PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF SURGERY DEPARTMENT OF CELL AND DEVELOPMENTAL BIOLOGY

Marina Pasca di Magliano, Ph.D., associate professor of surgery, with tenure, Department of Surgery, and associate professor of cell and developmental biology, without tenure, Department of Cell and Developmental Biology, Medical School, is recommended for promotion to professor of surgery, with tenure, Department of Surgery, and professor of cell and developmental biology, without tenure, Department of Cell and Developmental Biology, Medical School.

Academic Degrees:

Ph.D. 2002 University of Vienna, Vienna, Austria

B.S. 1996 Federico II University of Naples, Napoli, Italy

Professional Record:

2015-present	Associate Professor of Surgery, with tenure, University of Michigan
2015-present	Associate Professor of Cell and Developmental Biology, without tenure,
-	University of Michigan
2008-2015	Assistant Professor of Surgery, University of Michigan
2008-2015	Assistant Professor of Cell and Developmental Biology,

University of Michigan

Summary of Evaluation:

Teaching: Dr. Pasca di Magliano teaches and serves as a mentor to graduate and post-doctoral students, as well as junior faculty, focusing on fundamental skills of scientific thinking, project design, data analysis, scientific presentation and writing. She is a lecturer and course director for graduate programs: Cancer Biology, Cell and Development Biology, Cell and Molecular Biology, Pathology, and the Medical Scientist Training Program. Dr. Pasca di Magliano is currently active on multiple T32 training grants; she is the co-principal investigator for the organogenesis training grant. Dr. Pasca di Magliano teaches and mentors students in her own lab, and since 2008 has mentored twelve graduate students and five post-doctoral trainees. Many of these trainees have successfully competed for external funding, government grants, and various research-specific awards. Recently, Dr. Pasca di Magliano expanded her teaching responsibility by assuming the role of coach in the R01 Boot Camp, a program supported by the Office of the Dean aimed at coaching junior faculty through their first R01 submission. Additionally, she recently was appointed as the co-director of the Cold Spring Harbor Laboratory Pancreatic Cancer Workshop which provides comprehensive instruction on different areas of pancreatic cancer research, from clinical diagnosis management to research on different aspects of the cancer's biology, to trainees throughout the country.

<u>Research</u>: Dr. Pasca di Magliano's research is focused on understanding the functional interactions among the cellular components of the pancreatic cancer microenvironment. A key goal of her research program is centered on understanding the basis of the immune suppression

that is characteristic of pancreatic cancer, and then to target these interactions to render pancreatic cancer susceptible to immunotherapy. Throughout her career, she has employed different approaches including genetically engineered mouse models of pancreatic cancer, syngeneic transplantation models, human primary pancreatic cancer cell lines and human organoids. Her laboratory has led an effort aimed at mapping the cell composition, and transcriptional profile of human pancreatic cancer and patient blood. As a result, her lab is now able to derive important information from individual patient samples with the ultimate goal of devising strategies for personalized immunotherapy. Her research has been published in some of the most prestigious academic journals and has been cited thousands of times by other researchers. In addition to writing and submitting research, Dr. Pasca di Magliano has also been invited to present at multiple meetings and conferences, on both a national and international stage. She is the principal investigator of several National Institutes of Health grants, including R01, U01, and a T32 training grant; she also has been externally funded by an American Cancer Society research scholar grant. Dr. Pasca di Magliano has published more than 55 peer-reviewed articles, and has been invited to present her research on 44 occasions regionally, nationally and internationally.

Recent and Significant Publications:

Halbrook CJ, Pontious C, Kovalenko I, Lapienyte L, Dreyer S, Lee HJ, Thurston G, Zhang Y, Lazarus J, Sajjakulnukit P, Hong HS, Kremer DM, Nelson BS, Kemp S, Zhang L, Chang D, Biankin A, Shi J, Frankel TL, Crawford HC, Morton JP, Pasca di Magliano M, Lyssiotis CA: Macrophage-released pyrimidines inhibit gemcitabine therapy in pancreatic cancer. *Cell Metabolism*, 29(6): 1390-1399, 2019.

Schofield HK, Zeller J, Espinoza C, Halbrook CJ, Del Vecchio A, Magnuson B, Fabo T, Daylan AEC, Kovalenko I, Lee HJ, Yan W, Feng Y, Karim SA, Kremer DM, Kumar-Sinha C, Lyssiotis CA, Ljungman M, Morton JP, Galbán S, Fearon ER, Pasca di Magliano M: Mutant p53R270H drives altered metabolism and increased invasion in pancreatic ductal adenocarcinoma. *JCI Insight*, 3(2): 97422, 2018.

Schofield HK, Tandon M, Park MJ, Halbrook CJ, Ramakrishnan SK, Kim EC, Shi J, Omary MB, Shah YM, Esni F, Pasca di Magliano M: Pancreatic HIF2α stabilization leads to chronic pancreatitis and predisposes to mucinous cystic neoplasm. *Cellular and Molecular Gastroenterology and Hepatology*, 5(2): 169-185.e2, 2017.

Zhang Y, Yan W, Mathew E, Kane KT, Brannon A, Adoumie M, Vinta A, Crawford HC, Pasca di Magliano M: Epithelial-myeloid cell crosstalk regulates acinar cell plasticity and pancreatic remodeling in mice. *Elife*, 6: 2017.

Zhang Y, Velez-Delgado A, Mathew E, Li D, Mendez FM, Flannagan K, Rhim AD, Simeone DM, Beatty GL, Pasca di Magliano M: Myeloid cells are required for PD-1/PD-L1 checkpoint activation and the establishment of an immunosuppressive environment in pancreatic cancer. *Gut*, 66(1):124-136, 2016.

<u>Service</u>: Within the institution, Dr. Pasca di Magliano serves as a member of the Medical School Infrastructure Committee, Medical School Research Strategy Committee, and the Medical School Capital Acquisition Committee. She also serves as the associate chair for research for the

Department of Surgery in which she oversees the Research Advisory Committee, organizes the annual Moses Gunn Research Conference, oversees space and research facilities and resources, and reviews animal protocol applications for the department. Within the Rogel Cancer Center, Dr. Pasca di Magliano is a member of the Executive and Research Committees; she is also a coleader of the Cancer Biology Program. Beyond her contributions to the University of Michigan, she is a member of the Tumor Microenvironment study section at the National Institutes of Health, the Cell Structure and Metastasis study section at the American Cancer Society; and has served multiple times on the Panc-01 section for the Department of Defense. She reviews grant submissions for many foreign organizations, including the United Kingdom's Medical Research Council, and Cancer Research groups, and the French National Cancer Institute. Finally, Dr. Pasca di Magliano serves as a member on the editorial board of *Gastroenterology* and is an associate editor for *JCI Insight*. Dr. Pasca di Magliano is the associate chair for Research for the Department of Surgery. Her research is focused on understanding the interactions among the cellular components of the pancreatic cancer microenvironment. Her expertise and contributions to the fields of pancreatic cancer research recognized by her peers nationally and internationally.

External Reviewers:

Reviewer A: "Marina's work is rigorous and high quality...Marina's own work is focused on pancreatic cancer, its initiation, development, and the microenvironment of pancreatic cancer. This is an exciting and fast-paced arena in a field that is full of politics. Marina stands above the politics and lets the data speak for itself. Marina's work will stand the test of time and will be highly cited...I rank Marina as one of the most impactful pancreatic cancer researchers working today."

<u>Reviewer B</u>: "Dr. Pasca Di Magliano is amongst those in her peer group whom I respect greatly. What she presents and writes advances my knowledge."

Reviewer C: "Dr. Pasca di Magliano is one of the most respected pancreatic cancer researchers in the country, based on her seminal discoveries...Dr. Pasca di Magliano has made important discovering in the field, whose impact is felt far beyond the walls of the University of Michigan...Nationally and internationally, she is exceptionally well-recognized and respected...It would not be an exaggeration to state that when the list of sought after experts in the country on pancreatic cancer and the tumor microenvironment comes up, Dr. Pasca di Magliano is in the top three on everyone's list."

Reviewer D: "Dr. Pasca Di Magliano has a prominent standing in the pancreatic research community and provides significant service to the field...Dr. Pasca Di Magliano has clearly established herself as a leading scientist in pancreatic cancer research...Her work has significant therapeutic implications for pancreatic cancer."

Reviewer E: "Dr. Pasca di Magliano is a well-known pancreatic cancer researcher and developmental biologist who has contributed critical new knowledge to our field...Marina has made a series of observations in mouse models and human tumors that form the basis for our understanding of cell microenvironment interactions in pancreatic cancer...Marina's models have paved the way for her group and others to clearly identify critical aspects of cell behavior that have led to new fundamental and therapeutic insights."

Summary of Recommendations:

Dr. Pasca di Magliano is a highly successful researcher in a clinical department who is making important discoveries especially related to pancreatic cancer. She is an excellent educator and has a strong international reputation as a scholar. I am pleased, therefore, to recommended Marina Pasca di Magliano, Ph.D. for promotion to professor of surgery, with tenure, Department of Surgery, and professor of cell and developmental biology, without tenure, Department of Cell and Developmental Biology, Medical School.

Marschall S. Runge, M.D., Ph.D.

Executive Vice President for Medical Affairs

Dean, Medical School

May 2020