

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

Jennifer Ogilvie, assistant professor of physics, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of physics, with tenure, and associate professor of biophysics, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2003	University of Toronto
M.S.	1996	Simon Fraser University
B.S.	1994	University of Waterloo

Professional Record:

2007 – present	Assistant Research Scientist, Department of Biophysics, University of Michigan
2005 – present	Assistant Professor, Department of Physics, University of Michigan
2005 – 2007	Assistant Research Scientist, Biophysics Research Division, University of Michigan
2003 – 2005	Post-doctoral Fellow, Laboratoire d'Optique et Biosciences, Ecole Polytechnique

Summary of Evaluation:

Teaching – Professor Ogilvie is a rigorous and effective teacher at the undergraduate level and an outstanding mentor of graduate students. She has furthered the instructional Program in Biophysics by team-teaching a 500-level course and by developing lab components for a 400-level course. Professor Ogilvie has successfully mentored graduate and undergraduate students as well as post-doctoral scholars. She played a prominent role in the organization and expansion of the department's chapter of the Society of Women in Physics. Under her leadership the Society hosted a very successful national conference at Michigan.

Research – Professor Ogilvie is a biophysicist researching fast electronic processes of biological importance to photosynthesis. She employs two-dimensional spectroscopy – a type of non-linear optical spectroscopy in which several ultrafast laser pulses with variable time separation are applied to a system. Energy transfer and coherence properties of complex molecules that are hidden to other types of laser spectroscopy are revealed. Professor Ogilvie has applied the method to the study of energy and charge transfer in a key photosynthetic complex. This work is widely recognized as a seminal step in using two-dimensional spectroscopy to study systems involving electronic as opposed to just vibrational dynamics. She has 24 published or accepted publications; twelve of these originate from her work at Michigan. The Michigan papers are in well-renowned journals such as *Optic Letters* and *Journal of Physical Chemistry Letters*, among others.

Recent and Significant Publications:

“Two-dimensional electronic spectroscopy of the D1-D2-cyt 559 photosystem II reaction center,” with J.A. Myers, et al., *Journal of Physical Chemistry Letters*, 1(19), 2010, pp. 2774-2780.

“A comparison between coherent and spontaneous Raman scattering under biological imaging conditions,” with M. Cui and B. Bachler, *Optics Letters*, 34(6), 2009, pp. 773-775.

“Two-color two-dimensional Fourier transform electronic spectroscopy with a pulse-shaper,” with J. A. Myers, et al., *Optics Express*, 16, 2008, p. 17420.

“Interferometric coherent anti-Stokes Raman scattering spectroscopy,” with M. Cui, et al., *Optics Express*, 14, 2006, pp. 8448-8458.

Service – Professor Ogilvie has served on numerous departmental committees in Physics and Biophysics. She was faculty advisor to the Society of Women in Physics (2006- 2009) and has been instrumental in organizing several conferences of undergraduate women. She also served on several National Science Foundation and Department of Energy (DoE) proposal review panels and a DoE site review. Professor Ogilvie has been involved in the annual Michigan Physics Olympiad, which targets high-school students, and in middle-school demonstration days.

External Reviews:

Reviewer (A)

“Ogilvie is one of the leading experts in multidimensional spectroscopy, and she has pioneered applications of this remarkable technique to biological systems using optical frequencies. ... The high potential of Ogilvie’s investigations have [sic] been recognized by her colleagues and by federal funding programs. She has solid funding from multiple agencies, and has received a prestigious ‘Early Career’ award.”

Reviewer (B)

“Jennifer is off-scale in terms of productivity, with 40 papers published or in press, and another 6 in preparation. ... I would rank her in the top 5% of the very talented peers being considered for tenure at her career stage.”

Reviewer (C)

“In summary, Jennifer has performed admirably as a new faculty member. She has built up a strong research program and has quickly established herself as a leader in the field. She is an extremely critical thinker. ... Her work on PSI I is the most solid work published to date on energy transport in biological systems.”

Reviewer (D)

“I regard Professor Ogilvie as an up and coming leader on both time resolved spectroscopy and fast processes in biological systems - it is essential to know what she is up to. ... In summary, I would include [two] articles...from her CV on a list of the 10 most significant papers in the field over the last two year.”

Reviewer (E)

“...Ogilvie conducts cutting-edge multidisciplinary research at the intersection of the fields of physics, chemistry and biology. ...[she] compares very favorably to others working in similar fields and at similar stages in their careers. Her publication record is strong... The community is recognizing her contributions through invitations to speak at conferences, invited journal papers and by asking her to participate in professional activities.”

Reviewer (F)

“...the career of Jennifer Ogilvie at the University of Michigan clearly demonstrate[s] both exceptional experimental skills and a clear scientific vision of the most scientifically relevant issues. I would recommend in the strongest possible terms her promotion to a position of Associate Professor with tenure.”

Reviewer (G)

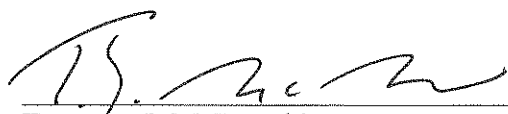
“Her standing in the community is excellent, and her program has established her as someone who is a real player. ...she has done an excellent job and is highly deserving of tenure.”

Reviewer (H)

“Given her rising trajectory, I believe that Professor Ogilvie will become a world leader in this rapidly evolving and highly cross-disciplinary area of research.”

Summary of Recommendation:

Professor Ogilvie has shown the highest intellectual quality, productivity, and leadership in creating and disseminating knowledge in physics. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Assistant Professor Jennifer Ogilvie be promoted to the rank of associate professor of physics, with tenure, and associate professor of biophysics, 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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