Molecules to Medicine

Molecules to Medicine (M2M) is a requirement for MS1 and MS2 students. Its objectives are to nurture scientific reasoning skills through critical analysis of journal articles and the underlying scientific method, emphasizing rigor and reproducibility; to inspire students by reviewing landmark breakthroughs in biomedical investigation; and to improve presentation ability. Scientific topics are selected by the rising MS2s each year.

Course Director: Tonya Webb, PhD

M2M 2026-2027 Syllabus

All sessions are required for all MS1 students; sessions optional for MS2 are noted with *

Course Introduction/Grant Writing

Date	Presentation	Faculty Mentor
08/20/2026	Course Introduction*	**Tonya Webb, PhD**
09/10/2026	Session 1A: Grant Writing 101	**Tonya Webb, PhD**

Topic 1: Antidepressant

Date	Presentation	Faculty Mentor
09/17/2026	Session 2A: Faculty Introduction	**Jose M. Lemme-Dumit, PhD**
10/01/2026	Session 2B: Methods Paper	
10/15/2026	Session 2C: Research Paper	

Topic 2: From RNA to Revolution: How Transcriptomics Changed Biomedical Science

Date	Presentation	Faculty Mentor
11/12/2026	Session 3A: Faculty Introduction	**Elana Fertig, PhD**
12/03/2026	Session 3B: Methods Paper	
12/10/2026	Session 3C: Research Paper	

Additional Course Sessions

Date	Presentation	Faculty Mentor
12/17/2026	Mentor Selection and Career Development Choices*	**Mary-Claire Roghmann, MD, MS**
01/07/2027	Session 1B: Grant Discussion	**Tonya Webb, PhD**

Topic 3: Neuroimmune Interactions

Date	Presentation	Faculty Mentor
01/14/2027	Session 4A: Faculty Introduction	**Nevil Singh, PhD**
01/28/2027	Session 4B: Methods Paper	
02/04/2027	Session 4C: Research Paper	

Additional Course Sessions

Date	Presentation	Faculty Mentor
02/25/2027	Session 1C: Grant Review Meeting	**Tonya Webb, PhD**
03/25/2027	Rigor and Reproducibility in Research*****	**Kaylin Adipietro, PhD**
04/08/2027	Center for Innovative Biomedical Resources Introduction and Tour*	**Rina Lapidus, PhD**