

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PATHOLOGY

Jolanta E. Grembecka, Ph.D., assistant professor of pathology, Department of Pathology, Medical School, is recommended for promotion to associate professor of pathology, with tenure, Department of Pathology, Medical School.

Academic Degrees:

Ph.D.	2000	Wroclaw University of Technology, Poland
M.S.	1995	University of Opole, Poland

Professional Record:

2011-present	Faculty Associate, Interdepartmental Program in Medicinal Chemistry, University of Michigan
2009-present	Assistant Professor of Pathology, University of Michigan
2006-2009	Research Assistant Professor, University of Virginia

Summary of Evaluation:

Teaching: Dr. Grembecka teaches graduate students and post-doctoral students, the former in both formal courses and in the laboratory, and the latter in the laboratory. Her formal teaching in medicinal chemistry and chemical biology courses have included as many as 16 hours annually and more recently about 10 hours with the average student class size of 25. For her course work, her overall ratings currently are approximately 4.6 out of 5. In her laboratory, currently there are three graduate students and four post-doctoral fellows. She has previously taught an additional five postdoctoral fellows in the laboratory setting. She has served on six dissertation committees. In terms of the quality of laboratory teaching, she is regarded as an enthusiastic, highly-organized instructor. Overall, she is considered to be an effective teacher with teaching concentrated in the research laboratory.

Research: Dr. Grembecka's research includes the characterization and inhibition of protein-protein interactions involved in oncogenesis, the discovery and development of small molecule inhibitors for targeted therapies and cancer, the targeting of MLL fusion proteins in leukemia with small molecule inhibitors and therapeutic targeting of epigenetic regulators. Since beginning at the University of Michigan, she has been a co-author of 26 publications in high-quality, high-impact, peer-reviewed journals, on which she has been the first author of two and the senior author of six. In recognition of her outstanding scientific accomplishments, she has had three prestigious awards, the American Cancer Society Research Scholar Recipient, Leukemia and Lymphoma Society Scholar Recipient Career Development Award, and she was an inductee into the University of Michigan League of Research Excellence. Her work has been constantly funded from external sources, including the NIH, the Leukemia and Lymphoma Society, the American Cancer Society and one corporation, Kura Oncology, Inc. In recognition of her work, she has been invited to present outside the University of Michigan 26 times including at a Keystone meeting and two Gordon Conferences, the most recent in June 2015. She has also presented her work at numerous other symposia and at three industry seminars including Amgen, Acetylon, and Novartis. She has served on study sections for the NIH and the Leukemia and Lymphoma Society and for foundations in Italy, the Czech Republic, Switzerland and Poland.

Recent and Significant Publications:

Grembecka J*, Belcher AM, Hartley T, Cierpicki T* (*Corresponding author): Molecular basis of the mixed lineage leukemia-menin interaction: implications for targeting mixed lineage leukemias. *J Biol Chem* 285: 40690-40698, 2010.

Grembecka J*, He S, Shi A, Purohit T, Muntean AG, Sorenson RJ, Showalter HD, Murai MJ, Belcher AM, Hartley T, Hess JL, Cierpicki T* (*Corresponding author): Menin-MLL inhibitors reverse oncogenic activity of MLL fusion proteins in leukemia. *Nat Chem Biol* (this publication was highlighted in *Nat Rev Cancer* 12:154, 2012 and *Nat Rev Drug Discov* 8:277-284, 2012).

Shi A, Murai MJ, He S, Lund G, Hartley T, Purohit T, Reddy G, Chruszcz M, Grembecka J*, Cierpicki T* (*Corresponding author): Structural insights into inhibition of the bivalent menin-MLL interaction by small molecules in leukemia. *Blood (selected as a plenary article)* 120: 4461-4469, 2012.

He S, Senter TJ, Pollock J, Han C, Upadhyay SK, Purohit T, Gogliotti RD, Lindsley CW, Cierpicki T, Stauffer SR, Grembecka J* (*Corresponding author): High-affinity small molecule inhibitors of the menin-Mixed Lineage Leukemia (MLL) interaction closely mimic a natural protein-protein interaction. *J Med Chem* 57:1543-1556, 2014.

Borkin D, He S, Miao H, Pollock J, Chase J, Zhao T, Wang J, Purohit T, Wen B, Zong H, Jones M, Danet-Desnoyers G, Guzman ML, Talpaz M, Bixby DL, Sun D, Hess JL, Muntean AG, Maillard I, Cierpicki T, Grembecka J* (*Corresponding author): Pharmacologic inhibition of the menin-MLL interaction blocks progression of MLL leukemia *in vivo*. *Cancer Cell* (this paper was highlighted in *Cancer Cell* 27:43, 2015; *Nat Rev Cancer April 16, 2015* and *Cancer Discov* 27:589-602, 2015).

Service: Dr. Grembecka has been on several committees at the University of Michigan, including graduate programs in PDIS, Chemical Biology, Medicinal Chemistry, and the Molecular and Cell Pathology Doctoral Program Preliminary Exams Committee. She has been an active recruiter for the Chemical Biology Doctoral Program as well as being a member of the Admission Committee for that program. At the national level, she has been a member of the AACR Chemistry Program Selection Committee and a co-chair of the Organizing Committee for an Epigenetic Symposium sponsored by the University of Michigan and Cayman Chemical. She has been an ad hoc reviewer for 17 high-impact journals.

External Reviewers:

Reviewer A: "Dr. Grembecka's research is of the highest quality and she is having a tremendous impact in the fields of epigenetic, chemical biology and cancer therapeutics. Her work on Menin-MLL inhibitors is a seminal contribution to this field and is likely to have clinical impact in the near future...I truly view her as a leader in this field and therefore fully support promotion."

Reviewer B: "...Dr. Grembecka's work in developing menin-MLL inhibitors will greatly impact development of new therapeutics for MLL leukemia and possibly other cancers. Her research accomplishments are outstanding, and she has been successful with publishing papers in top ranked journals while funding her research with numerous prestigious grants. Without any doubts, Dr. Grembecka's achievements make her a leader in the academic drug discovery field."

Reviewer C: “What she has accomplished working as a single PI in an academic laboratory is to identify a target, select a lead compound, optimize it and work to medicinalize it. This is usually the work of dozens to hundreds of investigators using the resources of big pharmaceutical companies but Dr. Grembecka has accomplished this in an academic research laboratory. This is an honestly astounding accomplishment.”

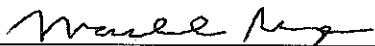
Reviewer D: “Dr. Grembecka has not only developed novel small molecular inhibitors of protein-protein interactions for use in the therapy of leukemia but collaborated to turn these into bona fide potential therapeutics and developed guidelines for development of such compounds that will guide the field for the next several years. ...Dr. Grembecka has demonstrated a sustained record of publication and a funding. She has developed a novel independent research program that is truly original and contributed to leukemia therapy, concepts of structural biology and medicinal chemistry.”

Reviewer E: “...Dr. Grembecka is an exceptional investigator, teacher and mentor with a remarkable track record of accomplishments. Given her outstanding trajectory and the very high intrinsic value of her research program, she would easily secure a tenure position [at my institution.]”

Reviewer F: “Dr. Grembeck is the unequivocal leader in the research area of developing small-molecule inhibitors of menin/MLL....It is very rare for a medicinal chemistry lab to publish in high impact journals such as Cancer Cell. Dr. Grembecka sets a very high standard for other medicinal chemists. She has consistently published her work in high impact journals.”

Summary of Evaluation:

Dr. Grembecka is a highly-renowned and extraordinarily productive scientist who has made significant contributions to the field of small molecule inhibitors of protein-protein interactions in leukemia. She is a superb educator and mentor, and she has made strong contributions both in external and internal service. I am pleased to recommend Jolanta E. Grembecka, Ph.D. for promotion to associate professor of pathology, with tenure, Department of Pathology, Medical School.



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

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