Approved by the Regents
May 17, 2012

PROMOTION RECOMMENDATION
The University of Michigan
College of Literature, Science, and the Arts

Erik E. Nielsen, assistant professor of molecular, cellular, and developmental biology, is recommended for promotion to associate professor of molecular, cellular, and developmental biology, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	1997	Michigan State University
B.S.	1992	Purdue University

Professional Record:

2007 – present	Assistant Professor, Department of Molecular, Cellular, and Developmental Biology, University of Michigan
2000 – 2007	Adjunct Assistant Professor, Biology Department, Washington University
2000 – 2007	Assistant Member, Donald Danforth Plant Science Center
1997 – 2000	Post-doctoral Fellow, European Molecular Biology Laboratory

Summary of Evaluation:

Teaching – Professor Nielsen is an enthusiastic and effective teacher who continually seeks new ways to improve his instructional efforts. His primary teaching responsibilities have been a large enrollment 400-level course and a smaller enrollment upper-level course. He has participated in the 600-level graduate course that introduces first-year graduate students to model organisms used by the departmental faculty. Student evaluations for these courses have been consistently excellent. Professor Nielsen has also devoted considerable effort to individual training in the research laboratory, having mentored eight undergraduate students, three doctoral students, and two post-doctoral fellows.

Research – Professor Nielsen is a plant cell biologist who studies formation of the plant cell wall with a well-funded and productive research program. His research is exceptional in the use of multidisciplinary approaches and the extent of collaborations. He has been awarded significant and consistent grant funding to support his research program from the Department of Energy and the Department of Defense. He publishes his work in the top tier journals in the field and has received numerous invitations to speak at major research conferences.

Recent and Significant Publications:

"A role for CSLD3 during cell wall synthesis in apical plasma membranes of tip-growing root hair cells," with S. Park, et al., *Nature Cell Biology*, 13, 2011, pp. 973-980.

"Electron tomography of RabA4b and PI-4Kb1 labeled trans-Golgi network compartments in Arabidopsis," with B.-Y. Kang, et al., *Traffic*, 12, 2011, pp. 313-329.

"The *Arabidopsis thaliana* Rab GTPase, RabA4d, is required for the regulation of pollen tube tip growth," with A. Szumlanski, *Plant Cell*, 21, 2009, pp. 526-544.

"*RHD4* encodes a Sac1p-like PI(4)P phosphatase involved in root hair development," with J. M. Thole, et al., *Plant Cell*, 20, 2008, pp. 381-395.

Service – Professor Nielsen served on important departmental committees. At the national level, he chaired a site visit of the National Science Foundation Science and Technology Center Program, has been a grant panel reviewer for the Department of Energy, and has been a regular reviewer for several scientific journals.

External Reviews:

Reviewer (A)
"Erik most recently made another major discovery when he showed that CSLD3-containing vesicles selectively targeted to the tip of the growing cells. This was his most recent publication in Nature Cell Biology. The work will have a major impact on the field of cell wall synthesis… …it was his careful, multifaceted approach to the research that enabled Erik to gain these insights."

Reviewer (B)
"…he demonstrates ability to attract single investigator funding, but he is also willing to join teams of researchers, which is even more important in this funding climate. He gives really good lectures at meetings… …he has a strong focus on undergraduate research experience."

Reviewer (C)
"It is easy to see that he has done excellent work, that he is a valued collaborator, that he has been successful in obtaining federal support for his research and that he is recognized in the field as an expert."

Reviewer (D)
"There is no doubt that Prof. Nielsen will bring accomplishments from different angles of plant cell biology to bear in his future efforts. …[he] will be an excellent presence on your faculty for many years to come."

Reviewer (E)
"Yes, I strongly endorse his promotion and tenure at the University of Michigan. He's established a strong and innovative research program and I look to see future advances emerging from his lab."

Reviewer (F)
"Dr. Nielsen has established a number of productive collaborations. … I have heard Erik deliver a number of excellent talks at various meetings and I imagine he is a good teacher. … I would view Nielsen's case as a strong one – on the basis of his research profile I think he would very likely be tenured and promoted here. I would place him near the top of his cohort."

Reviewer (G)
"…I believe he ranks with the top group of creative and productive plant biologists [of his generation] today. … He has published several high profile articles, and there is every reason to expect more high quality, insightful work to emerge from his laboratory."

Reviewer (H)
"He stands out as one of the most promising members of the plant membrane traffic field. … It is clear that Erik is on an upward trajectory that will persist for the foreseeable future. He has and continues to be well funded and has attracted a good number of students and postdocs. …Erik is a very strong candidate for promotion to tenure."

Summary of Recommendation:
Professor Nielsen is identified as a leader in his research field. He is an excellent teacher and mentor, and he has provided valuable service within the university and at the national level. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Erik E. Nielsen be promoted to the rank of associate professor of molecular, cellular, and developmental biology, with tenure, in the College of Literature, Science, and the Arts.

Terrence J. McDonald
Arthur F. Thurnau Professor,
Professor of History and Dean,
College of Literature, Science, and the Arts

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