

# INSIGHT

WELCOME CLASS OF 2017!

CONTINUED INSIDE »

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



**SIMI ABRAHAM**  
BS Biology  
University of Colorado  
(Denver)



**NING HAN**  
BS Biopharmaceutical  
Technology  
China Pharmaceutical  
University



**NIKHIL MAHESHWARI**  
BS Genetics and Genomics  
University of California  
(Davis)



**IBRAHIM ALQEMLAS**  
BS Biotechnology  
University of Nottingham



**GIULIA HINDERMANN**  
BS Neuroscience  
University of Illinois  
(Chicago)



**AUSTIN MILLER**  
BS Biochemistry and  
Biophysics  
Rensselaer Polytechnic  
Institute



**YEONGEE (ESTHER) CHAE**  
BS Biology  
Purdue University



**FREDERICK HSU**  
BS Biochemistry  
University of California  
(Los Angeles)



**ROHAN MOHINDROO**  
BS Biomedical Sciences,  
Dominican University  
BS Finance,  
Elmhurst College



**TANNER COOK**  
BS Biochemistry  
University of Minnesota



**YAROSLAV KAMINSKIY**  
BS Global Economy,  
Moscow State Institute of  
International Relations



**CAMERON NIAZI**  
BS Biological Sciences  
Cornell University



**DANIEL FERNANDEZ**  
BS Biology  
Boston College



**MICHELLE KOFORD**  
BS Human Nutrition,  
The Ohio State University  
MS Health Education,  
University of Cincinnati



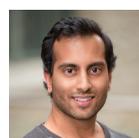
**FAITH OGUNGBE**  
BA Anthropology  
Northwestern University



**XIAOZHI (KEVIN) GAO**  
BS Biomedical Engineering  
Rose-Hulman Institute of  
Technology



**CHUANLU (JASON) LIU**  
BS Biotechnology  
Sun Yat-Sen University



**NISAR PAREKH**  
BS Neurobiology  
University of Texas (Austin)



**MAYA HALTHORE**  
BS Biology / BA Economics  
Virginia Polytechnic  
Institute and State  
University



**JESSICA LONG**  
BS Biology  
University of North  
Carolina (Greensboro)



**ZACHARY PAUL**  
BS Biological Sciences  
Missouri University of  
Science and Technology

## FROM THE DIRECTOR

**G**reetings from Evanston and the Master of Biotechnology Program. It is hard to believe that we are already finishing the fall quarter! Our new class of 32 MBP students from 28 undergraduate institutions located in 13 US states and 4 other countries is now settled in, and recently selected their research preceptors.

I am also pleased to welcome two new members to the MBP faculty/staff team. Genn Suyeoka joined us in August as the MBP Teaching Laboratory Coordinator and Head TA. Genn brings many years of NU research experience to his new role in the MBP. Chemical and Biological Engineering Associate Professor Danielle Tullman-Ercek will join us in January to take on the newly created position of MBP Co-Director.

Danielle was recruited to Northwestern from UC Berkeley in September 2016, and supervised four MBP student research projects in

her first year at NU! Her research expertise in metabolic engineering and synthetic biology complements my strength in cell therapies and biotherapeutic protein production in animal cells, and she also brings many new biotech industry contacts to the MBP.

Danielle will work with me and the rest of the MBP team to ensure that our program continues to adapt to prepare our students for a wide range of career opportunities in the rapidly evolving biotechnology and related industries. Please see the rest of the newsletter to learn more about Danielle, Genn, and our new students.

It was great to see many MBP alumni at our fall mixer at Smylie Brothers Brewing Company. If you haven't already done so, please see our new MBP video ([on our homepage](#)) and share it with your colleagues and potential MBP students.

*All of us at the MBP send our best wishes for the holiday season and a great year in 2018!*



**William (Bill) Miller**

Director of MBP and Professor of Chemical and Biological Engineering



**MICHAEL REED**

BS Environmental Engineering  
Cornell University



**ERIK SMOY**

BA Biology  
Knox College



**YIFAN XU**

BS Pharmaceutics  
East China University of Science and Technology



**SUCHITRA SANKARANARAYAN**

BS Pharmacy  
Institute of Chemical Technology



**SUSMIT SUKTHANKAR**

BS Chemical Engineering  
Rice University



**DANIELLE YOESEP**

BS Neuroscience  
University of Southern California



**AFRA SIDDIQUI**

BFA Art  
University of Illinois (Chicago)



**KATHERINE TAN**

BA Biochemistry  
University of Texas (Austin)



**DIAN ZHANG**

BS Biochemistry &  
BS Nutritional Science  
University of Wisconsin (Madison)



**XIAOLEI SITU**

BS Animal Science  
China Agricultural University



**YIDAN WANG**

BS Biotechnology  
Sun Yat-Sen University



## INTRODUCING DANIELLE

### Danielle Tullman-Ercek to join as MBP Co-Director

“It is with pleasure that I join the MBP team as Co-Director in January. When I arrived at Northwestern just over a year ago, I was already aware of the program and its impressive reputation in the biotechnology industry, but I soon learned first hand that it is the people who run the program and the MBP students that make it such a top destination for students eager to enter this field. Thus it is an honor to join this amazing team.

“By way of introducing myself, I earned my BS in Chemical Engineering from the Illinois Institute of Technology, right here in Chicago. I did my graduate work at University of Texas at Austin, also in chemical engineering, with research in the area of protein export and protein engineering under the guidance of George Georgiou. After two short postdocs at University of California San Francisco with Chris Voigt

working in synthetic biology and biomaterials, and Lawrence Berkeley National Laboratory with Blake Simmons working in biofuels, I joined the faculty of University of California Berkeley.

“My research incorporates almost all of these areas: my lab uses synthetic biology and protein engineering tools to manipulate cells for biofuel, biochemical, and biomaterial production. Northwestern’s emphasis on synthetic biology research brought me here in 2016, at which time I joined the faculty of Chemical and Biological Engineering as an Associate Professor.

“Synthetic biology advanced rapidly since I first began working in the area over ten years ago, and I had a front-row seat to watch as research achievements gave rise to a variety of companies that exploit these methods to make chemicals and materials.



“I look forward to working with MBP staff and students to leverage my connections in this new and growing area, while also helping to keep up the traditional strengths of this great program.”

— Danielle Tullman-Ercek

***“I look forward to working with MBP staff and students to leverage my connections in this new and growing area, while also helping to keep up the traditional strengths of this great program.”***



## INTRODUCING GENN

### Our new Teaching Lab Coordinator

Genn Suyeoka joined MBP in 2017 after working in basic research: an interest in the mechanisms underlying human and animal behavior lead to work in physiology, conducting experiments in vivo, modeling epilepsy and learning and memory. Working in vitro, he studied neuromuscular fatigue and codeveloped a model of hypoxic nerve damage. In a paradigm shift, he became an initiate in molecular biology, in search for the biological

clock. Subsequent work involved molecular studies of ion channels, synaptic turnover, and neural degeneration.

Genn aspires to transcendence from dilettantism to an integrated and broad research experience that is germane and accessible to students. He appreciates art, music, animals, nature, and, through volunteering, a restoration of the human and animal behavior phenotypes.

— Genn Suyeoka

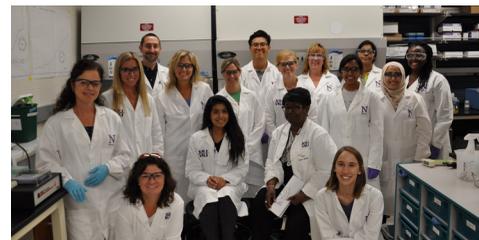
# BIOBUILDER TEACHER WORKSHOP

## MBP collaborates with Northwestern's Office of STEM Education Partnership

The MBP teaching laboratory hosted the BioBuilder Teacher Professional Development Workshop during summer 2017. This three-day professional development opportunity managed by the Office of STEM Education Partnership at NU is designed to prepare school educators to bring biological engineering and synthetic biology into their classrooms and laboratories.

The workshop includes lectures that connect the STEM aspects of these fields, labs and classroom activities, lunchtime discussions with members of the synthetic biology community, and activities that address the nuts and bolts of running an iGEM team. Chemical and Biological Engineering PhD student Jessica Stark led the workshop.

— Arthur Felse



# STUDENT HEALTH & WELLNESS EVENT

## First MBP wellness seminar hosted by Senior Associate Dean Mona Dugo

Senior Associate Dean Mona Dugo presented a wellness seminar to the new cohort of MBP students on November 30th. She gave an overview of service and wellness programs available through the Dean of Students Office. Students were encouraged to share their concerns and struggles.

The Dean of Students Office serves, supports, and empowers students and other members of the Northwestern community to promote student success. They offer a variety of program to foster academic excellence, and to promote medical, psychological, and emotional wellness of students. Specifically, services offered by Counselling and Psychological Services

(<http://www.northwestern.edu/counseling>) and Accessible NU (<http://www.northwestern.edu/accessiblenu>) were discussed.

During the seminar, students discussed a few of the common academic and emotional challenges they have had during their first quarter at Northwestern. Mona Dugo encouraged students, faculty, and staff to use resources such as Let's Talk events (<http://www.northwestern.edu/counseling/outreach-education/lets-talk>), group therapy (<http://www.northwestern.edu/counseling/clinical-services/clinical-services-overview/group-therapy>), NUHelp app (<http://www.northwestern.edu/nuhelp/get-help/nu-help-app>), and



Share a Concern program (<http://www.northwestern.edu/nuhelp/get-help/report-a-concern>) to promote students' emotional health.

— Arthur Felse



## ANNUAL MBP ALUMNI MIXER

### Second annual Alumni Mixer held at Smylie Brothers Brewing Company

On October 27, 2017, MBP hosted the 2<sup>nd</sup> Annual Alumni Mixer at Smylie Brothers Brewing Company, located in the Evanston area. We had more than

70 guests attend, a mix of alumni and students. This event is a great way for our faculty, staff, alumni and students to interact with one another with food and laughter.

At MBP, we believe in the importance of having our alumni keep connected with students and the program.

— *Natalie Champagne*



## SPRING SITE VISIT

### MBP returning to Bay Area Biotech Cluster

Our next site visit will be on March 29<sup>th</sup> and March 30<sup>th</sup> to San Francisco.

Natalie Champagne will be accepting student applications from January 22, 2018 until January 26, 2018.

— *Natalie Champagne*

**STAY TUNED FOR  
FURTHER DETAILS  
ABOUT OUR  
SPRING SITE VISIT!**

**“Achieving [these] biotechnology moonshots depends on having a well-trained group of students and scientists and engineers... And our students from the MBP will play important roles both in developing research and putting it into practice in terms of scale up and commercialization.”**

— Bill Miller, MBP Director



## NEW DIGITAL MARKETING EFFORTS

**MBP faculty, students, and alumni team up to record our new promotional video**



**M**any thanks to David Giljohann (IAB member), Melvin Moore (alum, 2012), Bettina Wunderlich (alum, 2017), Ricky Bellin (alum, 2012), and other MBP students who made themselves available to record an outstanding short marketing video.

The video, produced by Stephanie Wiegel (alum, 2015) and Tyler Kaschke (Forward Motion Media), showcases our program's competitive advantages and touches upon the present and future of biotechnology.

We plan to use this video in presentations to industrial partners and on social media for recruiting.

Take a look at the video, which can be found on the MBP homepage (<http://www.mccormick.northwestern.edu/biotechnology>) and McCormick YouTube channel, and catch up with the MBP.

— Igor Kourkine

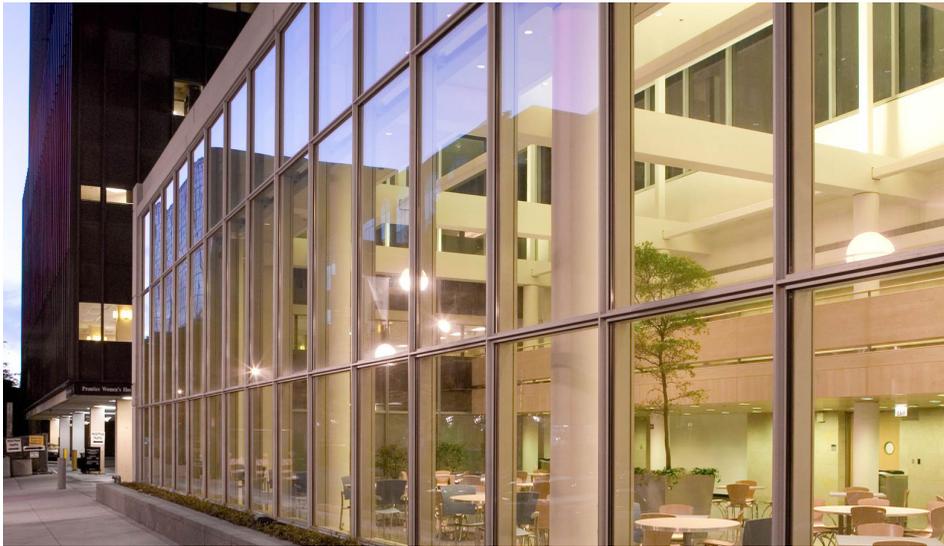
# ROBERT LURIE CANCER CENTER VISIT

## MBP students visit RLCCC for preceptor presentations

The Robert H. Lurie Comprehensive Cancer Center (RLCCC) at Northwestern University hosted a set of research preceptor presentations for the first year MBP students on October 27, 2017.

This fall, 12 preceptors did recruitment presentations offering more than 20 projects. Four research groups offered lab tours for MBP students. Advanced and early stage faculty members offered research projects in areas ranging from basic cell and molecular biology of cancer, to cancer diagnosis, to therapeutics development, to translational cancer medicine.

About 25% of MBP students work in cancer research, which is one of MBP's legacy research areas. MBP's strong presence in cancer research capitalizes on NU's research



excellence in this area.

Professor John Crispino, Associate Director for Education at RLCCC, led the presentations.

A list of presenters is shown below.

— Arthur Felse

## ROBERT LURIE CANCER CENTER PRECEPTORS



**ATIQUE AHMED, PHD**  
Department of Neurological Surgery



**CONGCONG HE, PHD**  
Department of Cell and Molecular Biology



**WILLIAM MULLER, MD/PHD**  
Department of Pathology



**ELIZABETH EKLUND, MD**  
Division of Hematology/Oncology



**HUIPING LIU, PHD**  
Department of Pharmacology



**DILEEP VARMA, PHD**  
Department of Cell and Molecular Biology



**DAN FOLTZ, PHD**  
Department of Biochemistry and Molecular Genetics



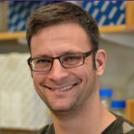
**BRIAN MITCHELL, PHD**  
Department of Cell and Molecular Biology



**JINDAN YU, MD/PHD**  
Division of Hematology/Oncology



**VLADIMIR GELFAND, PHD**  
Department of Cell and Molecular Biology



**MARC MENDILLO, PHD**  
Department of Biochemistry and Molecular Genetics



**ZHUOLI ZHANG, MD/PHD**  
Department of Radiology