Approved by the Regents May 15, 2014

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

Alon Kahana, M.D., Ph.D., assistant professor of ophthalmology and visual sciences, Department of Ophthalmology and Visual Sciences, Medical School, is recommended for promotion to associate professor of ophthalmology and visual sciences, without tenure, Department of Ophthalmology and Visual Sciences, Medical School.

Academic Degrees:

M.D.	2001	University of Chicago
Ph.D.	1998	University of Chicago
B.A./M.A.	1991	Brandeis University

Professional Record:

2007–present	Assistant Professor of Ophthalmology and Visual Sciences, University of Michigan
2005–2007	Clinical Instructor, Department of Ophthalmology and Visual Sciences, University of Wisconsin

Summary of Evaluation:

Teaching: Dr. Kahana has a passion for teaching and has excelled at all levels from teaching high school students to mentoring faculty. He teaches health care providers throughout the region as well as nationally and internationally through lectures and skills transfer courses. He is routinely invited to major conferences to give lectures on specific topics at various national and international organizations such as the Asia-Pacific Academy of Ophthalmology Congress (APAP) and the Association for Research in Vision and Ophthalmology (ARVO). Dr. Kahana has trained a number of graduate and medical students as well as post-doctoral students in his lab, and as a member of the Graduate Program in Cellular and Developmental Biology, he interacts with graduate students on a regular basis. He participates in the Undergraduate Research Opportunity Program. On the clinical side, Dr. Kahana is currently the fellowship director for the Kellogg Eye Center. In this capacity, he is involved in curricular, regulatory, compliance, training and recruitment efforts for all the clinical fellows in the department, as well as international observers. He also mentors and teaches oculoplastic surgery fellows, mostly through the departments' ASOPRS-approved fellowship program. Dr. Kahana teaches, guides and supervises the fellows in clinic and the OR. He also helps to facilitate and supervise their clinical research projects, and provides career mentoring. He also spends time with the residents in wet lab, didactic and operating room teaching. Dr. Kahana is active in patient education initiatives. Whether these are local, as with the thyroid disease, pediatric ophthalmology and low vision support groups, or national, such as the Graves Foundation, he lends his expertise to these support group meetings. Finally, Dr. Kahana regularly gives in-service presentations to allied health professionals, to help with their professional growth and performance.

Research: Since being appointed as an assistant professor in 2007, Dr. Kahana has created an ambitious disease-oriented basic science research program. His laboratory research has focused

on understanding the biology of eye development and animal models of congenital eye disorders, tissue regeneration around the eye (in the orbit), and neuro-regeneration in the context of oculomotor control. His interests thus encompass the fields of molecular embryology, regenerative biology, stem cells and cancer. In addition, the lab utilizes human tissue to evaluate the reactivation of embryonic pathways in adult-onset thyroid eye disease. Dr. Kahana chose to work with zebrafish since he considered that to be an ideal model organism because of its particular strengths for studying embryology and regenerative biology. It was for this reason that he chose to come to the University of Michigan in large part because of the opportunity to be mentored by Daniel Goldman and Peter Hitchcock in the use of the zebrafish model, and the long and successful history of zebrafish research at the University of Michigan. Dr. Kahana is also the PI of a newly-funded investigator-initiated clinical trial on the utility of the hedgehog inhibitor vismodegib (Genentech, Inc.) as a neo-adjuvant in the treatment of basal cell carcinomas around the eye. Dr. Kahana has been very successful in grantsmanship and his research lab is funded by the NIH as well as private foundations. He was also awarded the Helmut F. Stern Career Development Professorship in Ophthalmology and Visual Sciences. Dr. Kahana is a member of the Vascular Anomaly Program, based at Mott Children's Hospital, and also a member of the International Society for the Study of Vascular Anomalies (ISSVA)– the international organizing body for classification and research on this topic. He has been very successful in establishing many productive collaborations across the campus, as well as with other institutions. Dr. Kahana has carved a unique niche for himself. He is one of a very few clinician-scientists in the field of oculofacial plastic surgery.

Recent and Significant Publications:

Bohnsack BL, Gallina DD, Thompson H, Kasprick D, Lucarelli MJ, Dootz G, Nelson C, McGonnell IM, Kahana A: Development of extraocular muscles require early signals from periocular neural crest and the developing eye, revealing an important developmental window. Archives of Ophthalmology 129:1030-1041, 2011.

Kish PE, Bohnsack BL, Gallina DD, Kasprick DS, Kahana A: The eye as an organizer of craniofacial development. Genesis 49:222-230., 2011.

Kasprick DS, Kish PE, Junttila TL, Ward LA, Bohnsack BL, Kahana A: Microanatomy of adult zebrafish extraocular muscles reveals significant morphologic similarities and differences with human extraocular muscles. PLoS One 6:e27095, 2011.

Bohnsack BL, Kasprick DS, Kish PE, Goldman D, Kahana A: Zebrafish model of Axenfeld-Rieger Syndrome reveals that pitx2 regulation by retinoic acid is essential for ocular morphogeneis and craniofacial development. Investigative Ophthalmology and Visual Sciences 53:7-22, 2012.

Bohnsack BL, Kahana A: Thyroid hormone and retinoic acid interact to regulate zebrafish neural crest development and human orbital fibroblasts. Developmental Biology 373:300-309, 2013.

Service: In addition to his ambitious research program, Dr. Kahana provides excellent clinical care to his patients in the Eye Plastic and Orbital Surgery Service at the Kellogg Eye Center as

well as at Mott Hospital in the operating room and the VA Medical Center. He has established himself as an outstanding clinician. He has a successful surgical practice that draws patients from throughout Michigan as well as from out of state, as far as Antarctica, to receive care for their complex oculoplastic disorders. In his administrative role as departmental director of fellowships, Dr. Kahana oversees the overall fellowship programs in the Department of Ophthalmology and Visual Sciences. He is also a member of the departmental Committee on Graduate Medical Education, where he assists in reviewing residency and fellowship curricula and works with the GME office, International Center and Service Leads to facilitate the department's educational missions. Dr. Kahana serves on the editorial board of Ocular Surgery News, Oculoplastic Surgery Section, as well as a reviewer for several peer-reviewed journals. He is also the section editor for Smith's Ophthalmic Plastic and Reconstructive Surgery, Orbital Surgery Section. He is on numerous committees in the department, university and on the national level, among them are the Clinical Care Committee, Education Committee, and the Nominating Committee of the American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS). Dr. Kahana is a member of the Cancer Center and the Head and Neck SPORE, the Michigan Diabetes Research Center, the Center for Organogenesis, the Vision Research Training Program, and the Graduate Program in Cellular and Developmental Biology.

External Reviewers:

Reviewer A: "Dr. Kahana is widely recognized as a scholar, and a scholar who is doing impressive, important, and applicable work....The number individuals in his subspecialty of oculoplastic and orbital surgery with serious basic science training—and the ability to apply that training successfully—is unfortunately small....When he shares his thoughts, his peers take note."

Reviewer B: "He has been a leader in the oculoplastics field with his basic science research since it is not frequent that someone in this subspecialty participates in basic science work and he should be commended....This research is innovative, interesting and has stimulated much conversation in our specialty as it begins to try to unravel the pathogenesis of thyroid eye disease which continues to challenge us today."

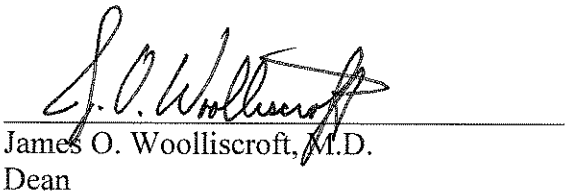
Reviewer C: "Dr. Kahana's research has altered our understanding of orbital disease, with great promise to improve treatment of orbital and improve patient care....Dr. Kahana is a leader and outstanding researcher and teacher within the field of orbital and ophthalmic plastic surgery."

Reviewer D: "It is quite noteworthy the large number of honors and awards won by Dr. Kahana over his career. Most recently these include several very prestigious awards, including the ARVO/Alcon early career clinician-scientist research award, a Career Development Professorship in Ophthalmology and in 2013 the American Academy of Ophthalmology's Achievement Award. This is really quite impressive."

Reviewer E: "I do think Dr. Kahana's scholarship has greatly impacted the field... I would consider these seminal advances in the field; indeed he has created an entirely new field in exploring genetic approaches to understanding orbital disease. I would consider these seminal advances in the field. This gives him a strong professional and scholarly niche. I am aware of

no other scientist of his caliber working in oculofacial plastic surgery at present....Dr. Kahana is an emerging superstar in the world of academic ophthalmology."

Summary of Recommendation:
Dr. Kahana has shown excellence and productivity in his clinical work, teaching, research and service and we believe he will continue to establish himself as an exemplary academic clinician-scientist both in the department, nationally and internationally. I am pleased to recommend Alon Kahana, M.D., Ph.D. for promotion to associate professor of ophthalmology and visual sciences, without tenure, Department of Ophthalmology and Visual Sciences, Medical School.



James O. Woolliscroft, M.D.
Dean
Lyle C. Roll Professor of Medicine

May 2014