

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

Anna K. Mapp, associate professor of chemistry, with tenure, College of Literature, Science, and the Arts, is recommended for promotion to professor of chemistry, with tenure, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	1997	University of California at Berkeley
A.B.	1992	Bryn Mawr College

Professional Record:

2006 – present	Associate Professor, Department of Chemistry, University of Michigan
2003 – 2006	Assistant Professor, Department of Chemistry, University of Michigan
2000 – 2003	Assistant Professor, Department of Chemistry, and Assistant Professor, Department of Medicinal Chemistry, University of Michigan
1997 – 2000	National Institutes of Health Postdoctoral Fellow, California Institute of Technology

Summary of Evaluations:

Teaching – Professor Mapp is an outstanding teacher, both for the students who enroll in her classes, and for the undergraduates, graduate students, and postdoctoral scholars who carry out research in her laboratory. She has taught very effectively in graduate and undergraduate lecture courses. She has been involved in the development of the graduate chemical biology curricula for a number of initiatives on campus, including developing syllabi for a new two-semester course in chemical biology that is the keystone of the interdepartmental Ph.D. program in this area. Professor Mapp has mentored a total of fourteen undergraduate students in her laboratory, including two German exchange students. In recognition of her outstanding record, she received the LSA Class of 1923 Memorial Teaching Award in 2006.

Research – Professor Mapp is gaining both national and international recognition for her pioneering work in the field of understanding and regulating transcriptional activation. Her accomplishments to date have been very impressive and the insights that she is gaining are of great importance. She has assembled a large team of coworkers, and she adopts very challenging techniques to solve the questions that her team pursues. Her seminal research at Michigan has resulted in 35 published papers and reviews. Her program is exceptionally well funded, and she has received many awards for her research, most notably a Presidential Early Career Award for Scientists and Engineers (PECASE), and the Eli Lilly Award from the American Chemical Society Biological Chemistry Division. She has also received an impressive number of new faculty awards from various pharmaceutical companies. Her record of invited presentations at top institutions and major symposia is extraordinary.

#### Recent and Significant Publications:

- “Impact of nonnatural amino acid mutagenesis on the in vivo function and binding modes of a transcriptional activator,” with C. Y. Majmudar, et al., *Journal of the American Chemical Society*, 131, 2009, pp. 14240-2.
- “A high resolution interaction map of three transcriptional activation domains with a key co-activator from photocross-linking and multiplexed mass spectrometry,” with C.Y. Majmudar, et al., *Angewandte Chemie International Edition*, 2009, 48(38):7021-4. (Designated as a ‘VIP’ article.)
- “Transcriptional up-regulation in cells mediated by a small molecule,” with S. P. Rowe, et al., *Journal of the American Chemical Society*, 129, 2007, pp. 10654-5. (Highlighted in *ACS Chemical Biology*, 2(9), 2007, pp. 599-601).
- “A small molecule transcriptional activation domain,” with A. R. Minter and B. B. Brennan, *Journal of the American Chemical Society*, 126, 2004, pp. 10504-10505. (Highlighted in *Science*, 305, 2004, p. 1092; *Nature*, 431, 2004, p. 144, *The Scientist*, 18(21), 2004, p. 30, and *Chemical and Engineering News*, 82(33), 2004, p. 23.)

Service – Professor Mapp has been exceptionally effective in the service roles that she has taken on. She serves on a number of important departmental and university committees and is involved in a range of key initiatives on campus. She has served as chair of the Chemistry Graduate Committee (2006-2009) and she is taking on the role of director of Chemical Biology Ph.D. program. Additionally, she is involved in a committee to develop a joint B.S./M.S. program with Xavier University. This effort will be an important step in training and recruiting talented underrepresented minority students with interests in chemistry. On a national level, she serves as an associate editor of the *ACS Chemical Biology* journal, is a regular member of an NIH study section, and was a mentor in NIH grant-writing workshops for early stage investigators.

#### External Reviews:

##### Reviewer (A)

“Many, perhaps most, self-described chemical biology researchers have simply relabeled what they are doing as chemical biology...without any biological question in sight. Anna is an exception. She has always had an important biological question...underlying all of her research.. If I were to define Anna’s field narrowly as small molecule transcription regulators, I would say that she is as good as anyone in the world.”

##### Reviewer (B)

“Her early research at Michigan...was highly original in the field of transcription biology. ... Mapp has combined the power of chemical synthesis with elegant biological assays for discovering novel functional specificity. ... Anna is a highly sought after lecturer. Her research presentations are clear, visionary, but no overstatement.”

##### Reviewer (C)

“...I was somewhat surprised to discover that Anna had not yet become Full Professor. I say this because in the field of chemistry as well as chemical biology, she’s extremely highly regarded. ... I believe that Anna Mapp ranks in the highest tier of the emerging class of chemical biologists... this promotion should be implemented ASAP.”

Reviewer (D)

"...Anna has taken a completely new direction toward generation of artificial transcription factors, using novel approaches that go far beyond either the Dervan or Ptashne contributions to this field. ... Without doubt, these contributions to the field rank Anna among the top tier investigators in chemical biology. ...Anna's contributions to the transcription field are first rate and her publications in the field are nothing short of spectacular."

Reviewer (E)

"...I think that Anna is the most likely to make a discovery that will change science in some fundamental way. ... I see in Anna the curiosity and ability to master whatever skill is necessary to solve a problem that I have seen previously in only a few people..."

Reviewer (F)

"Creating the small-molecule transcriptional activators that are at the end of her reductionist progression represents the most significant of her contributions. ... Simply put, this finding [that small molecules can replace large proteins as transcriptional activators] is a landmark in chemical biology. ... Dr. Mapp is a notably forthright scholar. She is setting a standard for the field of chemical biology that is high, but genuine. Accordingly, I am confident that her already substantial standing in the scientific community will continue to grow at a rapid and persistent pace. ... She is a star!"

Reviewer (G)

"Anna is very special and strongly deserving of promotion to full professor in your department. ... She is widely recognized as the leader in this important area [small molecule control of transcription] and is accordingly asked to speak at many important venues. She's a terrific ambassador for your department and university."

Summary of Recommendation:

Professor Mapp is widely recognized as one of the top chemical biologists of her generation. She is a conscientious and dedicated educator and her service contributions exceed the call of duty. The Executive Committee of the College of Literature, Science, and the Arts and I recommend that Associate Professor Anna K. Mapp be promoted to the rank of professor of chemistry, 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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