

COMMITTEE ON MOLECULAR METABOLISM AND NUTRITION

Chair

- Matthew Brady

Professors

- Maria-Luisa Alegre, Medicine
- Catherine Reardon Alulis, Pathology
- Graeme Bell, Medicine
- Antonio Bianco, Medicine
- Ran Blekhman, Medicine
- Eugene Chang, Medicine
- Arlene Beth Chapman, Medicine
- Jing Chen, Medicine
- Ronald Cohen, Medicine
- Laurie Comstock, Microbiology
- Yun Fang, Medicine
- Kay Macleod, Ben May Department for Cancer Research
- James Michael Millis, Surgery
- Raghu G. Mirmira, Medicine
- Gokhan Mutlu, Medicine
- Cathryn Nagler, Pathology
- Scott Andre Oakes, Pathology
- Louis Philipson, Medicine
- Vivek Prachand, Surgery
- Jeffrey Rathmell, Ben May Department of Cancer Research
- Nancy B. Schwartz, Pediatrics
- Esra Fatma Tasali, Medicine
- Sarah Tersey, Medicine
- Amy Weinmann, Medicine
- Yingming Zhao, Ben May Department for Cancer Research
- Xiaoxi Zhuang, Department of Neurobiology

Associate Professors

- Francis Alenghat, Medicine
- Lev Becker, Ben May Department of Cancer Research
- Bruce Bissonnette, Medicine
- Matthew Brady, Medicine
- Alexandra Dumitrescu, Medicine
- Yun Fang, Medicine
- Siri Atma W. Greeley, Pediatrics
- Erin Hanlon, Medicine
- Summer Hanson, Surgery
- Yanchun Li, Medicine
- Jeremy Marks, Pediatrics
- Silvana Pannain, Medicine
- Esra Tasali, Medicine
- Rongxue Wu, Medicine

Assistant Professors

- Ryan Anderson, Medicine
- Lev Becker, Ben May Department for Cancer Research

- Alice Gabrielle Cheng, Medicine
- Martina Damo, Medicine
- Daria Esterhazy, Pathology
- Brandon Faubert, Medicine
- Elias Gerrick, Microbiology
- Andrew Seung-Hyun Koh, Pathology
- Sam Light, Microbiology
- Mark Mimee, Microbiology
- Alexander Muir, Ben May Department for Cancer Research
- Janane Rahbani, Medicine
- Simon Schwoerer, Medicine
- Lin Shen, Medicine
- Ada Weinstock, Medicine

Research (Professor)

- Catherine Reardon Alulis, Pathology
- Sarah Tersey, Medicine

The Committee on Molecular Metabolism and Nutrition is a dynamic and interactive research unit of the University of Chicago offering interdisciplinary doctoral training in the molecular basis of biological processes as they relate to nutrition and human disease. The graduate program in molecular metabolism and nutrition offers a program of study leading to the Doctor of Philosophy in Molecular Metabolism and Nutrition. Faculty expertise includes the areas of insulin secretion, diabetes genetics, nutritional regulation of epithelial cell biology, intestinal absorption, adaptation, and malabsorption, water/nutrient/electrolyte transport, nutraceuticals, atherogenesis, abnormalities in lipid and lipoprotein metabolism, vitamin D research, insulin metabolic signaling, transcription factors and adipogenesis, impact of nutrition on reproductive biology, glucocorticoid action and sleep research. A mixture of nationally recognized senior faculty and dynamic junior faculty provide a stimulating and supportive environment designed to guide graduate students through course work and research training. Major resources include transgenic mouse facilities, flow cytometry, microscope imaging suites, microarray and gene chip facilities, computational labs and facilities for human research. The committee works closely with the government sponsored Diabetes Research and Training Center, Digestive Disease Research Core Center, Training Program in Digestive Diseases and Nutrition, and the Clinical Research Center to offer a broad array of choices for research topics.

The Committee on Molecular Metabolism and Nutrition is a member of the Biomedical Sciences Cluster, which also includes graduate programs from the Committee on Cancer Biology, the Committee on Immunology, and the Committee on Microbiology. The four academic units share several common courses, a seminar series, and additional common events for students and faculty within the cluster. The goal of the cluster system is to encourage interdisciplinary interactions among both trainees and faculty, and to allow students flexibility in designing their particular course of study.

ADMISSION

Students interested in obtaining the Ph.D. in Molecular Metabolism and Nutrition should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Molecular Metabolism and Nutrition as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 9 course credits consisting of basic science, metabolism and elective courses.
- A preliminary exam in the form of a mock NIH-style grant proposal.
- A dissertation based on original research.
- A final thesis examination.

COMMITTEE ON MOLECULAR METABOLISM AND NUTRITION COURSES

MOMN 30901	Molecular Basis of Metabolic Disease	100
MOMN 30910	Grant Writing	100
MOMN 31000	BMSC All Stars	50
MOMN 31100	Ethics in Scientific Research	50
MOMN 34310	Cellular Engineering	100
MOMN 36500	Molecular Nutrition I	100
MOMN 36600	Molecular Nutrition II	100

MOMN 39900	Readings: Metabolism	100
MOMN 40100	Research: Metabolism	300
MOMN 40400	New Insights into Metabolic Research	50

