

PROMOTION RECOMMENDATION

The University of Michigan

Division of Kinesiology

Jeffrey F. Horowitz, assistant professor of kinesiology, Division of Kinesiology, is recommended for promotion to associate professor of kinesiology, with tenure, Division of Kinesiology.

Academic Degrees:

B.S.E.	1989	University of Iowa, Biomedical Engineering
M.A.	1992	University of Texas at Austin, Exercise Physiology
Ph.D.	1996	University of Texas at Austin, Exercise Physiology
Post-Doc	1996-1999	Washington University School of Medicine, St. Louis, MO

Professional Record:

1999-2000	Research Instructor in Medicine, Division of Gastroenterology, Washington University School of Medicine, St. Louis, MO
2000 to present	Assistant Professor, Movement Science, Division of Kinesiology, University of Michigan

Summary of Evaluation:

Teaching—Dr. Horowitz has made significant contributions to teaching at Michigan by providing core instruction in the area of exercise physiology at both the undergraduate and graduate levels. Over the past 5 years he has taught 4 courses, in addition to working with many students on independent study credits. He developed a new graduate course that draws students from several other schools as well as our own doctoral students. Students view him as well-prepared, respectful, and indicate that they learn a lot in his courses. Dr. Horowitz has also mentored many students in his laboratory, including undergraduates involved in UROP, masters, doctoral and postdoctoral students.

Research—Dr. Horowitz's research focuses on the impact of alterations in energy balance, endocrine responses, and the regulation of substrate metabolism on important health issues, such as obesity, weight regulation, type 2 diabetes, and cardiovascular disease. Dr. Horowitz built on the excellent training he received in his doctoral and postdoctoral programs to establish a strong, focused, and interdisciplinary research laboratory at Michigan. He has published 29 papers in peer-reviewed journals, 18 since coming to Michigan with 6 emanating from new work in his laboratory. He has built an impressive record of external support for his research including his recently funded NIH R01 grant. The quality and significance of his contributions are further illustrated by his frequent invitations to speak at research meetings, including four international presentations.

Recent and Significant Publications:

Horowitz JF, SW Coppack, D Paramore, P Cryer, G Zhao, and S Klein. Effect of short-term fasting on lipid kinetics in lean and obese women. *Am. J. Physiol.* 276(2 Pt 1): E278-E284, 1999.

Horowitz JF and S Klein. Whole-body and abdominal subcutaneous adipose tissue lipolytic

- sensitivity to epinephrine is suppressed in women with upper-body obesity. *Am. J. Physiol.* 278:E1144-E1152, 2000.
- Horowitz JF and S Klein. Oxidation of non-plasma fatty acids during exercise is increased in women with abdominal obesity. *J. Appl. Physiol.* 89:2276-2282, 2000.
- Landt M, JF Horowitz, SW Coppack, and S Klein. Effect of short-term fasting on free and bound leptin concentrations in lean and obese women. *J. Clin. Endocrinol. Metab.* 86(9):3768-3771, 2001.
- Mittendorfer B, JF Horowitz, and S Klein. Effect of gender on lipid kinetics during moderate intensity endurance exercise in untrained subjects. *Am. J. Physiol.* 283:E58-E65, 2002.
- Fox AK, AE Kaufman, and JF Horowitz. Adding fat calories to meals after exercise does not alter insulin sensitivity. *J. Appl. Physiol.* 97:11-16, 2004.
- Horowitz JF, AE Kaufman, AK Fox, and MP Harber. Energy deficit without reducing dietary carbohydrate alters resting carbohydrate oxidation and fatty acid availability. *J. Appl. Physiol.* 98(5):1612-1618, 2005.
- Harber, MP, S Schenk, AL Barkan and JF Horowitz. Effects of dietary carbohydrate restriction with high protein intake on protein metabolism and the somatotrophic axis. *J. Clin. Endocrinol. Metab.* 90:5175-5181, 2005.

Service—Dr. Horowitz made significant service contributions to the Division through his participation as a member of the Kinesiology Building Committee and as Director of our Center for Exercise Research (CXR). He also serves as a member of the Michigan Metabolomics and Obesity Center Advisory Board and as a consultant for the General Clinical Research Center (GCRC) at Michigan. He serves his profession as an associate editor for the *Canadian Journal of Applied Physiology*, and as a manuscript reviewer for several well-respected research journals.

Comments from External Reviewers:

Reviewer A

"...an excellent publication record in the leading physiology and exercise physiology journals." "In particular, his recent work has significantly enhanced the understanding of carbohydrate-lipid interactions during exercise and fasting and is of considerable clinical relevance given the increasing burden of metabolic diseases such as obesity and type 2 diabetes." "The new work on skeletal muscle fatty acid transporters is especially novel."

Reviewer B

"Jeff has established himself as an expert in processes that control lipid oxidation; as evidence he has published in the best journals in the applied physiology realm (*American Journal of Physiology* and *Journal of Applied Physiology*), contributed to book chapters, been asked to speak on this topic at conferences/universities, and has received funding from the National Institutes of Health and the American Diabetes Association to support his research."

Reviewer C

"Dr. Horowitz has published important and novel work in the field of metabolism." "...is in a great position to achieve national and international leadership in his field...an independent and creative thinker and is well on his way to having a very successful career in academia."

Reviewer D

"Most impressively, he has developed the skills and expertise that enable him to conduct complex clinical intervention trials to investigate integrative physiological responses to diet and exercise manipulations, while also conducting basic research on cellular mechanisms underlying the responses. It is my opinion that Dr. Horowitz has developed an outstanding translational research program that is focused on issues that are timely and important."

Reviewer E

"We have followed his research, having reviewed his papers in my laboratory's Journal Club. He is making significant contributions in this area that has a high impact on our understanding of how insulin resistance develops."

Reviewer F

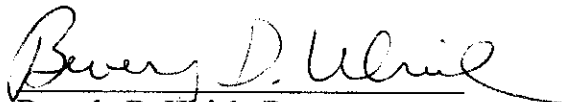
"Dr. Horowitz has a vibrant research program as judged by his research publications, the funding he attracts, and the good students he attracts and educates. His record in all of these areas is very good for someone so junior in his career."

Reviewer G

"Jeff has also published several well-respected review articles on these same topics. They are excellent reviews and I use them regularly in my graduate classes." "Indeed, I would consider Jeff [of his generation] leader in this particular area of research...he has made substantial contributions to his area of research since being hired at the University of Michigan."

Summary of Recommendation.

Dr. Horowitz has been an outstanding faculty member. During his years as an assistant professor at Michigan he attracted an excellent team of students to work with him, including many undergraduates as well as masters, doctoral, and postdoctoral level trainees. He established strong collaborations with scholars across campus and produced important new scientific knowledge by his well-designed and completed studies published in high quality journals and presented at national and international conferences. He built a strong record of external funding for his work and that of his students. Dr. Horowitz made significant contributions to teaching by developing new courses and teaching core courses regularly in our undergraduate and graduate programs. In service to the Division, the University, and his profession Dr. Horowitz exceeded expectations for an assistant professor. It is with the support of all levels of review within the Division of Kinesiology that I recommend Jeffrey F. Horowitz for promotion to associate professor of kinesiology, with tenure.



Beverly D. Ulrich, Dean
Division of Kinesiology

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