PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF PATHOLOGY COLLEGE OF LITERATURE, SCIENCE, AND THE ARTS DEPARTMENT OF BIOPHYSICS

T<u>omasz Cierpicki, Ph.D.</u>, associate professor of pathology, with tenure, Department of Pathology, Medical School, and associate professor of biophysics, without tenure, Department of Biophysics, College of Literature, Science, and the Arts, is recommended for promotion to professor of pathology, with tenure, Department of Pathology, Medical School, and professor of biophysics, Department of Biophysics, College of Literature, Science, and the Arts.

Academic Degrees:

Ph.D.	2002	University of Wroclaw, Poland
M.S.	1998	Wroclaw University of Technology, Poland

Professional Record:

2016 - present	Associate Professor of Pathology, with tenure, University of Michigan	
2016 - present	Associate Professor of Biophysics, without tenure, University of Michigan	
2010 - 2016	Assistant Professor of Biophysics, University of Michigan	
2009 - 2016	Assistant Professor of Pathology, University of Michigan	
2006 - 2009	Research Assistant Professor of Molecular Physiology and Biological Physics,	
	University of Virginia	

Summary of Evaluation:

<u>Teaching</u>: Dr. Cierpicki has had extensive teaching experience in the Departments of Pathology and Biophysics. He has been an instructor in ChemBio 502, since 2012, and has frequently served as the course director. He also instructs in Path 501, and is a lecturer for Bioinf 528 and Medicinal Chemistry 535 and 635. Dr. Cierpicki mentors in the laboratory and has served on 28 dissertation committees. Through his expertise in NMR spectroscopy, he promotes the use of NMR technology through his instruction and mentorship. Dr. Cierpicki has mentored nine graduate students and 17 fellows. He also serves on recruitment committees for the doctoral Program in Biomedical Sciences (PIBS) and Chemical Biology.

<u>Research</u>: Dr. Cierpicki's research is in the field of menin (a co-factor of MLL protein) biology, and menin inhibitors. Since starting his lab in 2009, his group characterized the details of the menin-MLL interaction and developed the first small molecule inhibitors of menin-MLL. They have since developed a number of other inhibitors that have undergone animal trials and are currently in phase I/IIa clinical trials for AML patients; the results show promising effects. The findings derived from his research have and will continue to have a significant impact on the field of cancer and inhibitors of critical pathways. His work has continually been funded from external sources, including the NIH as well as foundations and industry, and he has been invited to present his work extensively at national and international conferences and universities. Dr. Cierpicki has published 96 peer-reviewed articles, many in top-tier journals, and has been invited to present his research on 47 occasions regionally, nationally and internationally. He has also been granted seven patents.

Recent and Significant Publications:

Rogawski DS, Deng J, Li H, Miao H, Borkin D, Purohit P, Song J, Chase J, Li S, Ndoj J, Klossowski S, Kim E, Mao F, Zhou B, Ropa J, Krotowska M, Jin Z, Ernst P, Feng X, Huang G, Nishioka K, Kelly S, He M, Wen B, Sun D, Muntean A, Dou Y, Maillard I, Cierpicki T, Grembecka J: First-in-class inhibitors of ASH1L histone methyltransferase with anti-leukemic activity. *Nat Commun*: 2021. (In Press)

Shukla S, Ying W, Gray F, Yao Y, Simes, ML, Zhao Q, Miao H, Cho HJ, González-Alonso P, Winkler A, Lund G, Purohit T, Kim EG, Zhang X, Ray JM, He S, Nikolaidis C, Ndoj J, Wang J, Jaremko L, Jaremko M, Ryan RJH, Guzman ML, Grembecka J, Cierpicki T: Small molecule inhibitors targeting Polycomb Repressive Complex 1 RING domain. *Nat Chem Bio*: 2021. (In Press)

Huang H, Howard CA, Zari S, Cho HJ, Shukla S, Li H, Ndoj J, González-Alonso P, Nikolaidis C, Abbott J, Rogawski DS, Potopnyk MA, Kempinska K, Miao H, Purohit T, Henderson A, Mapp A, Sulis ML, Ferrando A, Grembecka J, Cierpicki T: Covalent inhibition of NSD1 histone methyltransferase. *Nat Chem Biol* 16(12): 1403-1410, 2020. PM32868895/PMC7669657

Klossowski S, Miao H, Kempinska K, Wu T, Purohit T, Kim E, Linhares BM, Chen D, Jih G, Perkey E, Huang H, He M, Wen B, Wang Y, Yu K, Lee SC, Danet-Desnoyers G, Trotman W, Kandarpa M, Cotton A, Abdel-Wahab O, Lei H, Dou Y, Guzman M, Peterson L, Gruber T, Choi S, Sun D, Ren P, Li LS, Liu Y, Burrows F, Maillard I, Cierpicki T, Grembecka J: Menin inhibitor MI-3454 induces remission in MLL1-rearranged and NPM1-mutated models of leukemia. *J Clin Invest* 130(2): 981-997, 2020. PM31855575/PMC6994154

Gray F, Cho HJ, Shukla S, He S, Harris A, Boytsov B, Jaremko L, Jaremko M, Demeler B, Lawlor ER, Grembecka J, Cierpicki T: BMI1 regulates PRC1 architecture and activity through homo- and hetero-oligomerization. *Nat Commun* 7: 13343, 2016. PM27827373/PMC5105191

<u>Service</u>: Dr. Cierpicki has and continues to provide extensive service departmentally, institutionally, and nationally to enhance training and career development. Internationally, he has served as a grant reviewer for the National Science Center in Poland, the Swiss National Science Foundation, and the Foundation for Polish Science. Nationally, he has served on several study sections for the National Institutes of Health, National Science Foundation, and as a grant reviewer for the American Cancer Society. Institutionally, he is a member of the Cancer Research Committee, Center for Discovery of New Medicines, Biomedical Research Council and Michigan Drug Discovery. He is also a reviewer for 29 journals, including *Nature Chemical Biology* and *Oncotarget*.

External Reviewers:

<u>Reviewer A</u>: "Dr. Cierpicki is one of the leading academic researchers in the field of cancer epigenetics drug discovery...I have immense respect and appreciation for Cierpicki's remarkable achievements in this field. I attribute much of his success to scientific excellence in this field, innovative use of NMR spectroscopy in ligand discovery and characterization, and rigorous adherence to best practices in generating and characterizing chemical inhibitors."

<u>Reviewer B</u>: "His work has influenced many in the Chemical Biology community, included my own; by demonstating the 'druggability' of these protein: protein interfaces (PPIs), many in the field have been encouraged to explore additional challenging PPIs as drug targets. It is clear that he is an accomplished, internationally recognized leader in this field. In this age of limited funding, Dr. Cierpicki's successes in securing support for his lab are commendable. In particular, his impressive

NIH funding is noteworthy. This speaks well of his ability to present his research in a compelling way to funding audiences and the high regard in which his peers hold his research program."

<u>Reviewer C</u>: "Overall, Tomasz's group easily ranks as one of the most influential epigenetic medicinal chemistry labs in the world. Tomasz has established a track record of excellence. Going forward, I fully anticipate that Tomasz will continue to do research of the highest quality and impact. In this context, Tomasz has also built a vibrant, dynamic, and productive research team and is thought of as a skilled and caring mentor."

<u>Reviewer D</u>: "In my view, he is one of only a handful of academic investigators making real strides to develop new drugs for leukemia. I recognize that Tomasz doesn't consider himself someone who makes drugs, but rather his contributions are in structural biology and making probe compounds, yet his approach and these lead compound have clearly opened up new drug discovery space."

<u>Reviewer E</u>: "I am continuously and extremely impressed by Dr. Cierpicki's dedication to high quality and rigorous research. I believe this is one of his major strengths as a scientist. It is envious that he does not shy away from tackling the most pressing questions in the field. In fact, I consider Dr. Cierpicki one of the world's experts in this area. In my opinion, Dr. Cierpicki far exceeds all the metrics of a highly productive and scientific leader in his field of research, and of a tenured research faculty."

Summary of Recommendation:

Dr. Cierpicki is an outstanding researcher with many years of expertise in medicinal chemistry designing potential therapeutic targets in for use in cancer treatment. He is an outstanding research and mentor with notable service. We are pleased to recommend Tomasz Cierpicki, Ph.D. for promotion to professor of pathology, with tenure, Department of Pathology, Medical School, and professor of biophysics, without tenure, Department of Biophysics, College of Literature, Science, and the Arts.

Manuel A. Runge

Marschall S. Runge, M.D., Ph.D. Executive Vice President for Medical Affairs Dean, Medical School

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Anne Curzan, Dean Geneva Smitherman Collegiate Professor of English Language and Literature, Linguistics, and Education Arthur F. Thurnau Professor College of Literature, Science, and the Arts

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