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

<u>Adina Turcu, M.D., M.S.</u>, 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	<u>: Degrees:</u>	
M.S.	2019	University of Michigan
M.D.	2003	Carol Davila University of Medicine and Pharmacology, Bucharest Romania
B.S.	1997	Gheorghe Sincai National College, Baja Mare, Maramures, Romania
Profession	nal Record:	
2016-Present		Assistant Professor of Internal Medicine, University of Michigan
2014-2016		Clinical Lecturer of Internal Medicine, University of Michigan

Summary of Evaluation:

<u>Teaching</u>: Dr. Turcu's teaching has included informal mentoring to trainees, including three undergraduate students, four post-graduate fellows, and three medical students. Most recently, she has taught University of Michigan fellows rotating throughout the Division of Metabolism, Endocrinology and Diabetes clinics. Additionally, she is didactically teaching first year medical students the Endocrine Course series in Adrenal Physiology and Steroid Pharmacology and Adrenal Disorders. Dr. Turcu has lectured annually on primary aldosteronism and adrenal incidentalomas, and is a member of the Internal Medicine Board Review series on adrenal disorders and pituitary disorders.

<u>Research</u>: Dr. Turcu is an exceptional scientist whose primary scholarly research focus is on adrenal gland physiology and pathology, congenital adrenal hyperplasia (CAH), primary aldosteronism, Cushing syndrome, pheochromocytoma, paragnagliomas, endocrine hypertension and sex hormones and aging. Dr. Turcu's research focuses on understanding the mechanisms of hyperaldosteronism based on data from venous sampling, and steroid hormone profiling in adrenal disorders, highlighting the role of 11-oxygented steroids. Dr. Turcu has been successful at obtaining external grant funding from multiple sources including a K08 Career Development Award to evaluate a panel of steroid biomarkers to improve diagnostic accuracy for congenital adrenal hyperplasia, an important condition causing excess androgen production and adrenal insufficiency. She has received a three-year Clinical Scientist Development Award through the Doris Duke Charitable Foundation, with an R01 grant submitted to the NIH. She has published 55 peer-reviewed articles in high impact journals, including *Nature Reviews Endocrinology*, *Journal of Clinical Endocrinology* and *Metabolism and Hypertension*. Dr. Turcu has received national recognition for her research, including the American Society for Clinical Investigation, 2020 Young Physicians-Scientist Award, and the Doris Duke Charitable Foundation Clinical

Scientist Development Award. She has been invited to give several national and international presentations in Brazil, Japan and Germany.

Recent and Significant Publications:

Davio A, Woolcock H, Nanba AT, Rege J, O'Day P, Ren J, Zhao L, Ebina H, Auchus R, Rainey WE, Turcu AF: Sex Differences in 11-Oxygenated Androgen Patterns across Adulthood, *J Clin Endocrinol Metab*, 105(8): 2921-2929, 2020.

Turcu AF, Rege J, Auchus RA, and Rainey WE: 11-Oxygenated Androgens in Health and Disease, *Nat Rev Endocrinol*. 16(5): 284-296, 2020.

Turcu AF, Wannachalee T, Tsodikov A, Nanba AT, Ren J, Shields JJ, O'Day PJ, Giacherio G, Rainey WE, Auchus RA: Comprehensive Analysis of Steroid Biomarkers for Guiding Primary Aldosteronism Subtyping, *Hypertension*, 75(1): HYPERTENSIONAHA11913866, 2019.

Wannachalee T, Zhao L, Nanba K, Nanba AT, Shields JJ, Rainey WE, Auchus RJ, Turcu AF, Three Discrete Patterns of Primary Aldosteronism Lateralization in Response to Cosyntropin during Adrenal Vein Sampling, *J Clin Endocrinol Metab*. Dec 1;104(12):5867-5876, 2019.

Turcu AF, Mallappa A, Elman M, Avila NA, Marko J, Rao H, Tsodikov A, Auchus RJ, Merke DP: 11-Oxygenated Androgens are Biomarkers of Adrenal Volume and Testicular Adrenal Rest Tumors in 21-Hydroxylase Deficiency, *J Clin Endocrinol Metab*, Aug 1;102(8):2701-2710, 2017.

<u>Service:</u> Dr. Turcu is an active member of the Endocrine Society Research Affairs Core Committee and beginning in 2020, she became the chair for the International Aldosterone Conference Organizing Committee. She has additionally contributed to her field with service as an ad hoc reviewer for several journals, including *Endocrine Practice*, *Molecular and Cellular Endocrinology*, the *Journal of Clinical Endocrinology and Metabolism*, and the *Journal of Molecular Endocrinology*. Dr. Turcu is an ad hoc reviewer for the Molecular and Cellular Endocrinology study section for the National Institutes of Health. She was previously an editor for the *Endocrinology and Metabolism Clinics of North America*, and <u>Biochemical and Imaging</u> <u>Diagnosis in Endocrinology</u>. Dr. Turcu's clinical interests include, adrenal aldosteronism, Cushing syndrome, congenital adrenal hyperplasia, pheochromocytomas/paragangliomas and neuroendocrine tumors.

External Reviewers:

<u>Reviewer A:</u> "Dr. Turcu's [sic] service contributions to endocrinology are excellent. Dr. Turcu has served on national and international study sections and in several research leadership roles in the Endocrine Society. Dr. Turcu has delivered many invited lectures in national and international meetings and is considered an engaging and effective speaker."

<u>Reviewer B:</u> "She is a great presenter and provides both clinical and scientific topics in a very instructive and educational manner. I know Adina as a bright, diligent and creative researcher, who is always ready to go the extra mile."

<u>Reviewer C:</u> "She has an accelerating trajectory of publication. [sic]...She is gaining national and international recognition in her specific focus areas. Taken together, I expect that she will continue to thrive academically and become a real leader in adrenal diseases."

<u>Reviewer D:</u> "I have found Dr. Turcus' work to be superb regarding quality, quantity, focus and impact...She has been quite productive in her short career, earning 43 peer-reviewed publications mainly in the area of adrenal disease...At this early stage in her career, she is already becoming a leader in the field of adrenal research."

<u>Reviewer E:</u> "...[Dr. Turcus] is amassing a strong research portfolio using mass spectrometry to generate profiles of multiple steroid markers to improve diagnosis of subtypes of primary hyperaldosteronism...She is developing a cutting edge approach with steroid biomarkers that could decrease the need for invasive adrenal vein sampling...her research is developing methodologies, that can have clinical implications."

Summary of Recommendation:

Dr. Turcu is an instrumental contributor to adrenal gland research and has developed a strong national and international reputation in addition to a demonstrated excellence in mentorship and service. I am pleased to recommend Adina Turcu, M.D., M.S. for promotion to associate professor, with tenure, Department of Internal Medicine, Medical School.

Manuel A. Kinge

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

May 2021