School of Graduate Studies Biomedical Health Sciences at New Brunswick/Piscataway Campus Welcomes You To the Fall 2018 New Student Orientation August 20 Main Lecture Hall
Congratulations!
We are proud to announce that 19 of our recent MBS graduates have been ACCEPTED at Robert Wood Johnson Medical School.

79 proud MBS alumni attending RWJMS and growing!
Program Leadership:

Directors of the Master of Biomedical Science Program

Debabrata Banerjee, PhD & Smita Thakker-Varia, PhD
Rutgers University

Three major Campuses

- New Brunswick
- Newark
- Camden

- 49,681 Undergraduate Students
- 19,517 Graduate Students
- 69,198 total students

- Rutgers U–New Brunswick: 49,577 students
- Rutgers Biomedical and Health Sciences: 6,769 students
- Rutgers U–Newark: 12,768 students
- Rutgers U–Camden: 6,853 students
General Outline

- Administration of the program
- Overview of the MBS graduate Program
- University services and policies
- Program expectations
- Next Steps
School of Graduate Studies at New Brunswick/Piscataway

Research Tower R-102

James Millonig, PhD, Senior Associate Dean
Smita Thakker-Varia, PhD, Assistant Dean for Graduate Academic and Student Affairs
Debabrata Banerjee, PhD, Assistant Dean Global Initiatives

http://rwjms.rutgers.edu/education/gsbs/index.html
http://rwjms.rutgers.edu/gsbs/msbs.html
SGS Biomedical Health Sciences Staff
RWJMS Research Tower R-102

Tina Cicollela
Management Assistant
732-235-2106
cicoletm@rutgers.edu

Johanna Sierra
Admission Coordinator
732-235-5016
sierrajo@rutgers.edu
Student Demographics of the MBS class of 2018-2019

- **350** Applicants; **~160** admitted; **~115** have matriculated
- **30%** are from out of state
- **60:40** ratio of female: male
- Average GPA is **3.3**
- Average MCAT is **500**
- Average DAT **18 (5)**
- Average GRE Score is **V:57%;Q:53%;W:63%**
Your Undergraduate Majors

- American Studies Applied Kinesiology
- **Biology**, Biochemistry, Biomedical Engineering, Bio. Sciences, Biopsychology, Biology and Business Admin
- Cell Biology, Cell Bio Neuroscience, Chemistry, Civil Engineering
- Economics, Engineering, Exercise Science
- Finance and Accounting, Finance
- General Biology, Genetics
- Health Science, Hebrew and Judaic, Human Biology
- Kinesiology
- Life Science
- Mathematics, Microbiology Medicine, Health and Society
- Neuroscience, Nutrition
- Pharmaceutical, Polymer Engineering, Psychology Public Health
- Spanish
Your Undergraduate Colleges or Universities

- Amity University
- Boston College, Boston University
- California St U. East Bay, Case Western Reserve, Chang Gung U., Colby College, Cornell U, College of New Jersey (5), CUNY Brooklyn College (3), CUNY Queen College.
- Duquesne U
- Fairleigh Dickinson U Madison, Fordham University
- Georgia Mason U, Guizhou U
- Indiana University Pennsylvania
- Johns Hopkins U
- Kean University,
- Lafayette College, Lee U, Lehigh U
- Manhattan College, Marquette U, Middle East Technical U, Montclair State U (2), Muhlenberg College
- New York U (2)
- Penn State U (2), Providence College
- Rutgers U (41)
- Seton Hall U (3), Spelman College, St Cloud State, Stony Brook U SUNY (4)
- Tamil Univ., Temple U, Texas State U San Marcos, Texas Womans U
- Vanderbilt U, Villanova U,
- Western Washington U.
Logistics

- Health Insurance (waive by September 30th)
- Immunization records
- Financial aid
- Rutgers ID Cards (online)
- Parking virtual tags (*purchase permit on-line*)
- Course Registration
  - PINS will be sent to you by email
Rutgers Connect 365 Email

- Email can be accessed using connect.rutgers.edu and login with your entire email address NetID@gsbs.rutgers.edu and then your NetID password.

- RWJ OIT only supports the Rutgers Connect 365 Web Access which can be accessed directly at https://connect.rutgers.edu.

- RWJ OIT does not support setting up any email clients such as Outlook or MacMail for email and does not support setting up email on any mobile devices.
MSBS/MBS: Program Outline

http://rwjms.rutgers.edu/education/gsbs/msbio.html

Important Links for current MBS Students

Student E-mail

Google Calendar

Connect.rutgers.edu

AMP Portal
Important Information

- Activate your Rutgers email
- Check Rutgers email regularly
- Check Rutgers email regularly
- https://my.rutgers.edu: the portal
  This is the single point of sign-on to many web based resources
- Academic Management Platform (AMP)
  *all course related materials will be posted*

https://rwjmsamp.rwjms.rutgers.edu/rwjmsed/block/
Transportation Services

1) Shuttle service between the Research Tower/CABM (Lot C) in Piscataway to Clinical Academic Building (CAB) in New Brunswick (Monday through Friday, 7:00 AM to 7:00 PM).
   - [rwjms.rutgers.edu/gsbs/student_affairs/Transportation.html](http://rwjms.rutgers.edu/gsbs/student_affairs/Transportation.html)
   - Real-time tracking of the shuttle location can be found online by clicking [http://www.catabus.com/Announcements/Mobileapps.html](http://www.catabus.com/Announcements/Mobileapps.html)
   - or download the mobile app.

1) Campus Bus System
   - The Rutgers-New Brunswick/Piscataway inter-campus bus and shuttle system is a service provided for all five campuses. Transportation to, from, and on campus includes campus bus, shuttle and public transportation services.
   - [http://gobble.rutgers.edu](http://gobble.rutgers.edu)
Miscellaneous Items

- **Handbook**
  [http://rwjms.rutgers.edu/gsbs/current/student_handbook.html](http://rwjms.rutgers.edu/gsbs/current/student_handbook.html)

- Academic Forms: all on the website
  [http://rwjms.rutgers.edu/education/gsbs/current/forms.html](http://rwjms.rutgers.edu/education/gsbs/current/forms.html)

- Excused absences, approval required (Johanna has forms)
- EXAMSOFT on iPads (will be distributed)
- Mentoring Program
- Meal Plan
- Housing end dates
MSBS/MBS: Program Outline
http://rwjms.rutgers.edu/education/gsbs/msbio.html

- Rigorous curriculum
- Taught by Medical School Faculty-personal interaction with RWJMS faculty
- Need 30 credits to graduate
- 24 credits didactive courses
- 6 credits Capstone course
- One elective each semester
- Grade Point Average of “3.0” (B)
- For MSBS-completion of a lab based research thesis (2-3 years)
# MSBS/MBS at SGS Biomedical Health Sciences-NB/Pisc Curriculum

## Fall Term Daytime Required courses:

<table>
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<tbody>
<tr>
<td>Cellular Structure and Function</td>
<td>MSBS 5065S</td>
<td>Joseph Kramer/Jia Shi</td>
<td>3 credits</td>
</tr>
<tr>
<td>Microbiology &amp; Immunology</td>
<td>MSBS 5055S</td>
<td>Lee Ann Schein/Cynthia Israel</td>
<td>3 credits</td>
</tr>
<tr>
<td>Physiological Basis of Disease</td>
<td>MSBS 5025S</td>
<td>Joseph Fondell</td>
<td>3 credits</td>
</tr>
<tr>
<td>Capstone Course I</td>
<td>MBS 5040S</td>
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# MSBS/MBS at SGS Biomedical Health Sciences-NB/Pisc Curriculum

## Fall Term Elective courses:

**Elective Courses:** YOU WILL REGISTER FOR ONE ELECTIVE ONLY

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<th>Credits</th>
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<tr>
<td>Clinical Drug Development</td>
<td>MSBS 5120S</td>
<td>Dr. William Welsh</td>
<td>2 credits</td>
</tr>
<tr>
<td>Humanism in Medicine</td>
<td>MSBS 5015S</td>
<td>Dr. Heather Lee</td>
<td>2 credits</td>
</tr>
<tr>
<td>Personalized Medicine</td>
<td>MSBS 5090S</td>
<td>Dr. Jim Millonig</td>
<td>2 credits</td>
</tr>
<tr>
<td>Primer on Global Health</td>
<td>MSBS 5080S</td>
<td>Dr. Escobar/Dr. Nkemjika</td>
<td>2 credits</td>
</tr>
<tr>
<td>Regenerative Medicine</td>
<td>MSBS 5085S</td>
<td>Dr. Debu Banerjee</td>
<td>2 credits</td>
</tr>
<tr>
<td>Neurobiology of Addiction</td>
<td>MSBS 5135S</td>
<td>Dr. Anthony Tobia</td>
<td>2 credits</td>
</tr>
<tr>
<td>Neurons and Neighbors</td>
<td>MSBS 5095S</td>
<td>Dr. Gold/Dr. Minar</td>
<td>2 credits</td>
</tr>
<tr>
<td>Embryology</td>
<td>MSBS 5075S</td>
<td>Dr. Grace Pinhal-Enfield</td>
<td>3 credits</td>
</tr>
<tr>
<td>Effective Communication</td>
<td>MSBS 5145S</td>
<td>David Dannenfelser</td>
<td>2 credits</td>
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<tr>
<td>Gross Anatomy</td>
<td>MSBS 5010S</td>
<td>George Mulheron</td>
<td>4 credits</td>
</tr>
<tr>
<td>Medical Biochemistry</td>
<td>MSBS 5020S</td>
<td>Emine Abali</td>
<td>3 credits</td>
</tr>
<tr>
<td>Pharmacotherapeutics</td>
<td>MSBS 5045S</td>
<td>J. Don Chen</td>
<td>3 credits</td>
</tr>
<tr>
<td>Capstone Course II</td>
<td>MBS 5040S</td>
<td>Thakker-Varia/Banerjee</td>
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<td>Behavioral Science</td>
<td>MSBS 5070S</td>
<td>Dr. Anthony Tobia</td>
<td>3 credits</td>
</tr>
<tr>
<td>Embryology</td>
<td>MSBS 5075S</td>
<td>Dr. Grace Pinhal-Enfield</td>
<td>3 credits</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>MSBS 5050S</td>
<td>Dr. Cliff Weisel</td>
<td>3 credits</td>
</tr>
<tr>
<td>Topics in Biomedical Ethics</td>
<td>MSBS 5130S</td>
<td>Dr. Francis Barchi</td>
<td>3 credits</td>
</tr>
<tr>
<td>Clinical Pharmacology Small group</td>
<td>Phar 5620S</td>
<td>Dr. Daniel Plich</td>
<td>3 credits</td>
</tr>
<tr>
<td>Human Physiology in Medicine</td>
<td>MSBS 5081S</td>
<td>Dr. Joseph Fondell</td>
<td>3 credits</td>
</tr>
<tr>
<td>Biomedical Aspects of Aging</td>
<td>MSBS 5140S</td>
<td>Dr. Federico Sesti</td>
<td>3 credits</td>
</tr>
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</table>
What is the Capstone Course?

- Required course
- Involves an independent mentored project
- Defined project with reasonable scope
- Mentor helps defining the hypothesis and research methods
- Can be literature based or lab based project
- Expect to spend at least 9 hours per week or ~100 hours per semester on the project

Capstone Course Meeting is on September 14th at 12:00 PM
Online Registration begins from August 21 – September 31

- Your bills are due *immediately*. You will be at high risk for **Non-Payment Holds and de-registration** if your balances are not paid immediately following registration.

- Students with completed and approved Financial Aid applications awaiting disbursement of funds will **not be flagged for non-payment and will not be de-registered** as they should be identifiable in the system **as Pending Aid** by the Business Office.
ADD/DROP POLICY

- drop period is defined as **1-10 *academic days** from the beginning of a course
- withdrawal period begins immediately following the drop period and continues through the first **2/3 of the course**.
- Students withdrawing from a course between **11 and 15 academic days** after the course begins will receive an **80% tuition refund**.
- **No tuition** will be refunded beyond **15 academic days** after the course has begun.
COURSE WITHDRAWAL POLICY

- Withdrawals will be noted as “W” on the transcript. Withdrawals will NOT be granted during the final third of a course.

- withdrawing beyond 10 academic days of the beginning of the course need submission of an “Add/Drop/Withdraw” form. Completed and approved “Add/Drop/Withdraw” forms must be received by the Registrar’s office within the time periods set forth above in order for a course withdrawal to be processed.

- *An academic day is defined as a day that the Rutgers campus at which the student is enrolled is open for business.
Your Fees Include

- Student Health Services
- Student & Rec Center
- Campus Bus
- Career Services
- Student Government Association
- iPads
Centers of Excellence at Rutgers RBHS

- Brain Health Institute
- Cancer Institute of New Jersey
- Cardiovascular Institute of New Jersey
- Center for Advanced Biotechnology and Medicine
- Child Development, Institute for the Study of
- Child Health Institute of New Jersey
- Environmental and Occupational Health Science Institute
- Protein Data Base
Graduate School Committee Letter

- The Program Directors will write the Graduate Committee Letter.

- Graduate School reserves the right to refuse committee letters for the students for whom we would recommend with reservations due to poor performance.
MBS Committee Letter Checklist

ALL OF THESE ITEMS ARE RECOMMENDED IN ORDER FOR US TO WRITE A COMMITTEE LETTER

1. 1 letter of recommendation from MBS faculty or associates
2. 1 letter of recommendation from your capstone mentor
3. Your updated CV
4. AMCAS ID and Letter ID
5. List of faculty writing your letters
6. A detailed autobiographical statement (written in 3rd person) with the following items:
   ➢ A brief synopsis of your education and performance thus far including your recent MCAT score
   ➢ A description of your background
   ➢ A description of the journey you have taken to get you to this point
   ➢ Address AAMC Core Competencies
   ➢ Your personal statement (optional but preferred)
   ➢ AMCAS ID and Letter ID
Clinical Shadowing and Volunteering Opportunities

- RWJUH Volunteering Website
  http://www.rwjuh.edu/support/volunteer.html
- RWJMS Faculty Websites
- Contact area physicians
- The Homeless and Indigent Population Health Outreach Project (HIPHOP) RWJMS
- http://community.rutgers.edu
Graduate Student Associations at Rutgers University

➢ Molecular Biosciences Graduate Student Organization (MBGSO)
  ➢ **Orientation 2018 Activities:**
    ➢ Game Night: Thursday August 30th, 5:30-8:30, Deans Conf. Room
    ➢ BBQ: Friday August 31st, 1:00 PM, Waksman Courtyard

➢ NeuroConnections Club (NCC)

➢ Rutgers Association of Toxicology Students (RATS)

➢ Biomedical Engineering Student Society (BESS)

➢ NJ Seeding Labs—collect equipment to help with research in 3rd world countries
Next Year and Other Options

1. Anatomy Instructor Certificate Program post MBS

2. Preclinical Pharmacology Track option in MBS interested students (should see the Program Directors)
We wish you the very BEST and remember we are here to help!!

Just stay connected with MBS Program directors!!!
Course Title: **CLINICAL DRUG DEVELOPMENT (Bill Welsh, PhD)**

**GUEST LECTURERS**

**Steve Nadler, PhD; Executive Director of Immunology & Immuno-Oncology at Bristol Myers Squibb**

**TOPIC: Careers in Pharmaceutical Discovery and Development**

**Susan Welsh, MD, MBA; Chief Safety Officer at CSL Behring**

**TOPIC: Careers in Pharmacovigilance (Drug Safety)**

**Jill Williams, MD**

Department of Psychiatry, RWJMS

**TOPIC: Careers in Addiction and Mental Illness**

**Geza Kiss, MD**

Dept of Anesthesiology, RWJMS

**TOPIC: Careers in Anesthesiology**

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**Drugs: From Discovery to Approval**

**PRIMARY TOPICS COVERED**

- **Challenges & Opportunities in the BioPharmaceutical Industry**
- **Economics of Drug Discovery & Development**
- **Steps in Drug Discovery: Drug Efficacy, Pharmacodynamics (PD), and Pharmacokinetics (PK)**
- **Regulatory Submission & Approval (FDA)**
- **Preclinical & Pre-IND Studies**
- **Clinical Trials (First in Human)**
- **Post-Marketing Activities**
USAID Experience

Six of our master’s graduates are spending three months in Indonesia as USAID RI fellows this summer.

1. Brinda Banerjee
2. Jason Lee
3. Adithya Manohar
4. Manav Nanda
5. Sansthita Pattnaik
6. Sultan Zain

We encourage the incoming MBS class to consider applying for the prestigious USAID fellowship for an all paid summer research experience in Indonesia.
Welcome to the United States Agency for International Development (USAID) Research and Innovation Fellowships catalog.

USAID is excited to offer eligible PhD and master’s candidates an opportunity to apply their science and technology expertise overseas to do research in collaboration with hosting organizations around the world.

ELIGIBILITY

To receive fellowship funding for these projects, you must be a U.S. citizen, national, or permanent resident, and a graduate student in attendance at a U.S. university.

Additionally, to receive USAID funding, students will need to attend one of the following universities:

Arizona State University
Rutgers University
University of Chicago
University of California - Berkeley
University of California - Davis
The University of Notre Dame

Other questions or concerns? Check out our Frequently Asked Questions page or email us at rifellowships@usaid.gov.