- 35) **Vienna**, March 2009: 6th World Congress of Neurorehabilitation (WCNR2010): *Neurobiology of post-ischemic recuperation in the aged rodent brain*
- 36) **Lund**, September, 2009. The 3rd International Hypothermia Symposium: *Long-term hypothermia using H₂S acts neuroprotectively in aged rats after focal ischemia.*
- 37) **Belgrade, Serbia**, June 2010: Congress on Anti-Aging Medicine: *Stimulation of neurogenesis in aged subjects improves behavioural recuperation and tissue indices after stroke*
- 38) **Eforie, Romania**, June 2010: Society for the Study of Neuroprotection and Neuroplasticity: *Stimulation of neurogenesis in aged subjects improves behavioural recuperation and tissue indices after stroke*
- 39) **Bucharest, Romania**, September 2010: DIASPORA, Exploratory Workshop Meeting: *Transcriptomics of Stroke in Aged Rodents and its Relevance for Neurorehabilitation Strategies*
- 40) **Mannheim, Germany**, September 2010: German Society for Neurology *Improved functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats*
- 41) **Rostock, Germany**, October 2010. 6th International Conference on Neuroprotection and Neurorepair: *Improved functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats*
- 42) **Hamburg, Germany, May 2011. German Society for Neurology.** *Improved functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats by G-CSF treatment.*
- 43) **Belgrade, Serbia, June 2011.** Congress on Anti-Aging Medicine: *Strategies to improve functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats*
- 44) **Ulm, Germany, October 2011.** Annual Meeting of the German Association for Aging Research. *Genomics of Stroke in Aged Rodents*
- 45) **Rostock, Germany, September 2011:** Bioinformatics in Aging Research: *Identification of new therapeutics targets by genome-wide analysis of gene expression in the ipsilateral cortex of aged rats after stroke*
- 46) **Homburg, Germany, November 2011.** Special lecture: *Strategies to improve functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats*
- 47) **Potsdam, Germany, May 2012.** International Conference on Neurorepair: *Multimodal Approaches for Regenerative Stroke Therapies (MARS)*
- 48) **Belgrade, Serbia, May 2012.** Congress on Anti-Aging Medicine: *Strategies to improve functional recovery after stroke through enhancement of the endogenous neurogenesis in aged rats*

49) **Galway, August 2012, Ireland.** Meeting of the European Aging Project, FLARE 2.
Animals Models of Aging

50) **Rostock, September 6th, Germany.** 4th Hanse Symposium.
Molecular Neuroscience: Bridging the Gap between Neurology and Psychiatry

51) **IBRO Lecture, Bucharest, September 26, 2012.** The 2nd International Conference of the National Neuroscience Society of Romania. *Identification of new therapeutic targets by stromatomics.*

52) **Cluj, Romania, November 2nd, 2012.** International Workshop
Cell therapy of stroke. From bench to clinical applications.

53) **Dead Sea, March 2013, Israel.** 8th European Congress of Biogerontology.
Multimodal approaches for regenerative stroke therapies. Role of the fibrotic scar.

54) **Barcelona, April 9th, 2013, Spain.** Clinic of Neurology. Special lecture:
Multimodal approaches for regenerative stroke therapies. Role of Hypothermia.

55) **Cluj, May 29th, 2013, Romania.** Erasmus-Exchange Programme.

1. *Neuroinflammation after stroke*
2. *Cell therapy of Stroke. Targeting endogenous neurogenesis*

56) **IBRO Lecture, Bucharest, October 17th, 2014.** The 3th International Conference of the National Neuroscience Society of Romania. „*Post-stroke depression and aging*“

57) **Rimini, 2014.** EU sponsored ‘Next generation leaders in Biology of Aging’
for Master and PhD students; University of Bologna, Rimini Campus.

- 1) *The Role of Aging in Cerebrovascular Disorder*
- 2) *Cellular Responses to Brain Injuries*

58) **Romanian Society for Morphology and Embryology, May, 2014.** *Post-stroke angiogenesis. Role of inflammation*

59) **Hermannstadt/Sibiu, June 2014.** Annual Meeting of the European Association of Psychosomatic Medicine. *Poststroke depression: mechanisms, translation and therapy*

60) **Nottingham University, October 2014.** *Current Therapies of Stroke in Experimental Models and Humans*

61) **IBRO Lecture, Bucharest, October 24, 2014.** The 4th International Conference of the National Neuroscience Society of Romania. *The Brain Reserve and Post-Stroke Depression in the Aged*

62) **10.01.2015 Manchester Metropolitan University, UK**
THERAPEUTIC STRATEGIES TO ENHANCE POSTSTROKE RECOVERY OF AGED BRAINS

63) **03. 06.2015 BRAIN DAYS, CLUJ-NAPOCA, ROMANIA**

Combination of granulocyte colony-stimulating factor with and BM MSC and BM MNCs for stroke treatment in aged rats is not superior to G-CSF alone

64) 05.06.2015 Romanian Society of Morphology, Craiova, Romania

THERAPEUTIC STRATEGIES TO ENHANCE POSTSTROKE RECOVERY OF AGED BRAINS

65) 11.07.2015 "STEFAN ODOBLEJA", SYMPOSIA, TN. SEVERIN

MOLECULAR PSYCHIATRY: BRIDGE BETWEEN NEUROLOGY AND PSYCHIATRY

66) 22.09.2015 GERMAN SOCIETY FOR NEUROLOGY, DUESSELDORF, GERMANY

CURRENT CELL THERAPIES OF STROKE IN AGED ANIMALS

67) 25.09.2015 Society for Neuropsychopharmacology and Pharmacopsychiatry

Munich, Germany. *Molecular Psychiatry: Lighty therapy for ADHD Patients*

68) 28.10.2015 ROMANIAN SOCIETY FOR NEUROSCIENCE, BUCHAREST, ROMANIA

The promise and pitfalls of cell therapy for stroke in the aged brain

69) 07.11.2015 Romanian Society for Psychosomatics, Brasov, Romania.

Post-Stroke Depression: Models and Mechanisms

70) 26.11.2015 GERMAN SOCIETY FOR PSYCHIATRY AND PSYCHOTHERAPY, BERLIN

Human dermal fibroblasts: a tool to study *in vitro* circadian rhythmicity in adult ADHD patients.

71) 20.04.2016 9th Symposium on Neuroprotection and Neuroplasticity, Leipzig, Germany.

Is the aged brain microenvironment refractory to cell therapy?

73) July 17, 2016. 13th International Symposium on Neurobiology and Neuroendocrinology of

Aging. Bregenz, Austria, Stem cell therapies in preclinical models of stroke. Is the aged brain microenvironment refractory to cell therapy?

73) 02.10 2016. 2nd International Conference on Aging and Disease, Stanford, California, USA.

Stem cell therapies in preclinical models of stroke. Is the aged brain microenvironment refractory to cell therapy?

74) 24.11.2016 Societatea Romana de Neurostiinte. Bucuresti. Stroke co-morbidities. Role of Neuroinflammation.

75) 24-27.05.2017 Romanian Society of Morphology, Oradea, Romania. Stem cell therapies in preclinical models of stroke. Is the aged brain microenvironment refractory to cell therapy?

76) 20.09.2017 FENS Regional Meeting, Pecs, Hungary

Stem cell therapies for the aged brain after cerebral ischemia

77) 03.11.2017 Academia Romana. Bucuresti. Terapia cu celule stem in modele preclinice de stroke. Este creierul batran refractar la terapia celulara?

- 78) 18.11.2017. Conferinta Nationala de Neurostiinte, Neuroinformatica, Neurotehnologie si Neuro-Psiho-Farmacologie. Biblioteca Academiei. Bucuresti.** Autofagia celulară- țintă de intervenție pentru procesul de îmbătrânire.
- 79) 23-26.05.2018. Romanian Society of Morphology, Craiova, Romania.** Effects of mesenchymal stem cell-derived exosomes on brain remodeling and plasticity in the aged ischemic brain
- 80) 15-20.07.2018/ 14th International Symposium on Neurobiology and Neuroendocrinology of Aging. Bregenz, Austria.** Caloric restriction stabilizes body weight and accelerates behavioral recovery in aged rats after focal ischemia.
- 81) 10.09.2018. Aging and Rejuvenation Conference, Rome.** Stem cell therapies in preclinical models of stroke. Is the aged brain microenvironment refractory to cell therapy?
- 82) 01.09.2018. New Trends on Sensing- Monitoring- Telediagnosis for Life Sciences. Bucharest.** Restore cell balance in the aged brain after stroke by direct in vivo reprogramming technology
- 83) 09.10.2018/10th Symposium on Neuroprotection and Neuroplasticity, Dresden, Germany.** Functional Recovery after cerebral ischemia. The age effect.
- 84) 18-19.10.2018. Societatea Romana de Neurostiinte. Bucuresti.** Poststroke angiogenesis in aged subjects.
- 85) 13.07.2019. FENS Regional Meeting, Belgrade.** Pharmacological and cell-based therapies of cerebral ischemia in an aged animal model.
- 86) 5.10.2019. Conferinta Nationala de Psihosomatica. Cluj-Napoca.** Cognition deficits and depression following secondary neurodegeneration after cerebral ischemia.
- 87) Stem cell therapies in preclinical models of stroke. Is the aged brain curable? Milano, Feb 087, 2020**
- 88) Genetic conversion of proliferative astroglia into neurons after cerebral ischemia. A new therapeutic tool for the aged brain. Academia Romana. Nov 19, 2021**

08.01.2024

