# PROMOTION RECOMMENDATION THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL DEPARTMENT OF INTERNAL MEDICINE

Phillip L. Palmbos, M.D., Ph.D., assistant professor of internal medicine, Department of Internal Medicine, Medical School, is recommended for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

# **Academic Degrees:**

M.D.	2008	University of Michigan
Ph.D.	2008	University of Michigan
B.S	2000	Calvin College

### Professional Record:

2016–present Assistant Professor of Internal Medicine, University of Michigan Clinical Lecturer of Internal Medicine, University of Michigan

# Summary of Evaluation:

<u>Teaching:</u> Dr. Palmbos considers the mentorship of students and medical trainees to be his most important teaching contribution. He provides hands-on laboratory teaching in experimental design, scientific methods, statistical analysis, data interpretation, and research ethics to undergraduate and graduate students as well as postdoctoral fellows. Dr. Palmbos is also active in clinical teaching and has developed curricula on a variety of topics such as immunotherapy complications and systemic therapy for bladder cancer. He engages in classroom instruction as well, teaching a unit on the management of metastatic bladder cancer to the urology clinical residents and teaching a section on invasion and metastasis for the Cancer Biology 554 graduate course. Dr. Palmbos not only teaches medical students and trainees but also the community at large, presenting at events sponsored by the Rogel Cancer Center in which he educates members of the community on cancer research and its management. He has also taught fellow oncologists about the management of bladder cancer.

Research: The goal of Dr. Palmbos' research is to determine the molecular mechanisms that drive invasive progression and resistance to immunotherapy and develop treatments that block these mechanisms to improve outcomes for patients with bladder cancer. Currently, Dr. Palmbos is studying the mechanisms of tripartite motif 29 (TRIM29)-mediated invasive progression. He has a consistent record of funding from federal, industry, and foundation sponsors including the National Institutes of Health, Damon Runyon Cancer Research, the Prostate Cancer Foundation, and MICHR. He was awarded an R01 to clarify how TRIM29 mediates invasive progression via FAK signaling which was then converted to an R37 Merit Award as the principal investigator. At the end of this project, Dr. Palmbos hopes to have developed a set of drugs targeting TRIM29/FAK signaling and preventing bladder cancer progression to a lethal invasive disease. In addition to his independent research, he has become a member of several collaborative research teams at the University of Michigan. He has authored 30 peer-reviewed publications, in high-impact journals in his field such as the *Journal of Clinical Oncology*, the *International Journal of Molecular* 

*Sciences*, and *Tomography*. Dr. Palmbos has received both national and institutional awards for his research including the Prostate Cancer Foundation Challenge Award, The Kemp Cease Special Award, and the University of Michigan Urology Collaboration Award.

## Recent and Significant Publications:

- Palmbos PL, Daignault-Newton S, Tomlins SA, Agarwal N, Twardowski P, Morgans AK, Kelly WK, Arora VK, Antonarakis ES, Siddiqui J, Jacobson J, Davenport MS, Robinson DR, Chinnaiyan AM, Knudsen KE, Hussain M, "A Randomized Phase II Study of Androgen Deprivation Therapy with or without Palbociclib in RB-positive Metastatic Hormone Sensitive Prostate Cancer (mHSPC)," *Clin Cancer Res* 2021 Jun 1;27(11):3017-3027.
- Lorenzatti Hiles G, Cates AL, El-Sawy L, Day KC, Broses LJ, Han AL, Briggs HL, Emamdjomeh A, Chou A, Abel EV, Liebert M, Palmbos PL, Udager AM, Keller ET, Day ML, "A surgical orthotopic approach for studying the invasive progression of human bladder cancer," *Nat Protoc* 2019 Mar;14(3):738-755.
- Bankhead A, McMaster T, Wang Y, Boonstra PS, Palmbos PL, "TP63 Isoform Expression is Linked with Distinct Clinical Outcomes in Cancer," *EBioMedicine* 2020 Jan;51:102561.
- Wang Y, Day ML, Simeone DM, Palmbos PL, "A 3-D Cell Culture System for Studying Invasion and Evaluating Therapeutics in Bladder Cancer," *J Vis Exp* 2018 Sep 13;(139).
- Palmbos PL, Wang Y, Bankhead A, Kelleher A, Wang L, Yang H, Ahmet M, Welling S, Magnuson B, Leflein J, Lorenzatti G, Abel E, Dziubinksi ML, Urs S, Day ML, Ljungman ML, Simeone DM, "ATDC Mediates a TP63-regulated Basal Bladder Cancer Invasive Program," *Oncogene* 2019 May;38(18):3340-3354.

<u>Service</u>: Dr. Palmbos is a board-certified medical oncologist whose primary focus is genitourinary malignancies (prostate and bladder cancers). The care he provides in the clinic includes the management of hormone therapy, chemotherapy, and immunotherapy, and he collaborates closely with urologic surgeons, radiologists, pathologists, and radiation oncologists. In addition to his clinical work, Dr. Palmbos has served on several institutional committees including the Preliminary Exam Committee for the Cancer Biology Ph.D. Program and he is an elected representative for the Medical School Senate Assembly. He is recognized nationally as an expert on bladder cancer which is evidenced by his service as an ad hoc study section peer reviewer for the NIH, the Department of Defense (DOD) as well as several institutional grant review committees. He has provided ad hoc peer-review service for 25 journals including *Cancer Research*, *European Urology*, and *Journal of Clinical Investigation*. He has served on one dissertation committee.

### External Reviewers:

Reviewer A: "Dr. Palmbos has been able to obtain independent funding in multiple ongoing and completed grants...He also is a co-investigator on multiple grants, once again underscoring his ability to collaborate well with others and be engaged in team science. He has submitted a 5-year NCI grant on TRIM29 which has been well scored and is expected to be funded."

<u>Reviewer B</u>: "Dr. Palmbos has led several classes at his institution. He has also written review articles with Dr. Maha Hussain that would constitute teaching of colleagues. His teaching extends to many stages of learners – from undergraduate to clinical fellow."

<u>Reviewer C</u>: "I would consider Dr. Palmbos's [sic] 2018 oncogene paper where he is a co-corresponding 1<sup>st</sup> author as his best piece of work because it expands our understanding of how isoform specific p63 regulates cell invasion via ATDC...His work on the p63 isoform-ATDC axis is very interesting and will likely nucleate work that he can build on."

Reviewer D: "He has had multiple roles both outside of the University of Michigan as well as internally. For example, he has served in numerous capacities on NIH study sections as well as for the Bladder Cancer Advocacy Network (BCAN) Innovation Award study section and the Department of Defense. Internally...he has served on the Prelimary Exam committee for the Cancer Biology Graduate Program. I myself have served on such a committee and I know this is a significant commitment of time and resources. Finally, Dr. Palmbos has served as an ad hoc journal reviewer for numerous high impact journals over the past 5 to 7 years. His consistent commitment to this generally unrecognized service is a testament to his willingness to do what is best for the field regardless of public recognition."

Reviewer E: "Dr. Palmbos is well-funded and has an excellent record of obtaining funding. He has grants from several sources including NIH (2 grants where he serves as a co-PI), as well as from Damon Runyon. He previously was a recipient of a K08 from NIH which is prestigious, as well awards from a number of other agencies...He has mentored 4 clinical fellows, 2 grad students, one post doc and 5 undergraduates. He has also taught courses and supervised attending physicians, which is a huge amount of work."

<u>Summary of Recommendation</u>: Dr. Palmbos is an exceptionally skilled researcher dedicated to translating his findings in the laboratory to the clinic. His ability to obtain independent funding for his research in addition to his dedication to teaching and his outstanding clinical work is evidence of his ability to continue his current trajectory toward international expertise in his field. I am pleased to recommend Phillip L. Palmbos, M.D., Ph.D. for promotion to associate professor of internal medicine, with tenure, Department of Internal Medicine, Medical School.

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

Executive Vice President for Medical Affairs

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Dean, Medical School