

Approved by the
Regents
May 21, 2015

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

David N. Zacks, M.D., Ph.D., associate professor of ophthalmology and visual sciences, with tenure, Department of Ophthalmology and Visual Sciences, Medical School, is recommended for promotion to professor of ophthalmology and visual sciences, with tenure, Department of Ophthalmology and Visual Sciences, Medical School.

Academic Degrees:

M.D./Ph.D.	1996	Albert Einstein Medical Center, Bronx, NY
B.S.	1988	Cornell University

Professional Record:

2009-present	Associate Professor, Ophthalmology and Visual Sciences, University of Michigan
2002-2009	Assistant Professor, Ophthalmology and Visual Sciences, University of Michigan,
1997-2002	Clinical Instructor, Ophthalmology, Harvard Medical School

Summary of Evaluation:

Teaching: Dr. Zacks is one of the department's best educators, instructing medical students, residents and fellows in the clinical setting, as well as his laboratory. He has been awarded the Terry Bergstrom Faculty Teaching Award as the most outstanding teacher three times in the past decade by the residents. In addition to educating residents and vitreo-retinal fellows on the medical and surgical management of patients with a range of retinal diseases, Dr. Zacks also supervises research trainees (graduate and post-doctoral fellows) in his lab. He is a member of the NEI Vision Training Grant and lectures at the biennial ophthalmology and vision science course. Dr. Zacks' mentees have been recognized at the national level for the research they performed, with three of his trainees receiving the prestigious Retina Society Fellow Research Award. Dr. Zacks now has five trainees who are assistant professors in some of the finest ophthalmology departments in the country. A sixth trainee is now finishing his vitreo-retinal fellowship with Dr. Zacks and has accepted an academic position with Emory University. Three of these trainees have NIH-funded research efforts, and the others have significant foundation support. Dr. Zacks is a busy national and international speaker, presenting at key conferences, serving as a visiting professor, and giving named lectures, such as the Berger Memorial Lecture at the University of Pennsylvania, the Robert Watzke Lecture at Oregon Health and Science University as well as the W. Richard Green Lectureship. He serves as director of resident education on the retina service and has launched an ambitious website devoted to case-based teaching of retina cases. He has exhibited tireless commitment to house officer teaching in and after clinic.

Research: Dr. Zacks' laboratory has been instrumental in delineating many of the cell pathways that control photoreceptor apoptosis with the long-term goal of improving photoreceptor survivability in retinal diseases, including retinal detachment. It is evident from the numerous invited lectures that he is clearly a respected authority and leader in this field of research. He has R01 grant support from the NEI/NIH as well as numerous foundation grants. He has organized special interest groups at the Association for Research in Vision and Ophthalmology (ARVO) annual meeting (the largest and most important vision research meeting in the world), serves on an NEI study section, and is a regular participant in the Beckman Initiative for Macular Research Neuroprotection Panel. He has 57 high quality, peer reviewed publications and over 50 published abstracts. Dr. Zacks was awarded one of the highest honors in the field of vitreo-retinal surgery when he received and delivered the W. Richard Green Award and Lecture at the 2011 Annual Meeting of the Macula Society. In addition, he has been awarded two patents, has successfully started a company to translate his discoveries into a therapy to help patients with not only retinal detachments but potentially age-related macular degeneration, and was recently the recipient of an SBIR award by the NEI/NIH to further develop his seminal discoveries. Simply put, he is thought of as exemplar in the field as a translational clinician-scientist.

Recent and Significant Publications:

Besirli CG, Chinskey ND, Zheng QD, Zacks DN: Inhibition of retinal detachment-induced apoptosis in photoreceptors by a small peptide inhibitor of the Fas receptor. *Invest Ophthalmol Vis Sci*. 2010. 51:2177-84. Epub 2009 Oct 22. PMID: 19850829.

Yao J, Feathers KL, Khanna H, Thompson DA, Tsilfidis C, Hauswirth WW, Heckenlively JR, Swaroop A, Zacks DN: XIAP therapy increases survival of transplanted rod precursors in a degenerating host retina. *Invest Ophthalmol Vis Sci* 52:1567-1572, 2011.

Besirli CG, Chinskey ND, Zheng QD, Zacks DN: Autophagy activation in injured photoreceptors inhibits Fas-mediated apoptosis. *Invest Ophthalmol Vis Sci* 52:4193-4199, 2011.

Yao J, Jia L, Khan N, Zheng QD, Moncrief A, Hauswirth WW, Thompson DA, Zacks DN: Caspase inhibition with XIAP as an adjunct to AAV vector gene-replacement therapy: Improving efficacy and prolonging the treatment window. *PLoS One* 7(5):e37197, 2012.

Chinskey ND, Zheng QD, Zacks DN: Control of photoreceptor autophagy after retinal detachment: the switch from survival to death. *Invest Ophthalmol Vis Sci* 2014 Jan 9. Epub ahead of print. PMID: 24408986.

Service: Dr. Zacks has a distinguished national and international reputation. He has served on numerous committees for the Retina Society, Macula Society, the American Academy of Ophthalmology (Writing Committee for the Basic and Clinical Science Course), and as an ad hoc member for a National Eye Institute Study Section. Internationally he has presented invited work at the 2010 Meeting of the Club Jules Gonin in Kyoto, Japan. Clinically, Dr. Zacks has built an active retina practice at the Kellogg Eye Center and is one of our most productive retina specialists. He is well respected by ophthalmologists at the local to international levels. He is

one of a handful of surgeons who has been selected (and the first in the country) to implant the Argus II retinal chip device. This is a recently FDA approved implant that can provide visual restoration to patients completely blind from retinitis pigmentosa. He has served for over a decade on the department's Residency Selection Committee and his current membership on the Resident Clinical Competency Committee shows that he is deeply involved in the organizational processes for selecting and training the next generation of leaders in ophthalmology. Dr. Zacks continues to speak at outreach programs that provide the public with information about the clinical and research activities at the Kellogg Eye Center. Dr. Zacks also leads the departmental morbidity and mortality conferences on a monthly basis. Under his leadership, we have completely revised our conferences to deal with not only the cases presented but other patient safety and quality issues as a faculty. Finally, given his success in the initial commercialization of his discoveries, he has taken on the role for not only the department but also in conjunction with colleagues in the Medical School to help educate all of us on working with venture capital and commercialization, leading seminars with venture firms.

External Reviewers:

Reviewer A: "His accomplishments have been recognized by many national organizations such as Research to Prevent Blindness (career development award), and the Macula Society where he was invited to give the W. Richard Greene Lecture. ...he is a star in the field and the luminosity is beginning to increase steadily. There are few peers in his field that are so accomplished."

Reviewer B: "Dr. Zacks has one of the most impressive records of funding in Ophthalmology. He is a noted clinician scientist, and has been well-supported since his inaugural K08 award. ...Dr. Zacks is widely recognized as one of the top academicians in our field."

Reviewer C: "David's work is truly groundbreaking and novel. David has unraveled why vision is lost following retinal detachment, and why delayed repair of retinal detachment results in permanent vision loss because he is the only scientist who has studied the molecular mechanisms of rhegmatogenous retinal detachment....Collectively, his work has created a new paradigm for how we envision vision loss after retinal detachment....He is one of fewer than 10 active vitreoretinal surgeons in the United States who are R01 funded."

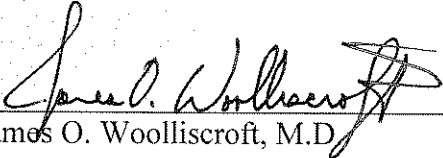
Reviewer D: "...Dr. Zacks exemplifies the ideal academic ophthalmologist. He is a true basic science leader as well as a wonderful clinician and teacher. You would be hard pressed to find an institution in this country that would not grant him Professorship with Tenure."

Reviewer E: "I probably first met Dr. Zacks as a retina fellowship applicant in the late 1990s, but know him best as a talented physician-scientist who has emerged as one of our field's brightest talents over the past decade."

Reviewer F: "David has become an international leader in our understanding of photoreceptor cell death. He has identified pathways crucial to the death of photoreceptors in the detached retina – this has led to the identification of proteins and small molecules that might rescue diseased retina....David is a remarkable asset to the University of Michigan. He is internationally recognized and would be promoted to Professor in any US academic center."

Summary of Recommendation:

Dr. Zacks has shown excellence in leadership and productivity in all areas—clinical work, research, service and teaching, and there is no doubt that his career will continue to thrive and his work will help restore sight and hope to many in the future. I enthusiastically recommend David N. Zacks, M.D., Ph.D. for promotion to professor of ophthalmology and visual sciences, with tenure, Department of Ophthalmology and Visual Sciences, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2015