Approved by the Regents
May 19, 2016

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF ORTHOPAEDIC SURGERY
DEPARTMENT OF MOLECULAR AND INTEGRATIVE PHYSIOLOGY

Christopher L. Mendias, Ph.D., assistant professor of orthopaedic surgery, Department of Orthopaedic Surgery, and assistant professor of molecular and integrative physiology, Department of Molecular and Integrative Physiology, Medical School, is recommended for promotion to associate professor of orthopaedic surgery, with tenure, Department of Orthopaedic Surgery, and associate professor of molecular and integrative physiology, without tenure, Department of Molecular and Integrative Physiology, Medical School.

Academic Degrees:

Ph.D.	2007	University of Michigan
M.S.	2003	University of Arizona
B.S.	2001	University of Arizona

Professional Record:

2012-present	Assistant Professor of Orthopaedic Surgery, University of Michigan
2012-present	Assistant Professor of Molecular and Integrative Physiology, University of Michigan
2009-2011	Research Assistant Professor, Department of Orthopaedic Surgery, University of Michigan
2009-2011	Research Assistant Professor, Department of Kinesiology, University of Michigan

Summary of Evaluation:

Teaching: As an assistant professor, Dr. Mendias is heavily involved in teaching. His teaching activities are primarily focused on mentoring students in the lab, teaching didactic lectures and leading discussion sections on an ad hoc basis for the orthopaedic surgery residents, medical students and graduate students. Dr. Mendias has created an interdisciplinary lab environment where both clinical and basic science trainees interact and learn from each other while working on research projects in a collaborative fashion. Several of the orthopaedic surgery residents he mentored have won institutional, state and national awards for their thesis projects. Both of the Ph.D. students under his mentorship have secured competitive NIH HRSA fellowships, national and international awards, numerous podium presentations at top meetings in their field as well as impressive publications records. Many of the undergraduate students that have had the opportunity to be mentored by Dr. Mendias have won local and national awards for their work and many have gone on to M.D. or Ph.D. degree programs. Dr. Mendias hopes to continue to develop his skills as an educator and mentor. He is interested in being involved in teaching and curriculum development with the planned undergraduate major in Human Physiology that will be

jointly administered through Molecular and Integrative Physiology and the College of Literature, Science, and the Arts.

Research: The majority of Dr. Mendias' effort is directed toward his translational research program in musculoskeletal biology. As Dr. Mendias developed his independent research program, he completed training through the Michigan Institute for Clinical and Health Research as well as national courses in clinical research. His current research program has strong basic and clinical components that are tightly integrated. Dr. Mendias has been able to secure and maintain collaborations with several clinicians and basic scientists both at the University of Michigan and internationally. He has been able to identify important clinical questions and design appropriate and informative wet lab studies to further refine the evidence-based practice of sports medicine. Dr. Mendias is currently serving as the principal investigator on an R01, studying the regulation of adult tendon growth and regeneration by scleraxis. Last year, he was awarded the Neer Award for Basic Science Research from the American Shoulder and Elbow Surgeons as well as the Shih-Chun Wang Young Investigator Award from the American Physiological Society. Since his appointment as assistant professor in 2012, Dr. Mendias has published 28 peer-reviewed articles, 24 as first or senior author. He currently serves as an associate editor for *BMC Musculoskeletal Disorders* and is an editorial board member of the *Journal of Orthopaedic Research.*

Recent and Significant Publications:

Gumucio JP, Davis ME, Bradley JR, Stafford PL, Schiffman CJ, Lynch EB, Claflin DR, Bedi A, Mendias CL: Rotator cuff tear reduces muscle fiber specific force production and induces macrophage accumulation and autophagy. *J Orthop Res* 30:1963-1970, 2012.

Mendias CL, Lynch EB, Davis ME, Sibilsky Enselman ER, Harning JA, Dewolf PD, Makki TA, Bedi A: Changes in circulating biomarkers of muscle atrophy, inflammation, and cartilage turnover in patients undergoing anterior cruciate ligament reconstruction and rehabilitation. *Am J Sports Med* 41:1819-1826, 2013.

Gumucio JP, Phan AC, Ruehlmann DG, Noah AC, Mendias CL: Synergist ablation induces rapid tendon growth through the synthesis of a neotendon matrix. *J Appl Physiol* 117:1287-1291, 2014.

Mendias CL, Lynch EB, Gumucio JP, Flood MD, Rittman DS, Van Pelt DW, Roche SM, Davis CS: Changes in skeletal muscle and tendon structure and function following genetic inactivation of myostatin in rats. *J Physiol* 593:2037-2052, 2015.

Schwartz AJ, Sarver DC, Sugg KB, Dzierzawski JT, Gumucio JP, Mendias CL: p38 MAPK signaling in postnatal tendon growth and remodeling. *PLoS One* Mar 13;10(3):e-120044, 2015.

Service: While Dr. Mendias no long actively practices as an athletic trainer, he maintains his professional credentials in this area and enjoys interacting with patients in his lab's clinical studies. He is very active in service at the institutional level. In the past few years, he served as a member of the University of Michigan Orthopaedic Surgery Website Redesign Committee.

Last year, he was the co-director of the Master's Degree Faculty Search Committee for the Department of Molecular and Integrative Physiology. Dr. Mendias also meets frequently with several clinicians in the Department of Orthopaedic Surgery who are starting or expanding their research programs and helps guide them and offers feedback on their proposals. On the national level, he currently serves as a liaison between the National Athletic Trainers Association and the American Academy of Orthopaedic Surgeons as the two organizations work to develop policy statements, legislative strategies and clinical position statements. Dr. Mendias serves on the nomination committee for the Orthopaedic Research Society (ORS) and helps with the ORS annual meeting as a session moderator and abstract reviewer. He is also an active member of the American Physiological Society (APS) and serves on the Translational Physiology Committee and Porter Development and Minority Affairs Committee.

External Reviewers:

Reviewer A: "I can safely say that there are only a handful of individuals such as Dr. Mendias who have been successful in their transition from training in the clinical world to a career that is primarily scholarship based. For this reason alone, he stands out amongst his peers. Dr. Mendias has clearly achieved national recognition as a scholar in his chosen field."

Reviewer B: "Dr. Mendias is a very productive scientist and a rising star in the musculoskeletal research community. He has maintained an active and diverse extramural funding portfolio. His publication record is strong and he is a collaborative colleague based on his contributions in both manuscripts and grants."

Reviewer C: "...Chris has made many important contributions to his research area and is undoubtedly now seen as an important international researcher in skeletal muscle growth and atrophy and in tendon and ligament mechanobiology. Chris' research is acknowledged to be innovative and outstanding in its thoroughness."

Reviewer D: "Chris has already established a solid reputation in our field, and his trajectory suggests that he will continue to be a strong contributor."

Reviewer E: "His interdisciplinary combination of skills and interests, the creativity and high productivity and the excellent integration with various research groups and fields are evidenced by his considerable contributions to tendon and muscle research to date and ensure his continued and substantial contributions in the future....I am consistently impressed by his breadth of knowledge, the ability to integrate diverse fields and his very original thinking."

Reviewer F: "...Dr. Mendias is an internationally recognized scientist who has made high impact contributions to our understanding of tendon and muscle biology. He is also very active in service and teaching in the orthopaedic and physiology communities. These contributions are worthy of tenure and promotion at any highly regarded Orthopaedic Surgery department in the country."

Summary of Recommendation:

Dr. Mendias is recognized as a national expert and thought leader in his field. He participates in extensive teaching and service activities and has excellent productivity, funding, and educational contributions. I am pleased to recommend Christopher L. Mendias, Ph.D. for promotion to associate professor of orthopaedic surgery, with tenure, Department of Orthopaedic Surgery, and associate professor of molecular and integrative physiology, without tenure, Department of Molecular and Integrative Physiology, Medical School.

Marschall Runge

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

May 2016