

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

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

Academic Degrees:

M.D./Ph.D.	1996	Albert Einstein College of Medicine
B.S.	1988	Cornell University

Professional Record:

2002-present	Assistant Professor of Ophthalmology, University of Michigan
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Summary of Evaluation:

Teaching: Dr. Zacks teaches medical students, residents, and fellows in the clinic, the operating room, and in the laboratory. In 2005, residents voted to give him the "Terry J. Bergstrom Faculty Teaching Award" for excellence in teaching. Dr. Zacks always has two residents and two fellows with whom he works in the clinic and the operating room. Since joining the faculty in 2002, Dr. Zacks has mentored seven retina fellows and approximately 40 residents, overseeing their surgical training as well as their clinical skills vis-à-vis examination, diagnosis and medical management of retinal disorders. At the national level, he has been a guest faculty at the Heed Ophthalmologic Foundation Faculty-Resident Retreat since its inception. This retreat selects 25 of the most promising residents across the country and brings them together for one-on-one interaction with selected faculty from around the country with the aim of establishing relationships that will encourage future academic and/or research careers. Dr. Zacks is a frequent speaker at the Kellogg Eye Center, across the state, around the country, and internationally.

Research: Dr. Zacks studies the mechanisms of photoreceptor cell death, particularly during conditions that cause separation of the retina from the retinal pigment epithelium. This mechanism of apoptosis is especially important in two common and significantly debilitating conditions: retinal detachment and macular degeneration. His K08 grant supported research toward developing retinal neuroprotective therapies to improve the visual outcomes in these and other vision-threatening retinal diseases. His grants allow him to spend 50-75% of his time in the laboratory where he uses cell biology, biochemistry, animal models, and genetic analyses to define the apoptosis pathways. Additionally, Dr. Zacks has recently turned his attention to two

other treatment avenues. The first focuses on transplanting photoreceptor precursor cells into the retina. His progress thus far has garnered significant private funding to allow him to continue this promising research. The second deals with treatment of endophthalmitis, a clinically devastating intraocular infection. He is trying, with his two-pronged approach, to develop a rapid diagnostic technique as well as identify new antibiotic treatment regimens.

Recent and Significant Publications:

Chong DY, Boehlke CS, Zheng QD, Zhang L, Han Y, Zacks DN: Interleukin-6 as a photoreceptor neuroprotectant in an experimental model of retinal detachment. *Investigative Ophthalmology & Visual Sciences* 49:3193-3200, 2008.

Hall EF, Scott GR, Musch DC, Zacks DN: Adjunctive intravitreal dexamethasone in the treatment of acute endophthalmitis following cataract surgery. *Clinical Ophthalmology* 2(1):139-45, 2008.

Zacks DN, Boehlke C, Richards AL, Zheng QD: Photoreceptor neuroprotection: The role of the FAS signaling pathway. *Archives of Ophthalmology* 125:1389-95, 2007.

Zacks DN, Han Y, Zeng Y, Swaroop A: Activation of signaling pathways and stress response genes in an experimental model of retinal detachment. *Investigative Ophthalmology & Visual Sciences* 47:1691-5, 2006.

Bucher RS, Hall E, Reed DM, Richards JE, Johnson MW, Zacks DN: Effect of intravitreal triamcinolone acetonide on susceptibility to experimental bacterial endophthalmitis and subsequent response to treatment. *Archives of Ophthalmology* 123:649-53, 2005.

Service: Dr. Zacks provides vitreoretinal surgical and medical care to patients seen in the Retina Clinic at the Kellogg Eye Center in Ann Arbor. He serves on the department's Research Committee, the Retina Fellow Selection Committee, and the Resident Selection Committee. He was co-director of the annual Spring Conference (with a national audience) in 2004 and again in 2008. He reviews for all of the major ophthalmology journals and has been asked to moderate sessions at national retina meetings.

External Review:

Reviewer A: "His work is well-recognized by the field. I would place him among the top 10% of his peers who study photoreceptor degeneration in retinal detachment and is among the best in clinician scientists of this field....Dr. Zacks is an outstanding scientist and technically proficient professional whose work has significantly advanced the field of photoreceptor neuroprotection and degeneration. Success in this line of investigation will make a material difference in our eventual ability to alter the course of neural degenerative diseases that afflict the brain and eye."

Reviewer B: "Dr. Zacks is a rare individual who has been able to combine a clinically-relevant basic research program with high level vitreoretinal clinical service....Dr. Zacks has

demonstrated a proven ability to initiate a project, see it through to completion, and to publish his work in respected peer-reviewed journals....Dr. Zacks has gained great recognition for his abilities as a clinician scientist and has been invited guest faculty as a mentor to budding clinician scientists.”


Reviewer C: “Dr. Zacks has been an important contributor in the field of retinal diseases. In particular, his work on photoreceptor apoptosis in retinal detachment may have a major influence on our management of this major cause of visual loss....Dr. Zacks is recognized as an outstanding clinical scientist by his peers in the field of retinal disease. He is among a unique group of retinal specialists who have the ability to perform basic science research and then translate that research into meaningful clinical studies.”

Reviewer D: “He has won clinical teaching awards to support his excellence in teaching. He has mentored seven vitreoretinal fellows through their clinical training, fifteen students through their research and graduate work and [is] a vital and integral part of the retina service at the University of Michigan. Dr. Zacks is *excellent* in teaching and education.”

Reviewer E: “We are grateful to have him working on our area of clinical interest. David’s research involves cutting edge investigations. As we move forward to tack blindness in the 21st century, David’s work is blazing new trails....We are all indebted to David for his commitment to academic ophthalmology and his continuing research into an area that is clinically relevant and where we desperately need breakthroughs....At this point in time, his reputation is national and his promotion will only enhance the reputation of your institution.”

Summary of Recommendation:

Dr. Zacks has proven to be an assiduous researcher whose findings have built carefully on one another and brought clarity to a promising area of study. His clinical abilities and judgment are unquestionably of high quality. He is a strong teacher and mentor to trainees and a highly valued member of the faculty. I am pleased to support Dr. David Zacks for promotion to associate professor, with tenure.


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

May 2009