PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCES

Kanishka T. Jayasundera, M.D., associate professor of ophthalmology and visual sciences, without tenure, Department of Ophthalmology and Visual Sciences, Medical School, is recommended for the granting of tenure to be held with his title of associate professor of ophthalmology and visual sciences, Department of Ophthalmology and Visual Sciences, Medical School.

Academic Degrees

M.S. 2019 University of Michigan

M.B.Ch.B. 2000 University of Auckland, New Zealand B.S. University of Auckland, New Zealand

Professional Record

2017-present Associate Professor, without tenure, University of Michigan

2011-2017 Assistant Professor, University of Michigan

Summary of Evaluation:

Teaching: Dr. Jayasundera has a particular talent for sharing his knowledge through lectures and skills transfer courses in the United States and internationally. He is routinely invited to major conferences to present lectures at various national and international organizations, including the European Society of Retina Specialists, Asia Pacific Vitreoretinal Society, University of Sao Paulo, and the Retina Society. His expertise is internationally recognized; he organized and led an international symposium at the University of Michigan for all surgeons who implant the Argus II retinal implant, also referred to as the bionic eye. Dr. Jayasundera has trained numerous graduate and medical students and fellows in the laboratory that has led to their authorship on peer-reviewed papers, poster presentations and platform presentations at national meetings. Dr. Jayasundera is a valued mentor of the department's junior clinician-scientist faculty and has helped inspire and motivate their efforts. He has been the faculty leader/liaison for student teams from the University of Michigan engineering school. Dr. Jayasundera organized an international fellowship program for retinal dystrophies at the Kellogg Eye Center, and developed an official collaboration with the Saudi Arabian Cultural Mission to bring fellows from Saudi Arabia to be trained in the field of inherited retinal degenerations.

Research: Dr. Jayasundera's research has focused on inherited and inflammatory retinal degenerative disease. His translational research program has focused on scientific goals that are based on contributing major scientific advances to accurately diagnose, perform quantifiable phenotypic characterization of, and identify the optimal clinical endpoints for patients with autoimmune and inherited retinal degenerations. He then seeks to lead efforts to create the context of assessing gene and other regenerative therapies for restoring vision loss with these conditions. His research has been well-funded by the National Institutes of Health, foundations and clinical trials through industry. He has published more than 60 peer-reviewed articles, holds three patents and has been invited to present his research on 22 occasions regionally, nationally and internationally. In 2018, he was appointed as the Paul R. Lichter Professor of Ophthalmic Genetics.

Recent and Significant Publications:

Abalem MF, Johnson MW, Jayasundera T.: Progressive Bilateral Cecocentral Scotomata. *JAMA Ophthalmol* 137(1): 107-108, 2019.

Abalem MF, Musch DC, Birch DG, Pennesi ME, Heckenlively JR, Jayasundera T.: Diurnal variations of foveoschisis by optical coherence tomography in patients with RS1 X-linked juvenile retinoschisis. *Ophthalmic Genet.* 39(4): 437-442, 2018.

Zhao PY, Abalem MF, Nadelman D, Qian CX, Branham K, Schlegel D, Khan N, Heckenlively JR, Jayasundera T: Peripheral Pigmented Retinal Lesions in Stargardt Disease. *Am J Ophthalmol* 188: 104-110, 2018.

Dedania VS, Liu JY, Schlegel D, Andrews CA, Branham K, Khan NW, Musch DC, Heckenlively JR, Jayasundera KT: Reliability of kinetic visual field testing in children with mutation-proven retinal dystrophies: Implications for therapeutic clinical trials *Ophthalmic Genetics* 39(1): 22-28, 2018.

Abalem MF, Otte B, Andrews C, Joltikov KA, Branham K, Fahim AT, Schlegel D, Qian CX, Heckenlively JR, Jayasundera T.: Peripheral Visual Fields in ABCA4 Stargardt Disease and Correlation with Disease Extent on Ultra-widefield Fundus Autofluorescence. *Am J Ophthalmol*. 184: 181-188, 2017.

Service: Dr. Jayasundera provides exceptional clinical care to his patients in the Retina and Uveitis Service at the Kellogg Eye Center. He is one of three ophthalmologists in the United States who has combined training in inherited retinal degenerations, electrophysiological testing of the visual system and the skill set to perform vitreoretinal surgery. He is a unique expert who can best differentiate inherited retinal degenerations from autoimmune retinal degenerations and initiate and monitor treatment. Dr. Jayasundera was the first surgeon in the United States to implant the Argus II bionic eye for patients with retinitis pigmentosa after FDA approval. Additionally, he organized the first Argus II investigator meeting in 2014 to bring together all providers involved in Argus II implantations worldwide to our eye center to discuss optimizing patient outcomes for this procedure. Dr. Jayasundera serves as the associate chair for strategic implementation in the Department of Ophthalmology and Visual Sciences, is a member of the Retinal Fellow Selection Committee, and has served as the co-chair of Vision Walks in 2015 and 2016 for the Foundation Fighting Blindness, Michigan Chapter. He is an associate editor of *BMC Ophthalmology*, a reviewer for numerous peer-reviewed journals and has edited the Retinal Dystrophy Gene Atlas.

External Reviewers:

Reviewer A: "His level of scholarship is impressive, in terms of a) the number of publications, b) many as lead or senior author, c) the caliber of journals within which he has published, and d) the range of topics he has addressed ... He is as well a talented and respected teacher, evidenced by the number of invited lectures and publications and his dedication to resident and fellow education. Thiran has been highly successful in every endeavor in his academic career. He is widely regarded as one of the innovators of his generation... A motivated, talented, and ambitious [junior] clinical scientist who enthusiastically takes on challenging translational research endeavors which would give others pause."

Reviewer B: "This combination of research interests is on the cutting edge of what is going on in the field of retinal diseases...he is involved in a lot of clinical trials and research...His academic productivity has been stellar... He is a sought-out expert in this area [inherited retinal diseases] for

consultation and invited lectures...Dr. Jayasundera's [sic] is accomplished in all three legs of the academic mission, education, research and clinical care."

<u>Reviewer C:</u> "Dr. Jayasundera's teaching commitment at Michigan is extraordinary and has made a huge impact...he has trained numerous fellows from around the world...At the two universities I have been associated professionally...Dr. Jayasundera's work would meet the requirements for promotion at this level..."

Reviewer D: "He is remarkably accomplished for an individual at his level of career development and truly exceeds his peer group in the discipline of vitreoretinal diseases/retinal degenerations. There is an unmet need for specialists in his field of expertise throughout the country – the University of Michigan is fortunate to have him as an ophthalmic geneticist...His work with numerous multicentered clinical trials/research consortiums, editorial boards, and professional societies likewise demonstrate a proven ability to collaborate and contribute on a national/international level."

<u>Reviewer E</u>: "Dr. Jayasundera has already demonstrated himself to be a leader in impacting the evolving field of inherited retinal disorders. He is internationally known in this growing field and is well regarded. He is among a handful of mid-career retinal specialists with expertise in genetic diagnosis and clinical trials in inherited retinal disorders."

Reviewer F: "Dr. Jayasundera is known as an honest and capable vitreoretinal surgeon with superb training in inherited retinal diseases, autoimmune retinal degenerations and uveitis, as well as clinical electrophysiology of vision, and management of surgical and retinal medical diseases...He is involved in cutting-edge clinical research and has skills in the most advanced surgical techniques that may bring hope to these blind patients."

<u>Reviewer G</u>: "Dr. Jayasundera is very well respected in the field of ophthalmic genetics and the impact of the cutting-edge work that he is currently involved in will be substantial."

Summary of Recommendation

Dr. Jayasundera is an outstanding vitreoretinal surgeon with a unique clinical expertise in inherited retinal degeneration and autoimmune retinal diseases. He fills an important niche at the University of Michigan and is nationally and internationally known for the Argus II implantation. I am pleased, therefore, to recommend Kanishka T. Jayasundera, M.D. for the granting of tenure to be held with his title of associate professor of ophthalmology and visual sciences, Department of Ophthalmology and Visual Sciences, Medical School.

Marschall S. Runge, M.D., Ph.D.

Executive Vice President for Medical Affairs

Enchel S. Runge

Dean, Medical School