The MBP faculty and staff are pleased to welcome you to our program!

CHRISTOPHER CHEN  
BS in Bioengineering  
University of California  
(San Diego)

WINODE HANDAGAMA  
BS in Biochemistry  
Maryville College

MIKE ORMAN  
BS in Chemical and  
Biomolecular Engineering  
Georgia Institute of Technology

TAMMY CHEN  
BS in Biochemical Science and Technology  
National Taiwan University

JAKE HOFFMAN  
BS in Molecular and Cellular Biology  
Colorado College

SHOBHIT PATORIA  
BS in Biotechnology  
Vellore Institute of Technology

ZACH COWDEN  
BS in Integrative Biology  
University of Illinois  
(Urbana-Champaign)

AMANDA KING  
BS in Life Sciences  
United States Military Academy

SIDDHANT PRABHU  
BS in Pharmaceutical Sciences and Technology  
Institute of Chemical Technology

DAMIENT DOOPER  
BS in Chemistry  
University of Georgia

RIMGAILE LUKOSIUNAITE  
BS in Biology  
Loyola University

NATALIE QUAN  
BS in Biology  
Duke University

AARON EINHORN  
BS in Molecular and Cellular Biology  
University of Illinois  
(Urbana-Champaign)

PAUL MARKS  
BS in Biology  
Illinois Institute of Technology

HARSHITH SUBRAMANIAN  
BS in Biotechnology  
National Institute of Technology (Calicut)

AMY FAN  
BS in Bioengineering  
Shanghai Jiao Tong University

JON MAURO  
BS in Biochemistry  
Boston College

LEMON TIAN  
BS in Biological Sciences  
China Agricultural University

MEGAN HALKETT  
BS in Chemistry  
Elon University

MARY MILLER  
BS in Biology  
Saint Louis University

ASHA VARGHESE  
BS in Genetic Engineering  
SRM University
I would like to welcome new and returning MBP students for what promises to be an exciting 2016-2017 academic year with many new developments in store. We are thrilled to welcome a class of 34 new students from 9 states, 5 countries, and 30 undergraduate institutions.

It is bittersweet to report the departure of Erin Riley as Teaching Lab Coordinator and Head TA. We wish Erin all the best with her new opportunity in Madison, Wisconsin, but will miss her organizational skills and commitment to the MBP students and labs. We were fortunate to attract Holly Hattaway to take Erin’s place (see the article introducing Holly).

The biggest development over the summer was the relocation of the MBP laboratory to Tech EG17-EG27. As described in more detail by Arthur Felse and Holly, the 20% increase in lab space and the new lab layout has allowed us to add another biological safety cabinet, as well as state-of-the-art new equipment. The MBP student interaction space will move to NG20, while MBP staff and faculty offices will be located in NG13-NG39.

The number of South Africa internships has doubled, with four second-year students going to Cape Town this fall. Biotechnology Day will be held in Evanston on November 10 with MBP Industrial Advisory Board member Francisco Rausa as the keynote speaker.

Many professional development events are planned for the coming year, including a site visit to California and a mixer with MBP alumni in Evanston. Please see the newsletter for more details on these and other activities.

William (Bill) Miller
Director of MBP and Professor of Chemical and Biological Engineering

AMBER WANG
BS in Biological Sciences
Jinan University

MARIA WANG
BS in Biology
Hong Kong Baptist University

YU WANG
BS in Biotechnology
Jiangnan University

DUBBY WISEMAN
BS in Chemical Engineering
Clemson University

FLORA YANG
BS in Biotechnology
China Agricultural University

MARINA YANG
BS in Biological Sciences
Beijing University of Agriculture

YIYI YAO
BS in Agriculture
University of Wisconsin (Madison)

KATE ZHU
BS in Biochemistry
University of California (Los Angeles)

LEI ZHOU
BS in Ecology
China Agricultural University

MARY ZHOU
BS in Chemistry
University of Florida

JESSICA YEH
BS in Marine Biotechnology and Resources
National Sun Yat-Sen University

DONGQI YI
BS in Pharmacy
Nankai University

DIDY ZHA
BS in Crop Science
Purdue University
NEW AND IMPROVED LAB FACILITIES

Renovations on the MBP teaching lab are now complete!

The MBP teaching lab moved to a bigger and better space within the TECH building this quarter. The new lab space is custom-designed to meet the unique needs of a sophisticated biotechnology laboratory. With 20% more space and additional lab benches, the new facilities will allow for a comfortable student experience and the possibility of adding advanced equipment. Our new lab space will be used to teach MBP’s Molecular Biotechnology and Bioprocess Engineering laboratory courses.

Concomitant with our move to the new space, we added new equipment to the teaching laboratory. MBP students will now receive hands-on training in several advanced experimental methods using state-of-the-art, industry-standard equipment. New additions include flow cytometry (Gauva), automated Western Blot (SimpleWes), multi-array metabolite analysis (CedexBio), bioreactor off-gas analysis (BlueSens), and a semi-automated tangential flow filtration system (Cogent TFF).

Since the new lab space was renovated from the bottom up without constraints to work around preexisting work surfaces or other built-ins, we were able to tailor the laboratory layout to accommodate new equipment and implement a floor plan which will improve student flow and learning experiences in the lab. The new lab facilities also allow us to dedicate separate rooms for microbial and animal cell experiments, thereby eliminating the possibility of cross-contamination during experiments. The curriculum for MBP laboratory courses has been updated to include training in advanced experimental methods. Overall, the new lab space will provide an enhanced and superior educational experience for our students.
INTRODUCING HOLLY!

Holly Hattaway is our new Teaching Lab Coordinator

Holly joined MBP in the summer of 2016 after having worked in research for many years. She began her love of research as an undergrad at Northeastern Illinois University where she studied the effects of folic acid intake on developing mammalian embryos. After graduating, Holly began working at Northwestern in a microscopy research lab where she studied HIV transmission. Later, she went on to research genetic factors pertaining to pancreatic cancer. Currently, Holly is enjoying meeting and working with all of the new and continuing MBP students at Northwestern. She is a volunteer with the Girl Scouts of America, where she shares her love of science and math with junior high age children. She lives in her native home of Chicago, where she enjoys talking about the World Champion Chicago Cubs, tinkering with cars, and teasing Svetelana in her free time.

Although Holly may not be a huge fan of writing in the third person, she can be persuaded to do so for the right people.

BIOTECHNOLOGY DAY

Join us on November 10th!

Each year the Master of Biotechnology Program hosts Biotechnology Day, a one-day life sciences festival designed to inspire and inform curious minds. We aim to reach a broad community of students, scientists, and science enthusiasts. This year’s event includes community outreach activities, tours of facilities, career panels (with technical and non-technical focuses), a keynote speaker, and an open networking session.

This year, Biotechnology Day will be held on November 10th at Norris University Center from 8:30am to 7:00pm. The morning portion of our event will consist of community outreach activities involving high school students involved with STEM. The afternoon and evening portion of our event will be focused on professional development opportunities for current and prospective master’s students.

Biotechnology Day will conclude with an open networking session from 5:30pm to 7:00pm, which you are most welcome to attend. Refreshments will be provided.

We hope to see you there!
MBP students visit largest research park in USA

On July 18th, our first stop was the Research Triangle Park (RTP) headquarters, where we learned about the history of the RTP park. The presentation given by Abby Gingrich, Business Development Coordinator, was insightful and educational. We then visited KBI Pharma, a contract manufacturing organization (CMO) that focuses on developing and manufacturing therapeutics. We received a comprehensive tour of their upstream, downstream, and analytical development areas, led by Sigma Mostafa, Vice President of Process Development. Additionally, we participated in a career panel that included MBP alumni and others.

On July 19th, we visited Fujifilm Diosynth Biotechnologies, a CMO of biologics and vaccines. Our host, Min Zhang, Senior Principal Scientist, arranged a tour and career panel for our group. Next, we visited Galaxy Diagnostics, a startup diagnostic company that originated at North Carolina State University. The company performs diagnostics for borrelia and bartonella bacterial species. The last stop of our trip was Biogen, a large scale biopharmaceutical company that produces medicine for multiple sclerosis (MS) and is making strides to tackle neurological conditions and rare genetic disorders. We were impressed with their 250,000 square foot large-scale manufacturing plant, which contains 90,000 liters of bioreactor capacity.

We look forward to our next site visit to sunny California during Spring Break 2017!
ABS STUDENT MIXER

Association of Biotechnology Students hosts wine and paint event at Bottle & Bottega

COOK PHARMICA MEET & GREET

The MBP hosted a Meet and Greet with Cook Pharmica, a contract manufacturing organization, on September 22, 2016. Todd Stone, PhD, Senior Scientist, and Claudia Berdugo, PhD, Senior Scientist, covered key facts about the company’s structure and what type of therapeutics they produce for their clients. On September 23rd, Todd and Claudia interviewed MBP students for their 6-month co-op beginning January of 2017. 25 MBP students attended this event.

BLUEPRINT RESEARCH GROUP WORKSHOP

BluePrint Research Group and MBP hosted a case study workshop at the Guild Lounge at Northwestern University. The workshop itself was based on a real pharma/biotech engagement and was intended to be an interactive session where the attendees evaluated the market situation and available data, then developed actionable and meaningful recommendations for a client. The event had 43 attendees consisting of MBP students, MBP alumni, and NU Students.

MBP ALUMNI MIXER

On October 28, 2016, the MBP hosted its first ever Alumni Mixer at Prairie Moon in downtown Evanston. The program provided food and drinks for students, alumni, faculty, and staff. We had 56 attendees this time, and we hope to have more in the future! The next alumni mixer will be held during spring term.
## EVENT CALENDAR

### SEPTEMBER

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
<th>Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>ABS Student Mixer</td>
<td>Thursday, September 15</td>
<td>6:00PM - 8:00PM</td>
<td>BOTTLE &amp; BOTTEGA</td>
</tr>
<tr>
<td>New Student Mixer</td>
<td>Saturday, September 17</td>
<td>5:30PM - 7:30PM</td>
<td>FIREHOUSE GRILL</td>
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<tr>
<td>Cook Pharmica Meet and Greet</td>
<td>Thursday, September 22</td>
<td>4:00PM - 6:00PM</td>
<td>WILLENS WING ATRIUM</td>
</tr>
<tr>
<td>Two-Day Fall Internship &amp; Job Fair</td>
<td>Tuesday &amp; Wednesday,</td>
<td>12:00PM - 4:00PM</td>
<td>NORRIS UNIVERSITY CENTER</td>
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<td></td>
<td>September 27-28</td>
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<tr>
<td>Pfizer Info Session</td>
<td>Thursday, September 29</td>
<td>10:00AM - 12:00PM</td>
<td>TECH A230</td>
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### OCTOBER

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<th>Event</th>
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<th>Time</th>
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<tbody>
<tr>
<td>BluePrint Research Group Workshop</td>
<td>Monday, October 10</td>
<td>6:00PM - 8:00PM</td>
<td>GUILD LOUNGE</td>
</tr>
<tr>
<td>Mock Interview Day</td>
<td>Thursday, October 13</td>
<td>ALL DAY</td>
<td>TECH BUILDING</td>
</tr>
<tr>
<td>ABS Fall Social Activity</td>
<td>Saturday, October 15</td>
<td>12:00PM - 5:00PM</td>
<td>RICHARDSON'S ADVENTURE FARM</td>
</tr>
<tr>
<td>McCormick Networking Mixer</td>
<td>Wednesday, October 19</td>
<td>5:00PM - 7:00PM</td>
<td>TECH BUILDING</td>
</tr>
<tr>
<td>SWE Industry Day Career Fair</td>
<td>Thursday, October 20</td>
<td>4:00PM - 9:00PM</td>
<td>HILTON GARDEN INN</td>
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### NOVEMBER

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<th>Event</th>
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</thead>
<tbody>
<tr>
<td>McCormick Interview Day</td>
<td>Friday, October 21</td>
<td>ALL DAY</td>
<td>TECH BUILDING</td>
</tr>
<tr>
<td>Robert H. Lurie Comprehensive Cancer Center Visit</td>
<td>Friday, October 21</td>
<td>9:30AM - 12:00PM</td>
<td>R.H.L. CANCER CENTER</td>
</tr>
<tr>
<td>MBP Alumni Mixer</td>
<td>Friday, October 28</td>
<td>6:00PM - 8:00PM</td>
<td>PRAIRIE MOON</td>
</tr>
<tr>
<td>MBP Open House</td>
<td>Thursday, November 10</td>
<td>12:00PM - 1:45PM</td>
<td>TECH NG13</td>
</tr>
<tr>
<td>Biotechnology Day</td>
<td>Thursday, November 10</td>
<td>2:00PM - 7:00PM</td>
<td>NORRIS UNIVERSITY CENTER</td>
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### LOOKING FOR INSIGHT INTO THE FOLLOWING COMPANIES?

- ADM
- ANSYS
- Athersys
- Deloitte
- Fresenius Kabi
- Invicro
- Kraft Heinz
- LanzaTech
- Nanocytomics
- Novalex Therapeutics
- Ohm
- Panasonic
- Pfizer
- Right Pathways
- Shire

### THEN JOIN US FOR CAREER PANELS & NETWORKING AT BIOTECHNOLOGY DAY!