A new Graduate Training Program of Study for the PhD in Biomedical Sciences

UMass Chan MEDICAL SCHOOL

Morningside GSBS Enrollment Pathways



RNA Therapeutics and Biology Program

Falls under the Basic Biomedical Sciences (BBS) Umbrella Pathway

Common admission and core requirements with other BBS programs

Students formally affiliate with specific BBS programs at the end of Year 1

Curriculum and co-curriculum tailored to objectives

Recognized in governance



Basic Biomedical Sciences Umbrella Programs

Currently Seven Programs, mostly thematic

Common requirements & timeline, Program electives

Spring Yr 1 BBS Students affiliate with one program

UMBRELLA STUDENT PROGRAM DISTRIBUTION





Biochemistry and Molecular

New BBS Umbrella Program: RNA Biology and Therapeutics (RTB)

RNA Biology is fundamental to life sciences; RNA-based Therapeutics is a fast-growing market

An RNA Biology and Therapeutics Training Program is nearly unique in the US

UMass Chan is a recognized leader in RNA Biology and Therapeutics research

The UMass Chan RTI is an outstanding, committed, in-demand biomedical training ecosystem

- Field-leading faculty
- Highest GSBS student census
- Faculty/staff roles support mentoring, education, career development

Substantial program infrastructure already in existence



Morningside Graduate School of Biomedical Sciences

<u>Leadership</u>

- David Grunwald
- Angela MessmerBlust
- Phil Zamore

<u>Membership</u>

- RTI Faculty
- Others by Approval of RTB Executive Committee

Academic and Mentoring Plans

RTB Academic Plan*

	Fall	Spring	Summer
Year 1	BBS614 SIBR Research Rotation	BBS718* RNA Biology I Other Elective Rotations	Thesis Research
Year 2	BBS ### RNA Biology II BBS602 QE Prep	Q Exam Thesis Research	Thesis Research
Year 3	RCR, Seminars, Workshops Thesis Research	Thesis Research, Seminars	Thesis Research
Year 4-6	Seminars, Workshops, Research, and Completion		

Key Features of RTB Mentoring Oversight Plan

Active role in conflict resolution and mitigation of mentor mismatch

Active monitoring TRAC reporting and intervention when progress is unsatisfactory

Early intervention to prevent extended time to degree

Department culture of faculty mentoring includes "mentoring the mentors"



Educational Effectiveness

Student Success Beyond GSBS Requirements

Self-monitored Program Metrics

Students prepare and discuss IDP with TRAC and Advisor annually*

Students present research progress at RTI Chalk Talk and RNA Therapeutics Symposium Annually

Students present and discuss career planning progress with Career and Professional Development staff

Students attend an international conference and present their work

Students present a manuscript draft before Year Five

Program Recruitment Targets 🚒

Program leadership participation in recruitment and graduate education-oriented conferences

Advancement to Candidacy rate

Mean, median, and right-tail Time to Degree monitoring



Co-curricular Competency-based Educational Requirements

All eligible students submit an individual fellowship application (NRSA F, GRFP, Foundations)

Students will engage with existing skills-based and thematic Clubs

Professional engagement with experts in RNA Biology

Presentations at Annual RNA Therapeutics Symposium

Community Engagement and Advocacy

Morningside Graduate School of Biomedical Sciences Process to Date

Proposal presented to GSBS Assembly May 2024

New Course **RNA Biology II** provisionally approved by GSBS Curriculum Committee October 2024

Program Approved by GSBS Assembly December 2024

Pending final approval, Program can accept new students in June of 2025

