Approved by the Regents
May 21, 2020

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PATHOLOGY

Anuska V. Andjelkovic-Zochowska, M.D., Ph.D., associate professor of pathology, with tenure, Department of Pathology, Medical School, is recommended for promotion to professor of pathology, with tenure, Department of Pathology, Medical School [also being promoted to research professor, Department of Neurosurgery, Medical School].

Academic Degrees:

Ph.D.	1999	Medical School, University of Belgrade, Yugoslavia
M.S.	1995	University of Belgrade, Yugoslavia
M.D.	1990	University of Nis, Yugoslavia

Professional Record:

2012-present	Research Associate Professor, Department of Neurosurgery, University of Michigan
2012-present	Associate Professor (with tenure) Department of Pathology, University of Michigan
2005-2012	Assistant Professor, Department of Pathology, University of Michigan
2003-2012	Research Assistant Professor, Department of Neurosurgery, University of Michigan
2001-2003	Assistant Research Scientist, Department of Neurosurgery, University of Michigan
2001	Assistant Professor, Department of Pharmacology, University of Connecticut Health Center
1999-2001	Instructor, Department of Pharmacology, University of Connecticut Health Center
1991-1994	Lecturer, Department of Physiology, University of Pristina, Pristine, Yugoslavia

Summary of Evaluation:

Teaching: Dr. Andjelkovic-Zochowska has a strong a training and teaching commitment to students and fellows at multiple levels in the classroom, as well as through research instruction in the laboratory. She is a member of the Molecular and Cellular Pathology and Neuroscience Graduate Programs and has devoted approximately 30% of her time to teaching activities. These activities include teaching PIBS 503 Research Responsibility and Ethics, service on student dissertation committees, and curriculum design and development.

Research: Dr. Andjelkovic-Zochowska's research is focused on understanding the molecular mechanisms of cerebrovascular diseases, including regulation of the blood brain barrier, neuroinflammation and stroke, tight junction proteins and cerebrovascular inflammation. Since her last promotion, her novel studies have resulted in more than 20 peer-reviewed publications in top-tier journals, including *Science Reports*, *Journal of Neuroscience*, and *Molecular and Cellular Biology*. These have been highly impactful and have led to novel areas of research within the field. Dr. Andjelkovic-Zochowska has received continuous funding and is currently the principal investigator of an RF1 grant, an R01 grant and an R21 grant from the NIH. She is a co-principal investigator of an institutional grant. Dr. Andjelkovic-Zochowska has presented numerous international talks surrounding her research within the scientific community. Her participation nationally in societies and

as journal and grant reviewer demonstrate her commitment to service based upon her outstanding reputation in the field.

Recent and Significant Publications:
Sladojevic N, Stamatovic SM, Johnson AM, Choi J, Hu A, Dithmer S, Blasig lE, Keep RF, Andjelkovic AV: Claudin-1 dependent destabilization of the blood-brain barrier in chronic stroke. *J Neurosci* 39(4): 743- 57, 2018.

Stamatovic SM, Martinez-Revollar G, Hu A, Choi J, Keep RF, Andjelkovic AV: Decline in Sirtuin-1 expression and activity plays a critical role in blood-brain barrier permeability in aging. *Neurobiol Dis* 126: 105-16, 2018.

Johnson AM, Roach JP, Hu A, Stamatovic SM, Zochowski MR, Keep RF, Andjelkovic AV: Connexin 43 gap junctions contribute to brain endothelial barrier hyperpermeability in familial cerebral cavernous malformations type lll by modulating tight junction structure. *FASEB J* 32(5): 2615-29, 2018.

Stamatovic SM, Sladojevic N, Keep RF, Andjelkovic AV: PDCD10 (CCM3) regulates brain endothelial barrier integrity in cerebral cavernous malformation type 3: role of CCM3-ERK1/2-cortactin cross-talk. *Acta Neuropathol* 130(5): 731-50, 2015.

Sladojevic N, Stamatovic SM, Keep RF, Grailer JJ, Sarma JV, Ward PA, Andjelkovic AV: lnhibition of junctional adhesion molecule-A/LFA interaction attenuates leukocyte trafficking and inflammation in brain ischemia/reperfusion injury. *Neurobiol Dis* 67: 57-70, 2014.

Service: Dr. Andjelkovic-Zochowska participates extensively in service regionally, nationally and internationally. She is a grant and journal reviewer for the Swiss National Science Foundation, a study section for the NIH Neurological Sciences and Disorders, and for the Department of Defense Medical Research Program CDMRP. Since 2012, Dr. Andjelkovic-Zochowska has served as a member of the editorial boards for *Tissue Barriers*, *Neurochemical Research* and *Fluids and Barriers of the CNS*. She has continued to exhibit strong credentials and service work throughout her years as an associate professor.

External Reviewers:
Reviewer A: "Dr. Andjelkovic-Zochowska's work is very impactful as evidenced by a series of corresponding publications in higher impact journals such as the Journal of Neuroscience, FASB J, and Neurobiology of Disease, and I have followed it closely over the past decade…Her track record of research productivity and extramural funding is top notch…"

Reviewer B: "I believe that Anuska Andjelkovic's groundbreaking data, unraveling some unsuspected molecular mechanisms of BBB alterations in these devastating diseases, may pave the way to the identification of novel molecular targets and hopefully to putative therapeutic approaches…I can confirm that Anuska Andjelkovic has established herself as a leading scientist in the field of BBB biology in relation to several major cerebral diseases like stroke and CCMs."

Reviewer C: "Anuska is an excellent cell physiologist, has increased our understanding of what regulates BBB junctional complexes at cerebral endothelial cells, and is a highly valued colleague…she is expanding her preclinical work to the clinical arena by examining human CCM-3 and stroke patients."

Reviewer D: "She is an excellent researcher and highly dedicated to her work. Her work is published in high-impact journal [sic] within the field and she is very successful to move the field forward with her innovative research. Moreover, she is a very likable person, who is a well-recognized researcher in her field and always enthusiastic for novel collaborations."

Reviewer E: "Her body of work is highly recognized by her peers for the exceptional quality and thought that enter into the preparation and interpretation of the findings. Accomplishing these studies indicates that a lot of basic knowledge and creativity are involved as Dr. Andjelkovic pushes forward with her studies on the factors that control blood-brain permeability."

Reviewer F: "She constantly explores new angles of blood brain barrier dysfunction, yet all studies are of uncompromising quality. She has been continuously funded by NIH for many years which also attests to the innovation and high relevance of her research directions, approaches and technical excellence."

Reviewer G: "Her work, published in almost 50 journal articles, has significantly advanced our understanding of the mechanisms underlying disruption of the blood-brain barrier in cerebral vascular pathology. She has published her research in the leading journals in the field of neuroscience…In addition to her outstanding record of scholarship, Dr. Andjelkovic-Zochowska is highly respected and well-liked by her peers as a person, and by her postdoctoral trainees as a caring mentor."

Summary of Recommendations:
Dr. Andjelkovic-Zochowska is an outstanding faculty member who has accomplished a very significant amount of research in the field of neuroscience and has developed an outstanding reputation in the field. Her numerous collaborations employ novel and innovative tools to better define a number of mechanistic areas in neurologic diseases. I am pleased, therefore, to recommend the promotion of Anuska V. Andjelkovic-Zochowska, M.D., Ph.D. to professor of pathology, with tenure, Department of Pathology, Medical School.

Marschall S. Runge, M.D., Ph.D.
Executive Vice President of Medical Affairs
Dean, Medical School

May 2020