Master of Science in Reproductive Science and Medicine

Northwestern University

Online Info Session
Beth Sefton, PhD
Director of Graduate Studies, MS-RSM
November 29, 2018
Outline

1. Center for Reproductive Science
2. MS-RSM Program Overview
3. Questions
4. Application and Admissions
5. Questions
CRS is a historical Northwestern Center

At the forefront of reproductive research, medicine, and technology

- To enhance and enable research in reproductive science and medicine across disciplines
- To apply state-of-the-art research and technologies to human reproductive health
- To train the next generation of research, clinical, and thought leaders in our field
Center for Reproductive Science Community

- Anthropology
- Biomedical Engineering
- Cell and Molecular Biology
- Chemistry
- Endocrinology
- Molecular Biosciences
- Materials Science and Engineering
- Medical Education
- Neurobiology
- Obstetrics and Gynecology
- Pathology
- Physiology
- Preventative Medicine
- Psychiatry and Behavioral Sciences
- Psychology
- Religious Studies
- Surgery
- Urology
CRS Programming

- Reproductive Research Updates
- Translational Lectures in Reproductive Science
- CRS Career Catalysts
- CRS Reproductive Science and Medicine Summit
- Oncofertility Consortium Conference
  - Organized by the NU Oncofertility Consortium
CRS Collaborative Suite
645 North Michigan Ave, Suite 630

Keycard access
- Studying
- Group work and meetings
- Practice presentations
- Meals

- Windows Desktop
- Printer
- Variety of seating
- Video and conference call equipment
- Small conference room
- Shared kitchen space with Center for Genetic Medicine and Genetic Counseling MS program
Center for Reproductive Science

Stay Connected!

At the forefront of reproductive research, medicine and technology

Spread the Word!
Facebook
ConstantContact
LinkedIn
Emails

PlanIt Purple
### MS-RSM

- **Non-Thesis, Thesis Tracks**
- **Coursework**
- **Research**
- **Scientific Skill Building**
- **Electives**
- **Graduation**

<table>
<thead>
<tr>
<th></th>
<th>Q1 (Fall)</th>
<th>Q2 (Winter)</th>
<th>Q3 (Spring)</th>
<th>Q4 (Summer)</th>
<th>Q5 (Fall)</th>
<th>Q6 (Winter)</th>
<th>Q7 (Spring)</th>
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<tbody>
<tr>
<td><strong>Thesis Track</strong></td>
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<td>RCR</td>
<td>Research</td>
<td>Research</td>
<td>Elective (optional)</td>
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<td>Repro. Tech. Lab</td>
<td>Elective (optional)</td>
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<td>Select Mentor</td>
<td>Select Committee</td>
<td>Proposal Defense</td>
<td>Progress Report</td>
<td>Thesis Completed</td>
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<td><strong>Non-Thesis Track</strong></td>
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<tr>
<td>RCR</td>
<td>Repro. Research I (1 unit)</td>
<td>Repro. Research II (1 unit)</td>
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<td>Final Exam</td>
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# Thesis and Non-Thesis Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Unit</th>
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<tr>
<td><strong>Core Reproductive Science Courses</strong></td>
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<tr>
<td>REPR_SCI 405: Female Reproductive Physiology and Endocrinology</td>
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<tr>
<td>REPR_SCI 407: Male Reproductive Physiology and Endocrinology</td>
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<tr>
<td><strong>Advanced Topic Reproductive Science Courses</strong></td>
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<tr>
<td>REPR_SCI 406: Human Reproductive Development/Emerging Research in Reproductive Science</td>
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<tr>
<td>REPR_SCI 420: Human Reproductive Health and Disease</td>
<td>1</td>
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<tr>
<td><strong>Responsible Conduct of Research</strong></td>
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<tr>
<td>REPR_SCI 425: Responsible Conduct of Research in Reproductive Science</td>
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<tr>
<td><strong>Professional Development</strong></td>
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<tr>
<td>REPR_SCI 455: Research Proposals</td>
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<tr>
<td>REPR_SCI 497: Assessment and Career Development</td>
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Scientific Skills Workshops

Thursdays, 11:00am-12:00pm in the CRS Collaborative Suite

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<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tr>
<td>Understanding scientific manuscripts,</td>
<td>Presentations, literature searches, professional</td>
<td>Posters, professional</td>
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<tr>
<td>graduate student expectations</td>
<td>development</td>
<td>development</td>
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ARTICLE
Received 3 Aug 2016; Accepted 13 Jan 2017; Published 28 Mar 2017

A microfluidic culture model of the human reproductive tract and 28-day menstrual cycle

Each MS-RSM Student Completes a Research Project

• Non-Thesis
  • Group projects in Monahan Lab, Evanston
  • REPR_SCI 442/443

• Thesis
  • Project aligned with thesis mentor, Evanston or Chicago
  • REPR_SCI 440, REPR_SCI 595, REPR_SCI 591
Electives and Auditing Courses

Electives

• Optional

• NEW-REPR_SCI 415: Fertility Management and Reproductive Endocrinology

• Courses through other departments
  • Life Sciences: IGP/DGP; IBIS
  • Anthropology: ANTHRO
  • Medical Humanities and Bioethics: MHB
  • Clinical Investigation: MSCI
  • Gender Studies: GNDR_ST
  • Public Health: PUB_HLTH
  • Epidemiology: EPI_BIO

Auditing

• Taking a course without earning a grade or credit on the transcript
  • Enables exploration and exposure
  • Approved by the course director
Questions?
MS-RSM Application and Admissions
Financial Information

• MS-RSM students are self-funded
  • Tuition
  • Fees
  • Health Insurance
  • Living Expenses

• CRS/MS-RSM cannot provide financial assistance
  • No scholarships, research or teaching assistantships, no stipends

• Seek internal and external funding
  • Alumni scholarships
  • Non-profits, professional societies
Spring 2018 Graduates

Azza Akasha, MD
Mentor: Julie Kim, PhD

Dana Kimelman, MD
Mentor: Mary Ellen Pavone, MD

Allison Grover
Mentor: Francesca Duncan, PhD

Tracy Zhou
Mentor: Francesca Duncan, PhD

Atsuko Kato, MD
Mentor: Francesca Duncan, PhD

Yi Luan
Mentor: So-Youn Kim, PhD

Megan Runge
Mentor: Teresa Woodruff, PhD

Sergio Cardona-Gonzalez, MD
Non-Thesis Mentor: Pamela Monahan, PhD

Sheila Egan
Non-Thesis Mentor: Pamela Monahan, PhD
Fall 2017 Continuing Students

Julia Balough
Mentor: Teresa Woodruff, PhD

Jennie Chen
Mentor: Serdar Bulun, MD

Jordan Machlin
Mentors: Francesca Duncan, PhD; MaryEllen Pavone, MD

Jenny Rowley
Mentor: Francesca Duncan, PhD

Alexandra Fontaine
Mentor: Margrit Urbanek, PhD

Kaitlin Hitt
Mentor: Serdar Bulun, MD

Bin Roh
Mentor: Daniela Matei, MD

Sharron Manuel, MD/PhD
Mentors: Francesca Duncan, PhD; MaryEllen Pavone, MD

Cynthia Salas
Mentor: Chris Payne, PhD

Leah Simon
Mentor: Francesca Duncan, PhD
Fall 2018 New Students

Seth Bariskansky
Non-Thesis

Emily Hayes
Thesis Mentor: Teresa Woodruff, PhD

DreAna Heidenreich
Non-Thesis

Amber Kuhn
Non-Thesis

Sherry Lyu
Non-Thesis

Jamie Mara
Thesis Mentor: Francesca Duncan, PhD

Vanessa Rosa
Thesis Mentor: Kelly Mayo, PhD

Nana Sarpong
Non-Thesis

Kristy Tse
Non-Thesis

Anne Lenzo
Non-Thesis
Typical Applicant

• Biology or Life Sciences degree (undergraduate or post-bac)
• International applicants - MBBS, MD
• Graduated within last 0-4 years
• Avg. GPA: 3.3/4.0
• Research (basic or clinical), leadership, or employment experience
• Ready to transition from student to professional in training

Upon graduating from MS-RSM:
• Medical school
• Residency
• PhD
• Researcher-basic or clinical
• Assisted Reproductive Technologies
• Public and Community Health
Application Requirements and Deadline

1. Previous transcripts
2. Personal statement
3. CV or resume
4. Two letters of recommendation
5. GRE or MCAT scores-OPTIONAL

- Deadline is March 30, 2019
- Online application: http://www.tgs.northwestern.edu/admission/
- $95 application fee
Previous Research Experience

Non-Thesis Track
• Varied research
  • Associated with major coursework (biology, gen. chem, o. chem, physics)
  • Short time frames (weeks - months)
• Not comfortable navigating a research institution, laboratory, and developing a research project in collaboration with faculty mentor
• Working style not yet known

Thesis Track
• +1 year independent research experience
  • Conducted experiments, analyzed data, presented results
• Comfortable exploring faculty, projects, and knows preferred working style
• Comfortable searching literature and performing protocols

Describe research experience in personal statement and resume/CV.
Transcripts

Strong Science Foundation
• 2 semesters Biology with labs
• 2 semesters General Chemistry with labs
• 2 semesters Organic Chemistry with labs
• 2 semesters Physics with labs
• Advanced coursework:
  • Biochemistry, Molecular/Cellular Biology, Genetics, Physiology, Endocrinology, Developmental Biology, Reproduction, Statistics**

Communication and Other Interests
• Writing Composition
• Scientific/Technical Writing
• Public Speaking
• Leadership

Grades should be mostly A’s and B’s (GPA 3.0 or better)
Address academic challenges in personal statement

2 semesters = 3 quarters = academic year
Personal Statement

• “Cover letter”
• Describe your interest and experiences in reproductive science and why you want to study at the graduate level
• Describe your professional aspirations and how the MS-RSM fits into those goals
• Address hardships and challenges
• Be specific- Are there scenarios that you can describe which demonstrate your love and commitment to science? Work ethic? Professionalism? Maturity?

• Writing sample
• Use professional language, proper grammar, and edit for clarity and length
• Ask trusted friend/colleague/advisor to read your personal statement
• 2 pages
CV or Resume

- Complements other aspects of application
- Include professional, volunteering, leadership activities
- Use resume/CV to share what is not in your personal statement

- Writing sample
- Formatting
- Spelling
- Word usage
- 2 pages
- Consult career advising
Letters of Recommendation

- 2 letters are required
- Anyone who has academic, professional experience with you
- Select leaders, mentors, advisors, supervisors, NOT peers, colleagues, family members

Looking for:
- Academically strong in the sciences and capacity for research
- Mature, professional, interpersonal skills (team work)
- Time management, work ethic, resilience, adaptability, capacity for improvement

- Describe situations/experiences/impressions
- Ready to take on challenges of science at the graduate level
- Institution letterhead
GRE or MCAT-OPTIONAL

• Optional
• 70th percentile or above
• Evidence of verbal and mathematical competence
International Students- English Language Proficiency

• English language of instruction at NU

• All admitted students must demonstrate English language proficiency
  • Earning a graduate or undergraduate degree from institutions in which the language of instruction is English
  • TOEFL 90
  • IELTS 7

• English skills demonstrated:
  • Personal Statement
  • Resume/CV
  • Interview
Interviews

• Qualified applicants invited to interview
• In-person or videoconference

• Prepare to discuss entire application
• More depth
  • Interest in reproductive science and medicine
  • Professional goals
  • Why the MS-RSM?
  • Research, leadership experiences
• Professional dress and environment
## Application and Interview Outcomes

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<tr>
<th>Admitted/Accepted</th>
<th>Waitlisted</th>
<th>Rejected</th>
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<tbody>
<tr>
<td>Offered slot in the incoming MS-RSM cohort</td>
<td>Potential slot in the incoming MS-RSM cohort</td>
<td>No available slot in the incoming MS-RSM cohort</td>
</tr>
<tr>
<td>Meets or exceeds all admissions requirements</td>
<td>Meets admissions requirements OR Previous performance indicates potential but does not meet admissions requirements</td>
<td>Does not meet admissions requirements</td>
</tr>
<tr>
<td>Required to accept/deny the offer of admissions</td>
<td>Program informs when a slot becomes available</td>
<td>Decisions are final</td>
</tr>
<tr>
<td>Accepting offer informs MS-RSM and NU that you will join the program in September. Same weight as accepting a job offer.</td>
<td>Inform program if/when you accept a different offer</td>
<td>Ability to reapply</td>
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### International Students:
Visa process requires proof of financial support.
Questions?

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repro-masters@northwestern.edu
312-503-6306