

PROMOTION RECOMMENDATION
UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF BIOLOGICAL CHEMISTRY

Georgios Skiniotis, Ph.D., assistant professor of biological chemistry, Department of Biological Chemistry, Medical School, is recommended for promotion to associate professor of biological chemistry, with tenure, Department of Biological Chemistry, Medical School [also being promoted to research associate professor, Life Sciences Institute].

Academic Degrees:

Ph.D.	2003	University of London
B.Sc.	1999	University of Leeds, UK

Professional Record:

2008–present	Assistant Professor of Biological Chemistry and Research Assistant Professor, Life Sciences Institute, University of Michigan
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Summary of Evaluation:

Teaching: Dr. Skiniotis has been a role model in his dedication to teaching. Dr. Skiniotis has taught in numerous courses since 2009, including Biol Chem 650 and 711, Biophysics 440, 454, 521, 602 and Chemical Biology 601. His evaluations have all been in the above average range. He has also trained four post-doctoral fellows, three graduate students, two rotation students and three undergraduate students. He currently also supervises one research investigator in his laboratory.

Research: Dr. Skiniotis' current research is based on the use of molecular EM for the structural characterization of multi-subunit macromolecular complexes. Continuing his research on cytokine receptors, a major goal of his is to fully characterize the structure of activated Leptin receptor in complex with Janus Kinase 2 (JAK2). This signaling complex plays a key role in the regulation of energy homeostasis and body weight, and perturbations in the underlying molecular mechanism are intimately associated with human disease. Dr. Skiniotis has been a recipient of a number of highly prestigious and coveted honors. While being recruited to the University of Michigan, he was selected as a Biological Sciences Scholar, an honor bestowed upon only a few of the large number of Biological Sciences recruits. In 2011, he was honored with the Pew Scholar award in Biomedical Sciences, which seeks to recognize junior investigators of outstanding promise in science relevant to the advancement of human health. Most recently he received the 2012 Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor bestowed by the United States government on science and engineering professionals in the early stages of their independent research careers.

Dr. Skiniotis is well funded, with two active R01 grants in addition to the Pew Scholar Award. His research is funded through 2016. The high level and importance of Dr. Skiniotis' work is recognized by the abundance of speaking engagements over the past few years, both nationally and internationally. Dr. Skiniotis is well recognized within the cryo-EM community, but also in the general science community as well. He has a stellar publication record, with 12 articles printed in high impact journals over the past four years.

Recent and Significant Publications:

Strunk BS, Loucks CR, Su M, Vashisth H, Cheng S, Schilling J, Brooks CL 3rd, Karbstein K, Skiniotis G: Ribosome assembly factors prevent premature translation initiation by 40S assembly intermediates. *Science* 333:1449-1453, 2011.

Westfield G, Rasmussen SGF, Su M, Dutta S, DeVree BT, Chung KY, Calinski D, Velez-Ruiz G, Oleskie AN, Pardon E, Chae PS, Liu T, Li S, Woods Jr. VL, Steyaert J, Kobilka BK, Sunahara RK, Skiniotis G: Structural flexibility of the Gas α -helical domain in the β 2-adrenoceptor Gs complex. *Proc Natl Acad Sci* 108:16086-16091, 2011.

Rasmussen SGF, DeVree BT, Zou Y, Kruse AC, Chung KY, Kobilka TS, Thian FS, Chae PS, Pardon E, Calinski D, Mathiesen JM, Shah STA, Lyons JA, Caffrey M, Gellman SH, Steyaert J, Skiniotis G, Weis WI, Sunahara RK, Kobilka BK: Crystal structure of the β 2 adrenergic receptor-Gs protein complex. *Nature* 477:549-555, 2011.

Takahashi Y, Westfield G, Oleskie AN, Trievel RC, Shilatifard A, and Skiniotis G: Structural analysis of the core COMPASS family of histone H3K4 methylases from yeast to human. *Proc Natl Acad Sci* 108:20526-20531, 2011.

Mancour LV, Daghestani HN, Dutta S, Westfield GH, Schilling J, Oleskie AN, Herbstman J, Skiniotis G: Ligand-induced architecture of the leptin receptor signaling complex. In revision in *Mol Cell*.

Service: Dr. Skiniotis' participation in department administrative activities, including committee assignments and involvement in thesis committees, has been exemplary. He has served on the departmental retreat committee and seminar committee. He is a member of several programs at the University of Michigan, including the Biophysics Training Program, the Pharmacological Sciences Training Program, the Diabetes Research and Training Center, and the Comprehensive Cancer Care Center. Dr. Skiniotis has served as an *ad hoc* reviewer for *Molecular Cell*, *EMBO Journal*, *Nature Communications*, *Biochemical Journal*, and the *Journal of Visual Experimentation*. He was also an *ad hoc* grant reviewer for the Medical Research Council (MRC, UK) in 2010. Dr. Skiniotis, even at an early stage of his career, participated in organizing the Life Sciences Institute Annual Symposium in 2010, and will do so again for 2013. He also helped to organize the Microscopy and Microanalysis meeting in Portland, Oregon in 2010.

External Reviewers:

Reviewer A: “It is obvious from his list of publications that Yiorgio is developing into a stellar independent investigator. His work is published in the best journals and his papers have a significant impact on the scientific community....He also recently received the 2012 Presidential Early Career Award for Scientists and Engineers (PECASE), a very prestigious award for a researcher in the early stages of his independent research career.”

Reviewer B: “Dr. Skiniotis is an expert in the elucidation of protein structure using molecular electron microscopy techniques. The power of the approach is widely appreciated, and individuals trained in this area are highly sought after (you will need to be proactive in retaining this fellow!)....His record surpasses that of tenured Associate Professors at my own institution as well as other institutions of similar stature.”

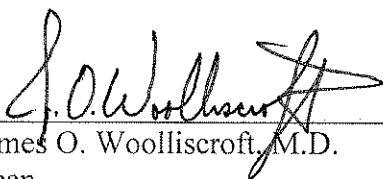
Reviewer C: “Yiorgo writes that his principal research focus is on cytokine receptors and GPCRs, and indeed, he is well on his way to becoming a leader of structural biology in that field. En route to those goals, however, he has also made some very beautiful contributions to problems such as ribosome assembly and regulation of histone methylation.”

Reviewer D: “Judging from his soaring productivity within the last three years, it appears that Dr. Skiniotis is on a steep trajectory, and will become a major intellectual force in the EM field and beyond.”

Reviewer E: “Yiorgo is a highly talented electron microscopist. He is an intelligent and thoughtful discussion partner. He is very knowledgeable about the literature and is able to dive into a new project in a very short time period. I am convinced that he will be [a] star in the EM field.”

Summary of Recommendation:

Dr. Skiniotis has made excellent progress as an independent investigator and is a superb academic citizen. He has performed well in research, teaching, and service. Accordingly, I am pleased to recommend Georgios Skiniotis, Ph.D. for promotion to associate professor of biological chemistry, with tenure, Department of Biological Chemistry, Medical School.



James O. Woolliscroft, M.D.

Dean

Lyle C. Roll Professor of Medicine

May 2013