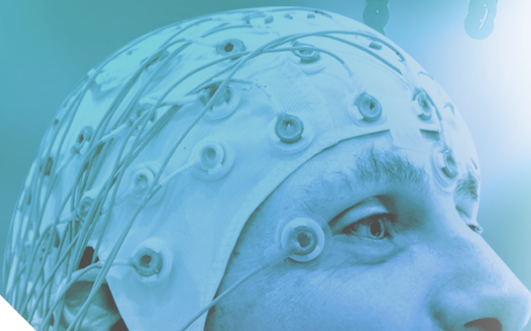




2015

COMMENCEMENT AND
HONORS CELEBRATION



DREXEL UNIVERSITY
School of
**Biomedical
Engineering, Science
and Health Systems**

COMMENCEMENT AND HONORS CELEBRATION

Wednesday, June 10, 2015. 5:00 PM

Behrakis Grand Hall – Creese Student Center

(Creese Student Center is located on Chestnut Street, between 32nd and 33rd Streets)

Program of Events

RECOGNITION PROGRAM AND DINNER – 5:00 PM

WELCOME AND GREETING by **Dr. Ken Barbee**, Interim Director

SPECIAL RECOGNITIONS

The Elisabeth Papazoglou Inspired Leadership Award: **Banu Onaral**

In recognition of an individual who demonstrates exceptional abilities to lead, serve, collaborate and inspire with broad impact and special distinction.

Distinguished Alumni Award: **Dalia El-Sherif**

In recognition of an alumnus who has personified the traditions of excellence of the School of Biomedical Engineering, Science and Health Systems and has brought recognition to the School and the University through their personal accomplishment, professional achievement, and/or humanitarian service.

Distinguished Service Award: **Marisol Rodriguez Mergenthal**

In recognition of outstanding service by a member of the University community in supporting our students and advancing the mission and ideals of the School of Biomedical Engineering, Science and Health Systems.

Faculty Recognition Award (introduction by Andres Kriete): **Duane David Ebaugh** and **Noel M. Goodstadt**

In recognition of many years of dedicated and inspiring teaching in a hands-on laboratory environment

Senior Design Team Awards

- ◆ First Place Team: “Continuous Monitoring of Patient Airway for Laryngospasm” – **Ian Adam, Nathan Lear, Michael Lucas, Derek Rau, and Bhavit Vora** / Advisors: **Fred Allen, John Fiadjoe, and Lin Han**
- ◆ Runner Up Team 1: “Online Pre-Processing and Feature Extraction Module for Low Cost, Portable Sensorimotor Rhythm Brain Computer Interface” – **Amelia Solon, Colleen O’Malley, and Aadarsh Viswanathan** / Advisor: **John Kounios**
- ◆ Co-Runner Up Team 2: “A 3D Printing Manufacturing Process to Produce Customized Joysticks: Enabling Wheelchair Mobility for Individuals with Impaired Dexterity” – **Jacqueline Gerhart, Claudia Gutierrez, and Meaghan Paulosky** / Advisor: **Fred Allen**

Student Recognition and Certificate of Appreciation

Work Study Students

Denariel A. Benn
Tianna T. Bennett
Christopher S. Ehler
Christina M. Furia
Timothy N. Hoang
Kostantinos Vrontis

Student Ambassadors

Timothy N. Hoang
Tianna T. Bennett

Peer Mentors

Natassia Aravind
Enis Banaj
Timothy N. Hoang

Healthcare Innovation Week (HIW) Student Organizers

Bhavit Histesh Vora
Austin Sacks

Acknowledgement of “Behind Every Graduate” Nomination and Awardee

Malena Williams – Nominated Mr. Matthew Anticole, who received the Harold W. Pote “Behind Every Graduate” Award for Excellence in Secondary School Teaching for being an outstanding teacher and influential person in Malena’s professional development.

In Memorium

H. H. Sun (speech by Banu Onaral)

STUDENT ACCOMPLISHMENTS AND HIGHLIGHTS (please see program booklet)

FACULTY AND STAFF ACCOMPLISHMENTS AND HIGHLIGHTS (please see program booklet)

PRESENTATION OF GRADUATING STUDENTS

REMARKS BY GRADUATING STUDENTS

- ◆ Undergraduate Student Speaker – **Alex Valiga**
- ◆ Graduate Student Speakers – **Raha Dastgheyb** and **Ramalingam Venkat Kalyana Sundaram**

CLOSING REMARKS by **Fred Allen** and **Margaret Wheatley**

GRADUATING CLASS OF 2015

Undergraduate Students BS in Biomedical Engineering

Alicia Marie Abraczinskas
 Ian Scott Adam
 Rohan Sagar Agarwal
 Waad Eidhah Alghuraybi
 Natassia Suresh Aravind
 Christina M. Arnholt
 Enis Banaj
 Geoffrey M. Barrett
 Denariel A. Benn
 Tianna T. Bennett
 Timothy J. Bertone
 Khyati Bhayana
 Jillian M. Born
 Amanda Margaret Busch
 Michael Warren Chang
 Frank Chang
 Sonam H. Chheda
 Stephanie M. Cicalese
 Joshua Kyle Cige
 Jacob Allen Clouse
 Juli Como
 Krishna D. Dalal
 Kevin Daniel Davis
 Mitchell Lennox De Snoo
 Oswald Stanley Dembowski
 Matthew Francis Desimone
 Kristine Adelina Dickinson
 Christopher J. D'Souza
 Jhan-Duc Duclos
 Tigran J. Edindjiklian
 Christopher Stewart Ehler
 Justin M. Elfman

Kyle Dunham Fennelly
 Christina Maria Furia
 Carolyn M. Gamble
 Taylor Alexandra Garen
 Jacqueline Grace Gerhart
 Nicholas V. Grzeczowski
 Helen Carmel Guez
 Claudia Natalia Gutierrez
 Timothy Nguyen Hoang
 Courtney M. Houtsma
 Derek Doromal Jacob
 Sakina M. Kanji
 Ian Andrew Kennedy
 Hannah D. Kollar
 Alexander Adam Koszycki
 Kendra Ann Krentz
 Nathan Alexander Lear
 Richard S. Lee
 Patrick John Lenahen
 Shaun M. Lessik
 Megan Kathleen Levis
 Michael Steven Lucas
 Nathaniel H. Maor
 Neil Devang Marfatia
 Asavari Mehta
 Michael C. Meyers
 Laurene T. Milan
 Rania M. Mina
 Emily M. Mirizio
 Karmini Mondal
 Jennifer J. Muller
 Patrick T. Murray

GRADUATING CLASS OF 2015

Undergraduate Students BS in Biomedical Engineering

Ryan Massino Norville
Erin Michelle O'Brien
Colleen Irene O'Malley
Diane E. Osborne
Averie Marie Palovcak
Mohil M. Parakhiya
Jaap Piyush Patel
Dev K. Patel
Meaghan H. Paulosky
Michael Quoc Phan
Jonathan Kiet Phung
Mitun Bharat Pragji
Arvind Radhakrishnan
Suryalekshmy M. Rajasimhan
Neharika Ramani
Derek Matthew Rau
Ashley B. Rodriguez
Samuel J. Rozans
Robert R. Ryan
Jamie Elise Schairer
Sonia S. Selvan

Alex Michael Sevit
Vishal Shah
Rebecca Sheridan
Amelia J. Solon
Dominic Scott Strohmeier
Mi Que Ta
Alexander Daniel Thoele
Alexander Andrew Valiga
Kyle Joseph Van Leer
Aadarsh Subramaniam Viswanathan
Bhavit Hitesh Vora
Drishty P. Vora
Konstantinos Vrontis
Mohammed A. Wali
Malena Alison Williams
Brian C. Wise
Rebecca Lynn Wright
Kayla J. Wrobletsky
Stephen G. Zachariah
Zhelu Zheng

GRADUATING CLASS OF 2015

Graduate Students MS in Biomedical Science

Andrew J. Abbate
Cassandra J. Brown
Chad Marcus Dziak
Ashley Harvard
Tahlar McIntosh

Rachel E. Nicoletto
John Theodore Rozolis
Zachary Joseph Brett Stombaugh

MS in Biomedical Engineering

Ian Scott Adam
Pranita Sanjay Agashe
Steven A. Archer
Christina M. Arnholt
Kush Arora
Apoorva Babu
Bartholomew J. Bacak
Enis Banaj
Timothy J. Bertone
Kevin M. Bowens
Rakhi Satish Chadha
Michael Warren Chang
Frank Chang
Jacob Allen Clouse
Thomas Laurence Cronin
Matthew Francis Desimone
Kristine Adelina Dickinson
John Peter Dougherty
Neal K. Dube
Jhan-Duc Duclos
Elizabeth Anne Ferro
Christina Maria Furia
Taylor Alexandra Garen
Jacqueline Grace Gerhart
Nicholas V. Grzeczowski
Claudia Natalia Gutierrez
Prasannaah Hadagali
Richard Steven Hanna
Andrew J. Horvat
Pablo Shao Jie Huang Zhang
Gagan Kapoor
Ian Andrew Kennedy
Alexander Adam Koszycki
Kyle W. Kramer
Kendra Ann Krentz
Guru Prasad Krishnamoorthy
Daniel Kritzer
Nathan Alexander Lear
Patrick John Lenahan
Michael Steven Lucas
Tianzhu Ma
Nathaniel H. Maor
Brandon Marcinkiewicz

Asavari Mehta
Justin D. Melunis
Michael C. Meyers
Minakshi Mohanty
Jayet Moon
Patrick T. Murray
Sumati Girish Nadkarni
Hansa Narayan
Sina Nassiri
Erin Michelle O'Brien
Chinmai Parikh
Sin Park
Paul Partyka
Sai S. Patkar
Yu Peng
Jonathan Kiet Phung
Neharika Ramani
Derek Matthew Rau
Robert R. Ryan
Aamir Farouk Sait
Alex Michael Sevit
Rebecca Sheridan
Michael David Sinisi
Janani Sivasankar Babu
Amelia J. Solon
Shweta Surana
Silpa Tavanati
Hansini Rakesh Upadhyay
Roshan Reddy Upendra
Kyle Joseph Van Leer
Dharma Teja Varapula
Sai Y. Veruva
Bhavith Hitesh Vora
Konstantinos Vrontis
Mohammed A. Wai
Lauren A. Waltz
Chao Wang
Malena Alison Williams
Johnathan P. Womack
Rebecca Lynn Wright
Kayla J. Wroblesky
Yiqian Zhou

GRADUATING CLASS OF 2015

Graduate Students
PhD in Biomedical Science

Latifa Fatima Jackson

PhD in Biomedical Engineering

Christopher Richard Bawiec

Adam Charles Canver

Raha Maryam Dastgheyb

Valgerdur Gudrun Halldorsdottir

Ramalingam Venkat Kalyana Sundaram

Suganya Karunakaran

Patrick L. Kirby

Anitha Manohar

Emily A. Mathews

Marissa Powers

Erin Renée Reichenberger

Jasmine Saini

Youhan Sunny

Ceylan E. Tanes

Nutte (Tarn) Teraphongphom

Zhiling Zhang

Yiqian Zhou

STUDENT ACCOMPLISHMENTS AND HIGHLIGHTS

BIOMED Students Win Poster Awards in Three Categories at Drexel Research Day 2015

◆ **COMPUTATION AND BIO-MODELING – GRADUATE RESEARCH**

“Prokaryotic Nucleotide Composition Is Shaped by Both Phylogeny and the Environment” – Erin Reichenberger

Co-authors: Ruth Hershberg, Gail Rosen

(Advisors: U. Hershberg, G. Rosen)

◆ **BIO AND BIOMEDICAL – UNDERGRADUATE RESEARCH**

“PEGylated Ultrasound Contrast Agents for Drug Delivery to Pancreatic Tumor Cells” – Stephen Zachariah

Co-authors: Averie Palovcak, Jaap Patel, Timothy Hoang, Rebecca Sheridan, Lauren Jablonowski

(Advisor: M. Wheatley)

◆ **TRANSLATIONAL AND CLINICAL – UNDERGRADUATE RESEARCH**

“DNA Isolation for Performance at Point-of-Care Using a Smartphone Enabled Real-Time Polymerase Chain Reaction (RT-PCR)” – Christopher Cox

Co-authors: Sandra Wolf, Sarah E. Foster, Maria Chacon-Heszele, Jesse vanWestrienen, Jessa Tunacao (Advisors: S. Wolf, S.E. Foster, M. Chacon-Heszele)

BIOMED Students Receive 2015 Graduate Student Day Awards

The Office of Graduate Studies' Graduate Student Research Excellence Committee recognizes the following BIOMED graduate students for their outstanding contributions to the Drexel community:

◆ **Lauren Jablonowski** (Advisor: M. Wheatley): Teaching Excellence Award

◆ **Yemin Lan** (Advisors: G. Rosen and A. Kriete): Highly Commended – Research Excellence Award (Doctoral)

Ian Adam, Nathan Lear, Michael Lucas, Derek Rau, and Bhavit Vora Win 1st Place in the 2015 BIOMED Senior Design Competition

Ian Adam, Nathan Lear, Michael Lucas, Derek Rau, and Bhavit Vora, all BS/MS students in BIOMED (Advisors: Drs. Fred Allen, John Fiadjoe, and Lin Han), won 1st Place in the 2015 School of Biomedical Engineering, Science and Health Systems ('BIOMED') Senior Design Competition for their project titled “Continuous Monitoring of Patient Airway for Laryngospasm.” The two Runner Up teams are listed below:

Runner Up Team 1: “Online Pre-Processing and Feature Extraction Module for Low Cost, Portable Sensorimotor Rhythm Brain Computer Interface”

Members: Amelia Solon, Colleen O'Malley, and Aadarsh Viswanathan

Advisor: Dr. John Kounios

Co-Runner Up Team 2: “A 3D Printing Manufacturing Process to Produce Customized Joysticks: Enabling Wheelchair Mobility for Individuals with Impaired Dexterity”

Members: Jacqueline Gerhart, Claudia Gutierrez, and Meaghan Paulosky

Advisor: Dr. Fred Allen

Angeline Aguinaldo and Claudia Gutierrez Receive 2015 Student Life Awards

Student Affairs and the Undergraduate Student Government Association collaborate to recognize and reward Drexel community members who have made significant contributions to student life at the University and in the surrounding community. Student Life Awards recipients for 2015 from the BIOMED community include:

◆ **Charles E. Etting Award:** Angeline Aguinaldo

◆ **Dean J. Peterson Ryder Award for Senior Women:** Claudia Gutierrez

Chris Bawiec Receives a Whitaker Postdoctoral Fellowship To Do Research at the Laboratory of Therapeutic Applications of Ultrasound in Lyon, France

Chris Bawiec, PhD student in BIOMED (Advisor: P. Lewin), received a 2-year Whitaker Postdoctoral Fellowship starting in September 2015 at the Université Claude Bernard in Lyon, France. The research will be performed in the Laboratory of Therapeutic Applications of Ultrasound (LabTAU), a part of the French National Institute of Health and Medical Research (INSERM) that employs researchers specialized in biomedical technology, acoustics and ultrasonics. Chris will participate in ultrasound research related to dual-mode capacitive Micromachined Ultrasonic Transducers (cMUT) for the development of image-guided ultrasound focal therapies of localized tumors.

Basak Doyran Presents a Conference Abstract as a “Spotlight Podium Session” at the Orthopaedic Research Society (ORS) Annual Meeting

Basak Doyran, PhD candidate in BIOMED (Advisor: L. Han), presented a conference abstract titled “Nanomechanical Symptoms in Cartilage Precede Histological Osteoarthritis Signs After the Destabilization of Medial Meniscus in Mice” as a “Spotlight Podium Session” presentation at the Orthopaedic Research Society (ORS) Annual Meeting.

Nicole Ferraro Receives a National Science Foundation (NSF) Fellowship To Attend the 14th International Summer School on Biocomplexity, Biodesign and Bioinnova

Nicole Ferraro, BS/MS student in BIOMED (Advisor: K. Spiller), received an NSF Fellowship to attend the 14th International Summer School on Biocomplexity, Biodesign and Bioinnova: From Gene to System in Izmir, Turkey.

Jacqueline Gerhart, Claudia Gutierrez, Meaghan Paulosky, and Dan Resnic Win 3rd Place in the Senior Design Competition at the 41st Annual Northeast Bioengineering (NEBEC) Conference

Jacqueline Gerhart, Claudia Gutierrez (both BS/MS students in BIOMED), Meaghan Paulosky (undergraduate student in BIOMED), and Dan Resnic (MEM) won 3rd place in the Senior Design Competition at the 41st Annual Northeast Bioengineering Conference (NEBEC) for the poster titled “A 3D Printing Manufacturing Process to Produce Customized Joysticks: Enabling Wheelchair Mobility for Individuals with Impaired Dexterity” (Advisor: Fred Allen / Sponsor: Inglis House).

Pamela Graney Receives a 2015 Professor Rahamimoff Travel Grant for Young Scientists of the US–Israel Binational Science Foundation and a Louis and Bessie Stein Family Fellowship for Travel to the Technion Israel Institute of Technology

Pamela Graney, PhD student in BIOMED (Advisor: K. Spiller), received a 2015 Professor Rahamimoff Travel Grant for Young Scientists from the US–Israel Binational Science Foundation and a Louis and Bessie Stein Fellowship to support her research on the project titled “Modulating Macrophage Behavior in Blood Vessel Development and Maintenance” in the lab of Dr. Shulamit Levenberg at the Technion Israel Institute of Technology in Haifa, Israel.

◆ Pamela received a 2015 Koerner Family Award for academic merit and her project titled “Understanding and Controlling Macrophage Behavior in Tissue Regeneration.”

Lauren Jablonowski Receives a 2015 Allied Scientist Grant for Her Drug Loaded Ultrasound Contrast Agent Project

Lauren Jablonowski, PhD student in BIOMED (Advisor: M. Wheatley), received a 2015 Society of Interventional Radiology Foundation (SIRF) Allied Scientist Grant for the project titled “STEALTH Drug Loaded Ultrasound Contrast Agent for Ultrasound Triggered Treatment of Hepatocellular Carcinoma.”

Debra Klopfenstein Wins 1st Place in the Graduate Student Awards Category at the 2014 Sidney Kimmel Cancer Center Consortium Poster Competition

Debra Klopfenstein, PhD candidate in BIOMED (Advisor: A. Tozeren), won 1st Place in the Graduate Student Awards Category at the 2014 Sidney Kimmel Cancer Center (SKCC) Consortium Poster Session for the poster titled “Hotspots for Genes Related to 14 Different Cancers.”

Alex Koszycki Receives a Drexel University 2015 Cooperative Education Award

Alex Koszycki, BS/MS student in BIOMED, received a Drexel University 2015 Cooperative Education Award for fulfilling the goals and ideals of cooperative education.

Michael Lucas Receives a 2014 Merck Engineering and Technology Fellowship

Michael Lucas, undergraduate student in BIOMED, received a Merck Engineering and Technology Fellowship in acknowledgement of his academic achievements as a student and of the contributions he made to Merck while there in his co-op position.

Daniel MacDonald Receives the 2014 Heinz–Mittelmeier Research Award from the German Congress of Orthopaedics and Trauma Surgery

Daniel MacDonald, PhD candidate in BIOMED (Advisor: S. Kurtz), received the 2014 Heinz–Mittelmeier Research Award from the German Congress of Orthopaedics and Trauma Surgery. Daniel traveled to Berlin, Germany to receive his award and to present an abstract of his research.

Sina Nassiri Wins the Audience Award at the 2015 Society for Biomaterials (SFB) Business Plan Competition

Sina Nassiri, PhD student in BIOMED (Advisor: K. Spiller), won the Audience Award at the 2015 Society for Biomaterials (SFB) Business Plan Competition for the plan titled “MacroTheranostics: A Macrophage-based Therapeutic and Diagnostic Wound Care Company” (Co-author: K. Spiller).

- ◆ Received a Wound Healing Society (WHS) travel scholarship for notable WHS Young Investigator Research. His abstract titled “A Macrophage Phenotype Related Expression Ratio Predicts Healing Outcome in Human Chronic Diabetic Foot Ulcers: A Preliminary Study” was selected as one of the highest-ranking submissions the WHS reviewed.
- ◆ Published the paper titled “Affinity-based Controlled Release Scaffolds for Modulation of Macrophage Phenotype in Chronic Diabetic Ulcers” (Co-author: K. Spiller) that was nominated as an outstanding contribution to the SFB 2015 Annual Meeting and received an Honorable Mention Student Travel Achievement Recognition (STAR) certificate.

Erin Reichenberger Gives a Talk at the 7th International Conference on Bioinformatics, Biocomputational Systems and Biotechnologies (BIOTECHNO 2015)

Erin Reichenberger, PhD student in BIOMED (Advisor: U. Hershberg), gave a talk titled “Prokaryotes, Metagenomics, and GC-Content 21” (Authors: E. Reichenberger, G. Rosen, U. Hershberg, and R. Hershberg) at the 7th International Conference on Bioinformatics, Biocomputational Systems and Biotechnologies (BIOTECHNO 2015). She received a Drexel International Travel Award to attend the meeting.

Gregory Schwartz Gives a Lecture and Poster Presentation at the Keystone Symposia on Molecular and Cellular Biology

Gregory Schwartz, PhD student in BIOMED (Advisor: U. Hershberg), gave a lecture and poster presentation titled “Conserved Amino Acid Diversity in B-Cell Repertoires Connects Between Selection at the Germline and Somatic Levels” at the Keystone Symposia on Molecular and Cellular Biology: The Golden Anniversary of B-Cell Discovery. He received a Drexel International Travel Award to attend this meeting.

- ◆ Gave an invited talk titled “Amino Acid Diversity Pinpoints Immune Repertoire Evolution” at the annual Alumni Lecture of the Mathematics Colloquium of his alma mater, Franklin and Marshall University.

Arpit Shah Participates as a Mentor in the Research Internships in Science and Engineering (RISE) Program for Summer Researchers

Arpit Shah, PhD candidate in BIOMED (Advisor: A. Shieh), participated as a mentor in the RISE Program for Summer Researchers from the Community College of Philadelphia. This diverse group of students conducted research with Drexel faculty members and shared their work with members of the Drexel community.

Julie Speer Receives a 2015 International Student Week in Ilmenau (ISWI) Travel Fellowship

Julie Speer, undergraduate student in BIOMED, received a travel fellowship to attend the 2015 International Student Week in Ilmenau (ISWI) at Technische University in Ilmenau, Germany.

Youhan Sunny Is Featured in a Semi-Finalist Awarded LabTV Video

Youhan Sunny, PhD candidate in BIOMED (Advisor: P. Lewin), was profiled in a LabTV video produced by Corrine McAndrews, an undergraduate film and video major in the Antoinette Westphal College of Media Arts and Design (CoMAD). Corrine was honored for a role model video of Youhan in the research lab of Dr. Peter Lewin, Richard B. Beard Professor of Biomedical and Electrical and Computer Engineering, and Director of the Biomedical Ultrasound Research and Education Center.

Nutte Tarn Teraphongphom Wins 3rd Place in Poster Session II at the 41st Annual Northeast Bioengineering (NEBEC) Conference

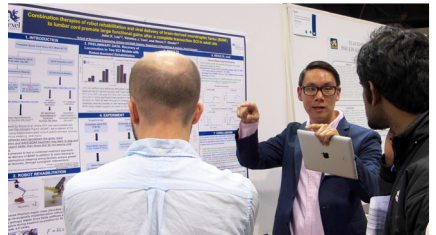
Nutte Tarn Teraphongphom, PhD student in BIOMED (Advisor: M. Wheatley), won 3rd Place in Poster Session II at the 41st Annual Northeast Bioengineering Conference (NEBEC) for the poster titled "Multimodal Imaging: Nanocrystal Loaded PLA Shelled Contrast Agents" (Co-authors: P. Chhour, J. Eisenbrey, P. Naha, W. Witschey, D. Cormode, and M. Wheatley).

Malena Williams Nominates a Recipient of the Harold W. Pote "Behind Every Graduate" Award for Excellence in Secondary School Teaching

Malena Williams, BS/MS student in BIOMED, nominated Mr. Matthew Anticole, Physics Teacher at Norwin High School in North Huntingdon, PA, who received the Harold W. Pote "Behind Every Graduate" Award for Excellence in Secondary School Teaching. The award acknowledges outstanding high school teachers who provided a new perspective or inspired a student to consider a certain major or career. Malena and Mr. Anticole will be honored at Drexel's Commencement Day Ceremonies.

Claire Withere! Receives a Society for Biomaterials (SBF) Student Travel Achievement Recognition (STAR) Award

Claire Withere!, PhD candidate in BIOMED (Advisor: K. Spiller), received a Society for Biomaterials (SBF) Student Travel Achievement Recognition (STAR) Award in recognition of her research excellence.





HEALTHCARE INNOVATION WEEK MAY 18TH-21ST

MONDAY 5/18	TUESDAY 5/19	WEDNESDAY 5/20	THURSDAY 5/21
8:00am-10:00pm Biomed Senior Design Presentations Resource 109	9:00am-10:00pm Biomed Senior Design Presentations Resource 109	11:00am-2:00pm Healthcare Innovation Industry Expo Resource 3rd Floor Atrium	6:30pm-8:30pm Research and Design Symposium Resource 1st Floor Lobby
5:00pm-8:00pm Healthcare Industry Panel "Heaven Building 101"	5:30pm-7:00pm Healthcare and Biotechnology Seminar Innovation 125	6:00pm-8:00pm SWE: Inviting Nature Resource Michael Auditorium	6:30pm-8:00pm Family Fun! BMU Students vs Faculty Resource Michael Auditorium
8:00am-9:00pm			



FACULTY AND STAFF ACCOMPLISHMENTS AND HIGHLIGHTS

BIOMED Faculty Receive 2015 Commonwealth Universal Research Enhancement (CURE) Grant Awards

The following faculty in BIOMED are 2015 Commonwealth Universal Research Enhancement (CURE) grant awardees:

- ◆ Dr. Uri Hershberg, assistant professor, for the project titled “Impaired Immune Priming and Diminished B-cell Repertoires in Aging Models of Clostridium-Difficile Infection and Vaccination” (Co-I: M. Kutzler – CoM).
- ◆ Dr. Meltem Izzetoglu, associate research professor, for the project titled “Non-invasive Monitoring of Cerebral Edema in Real-Time Using a Novel Near Infrared Spectroscopy Monitoring System” (Co-I’s: S. Malaeb and J. McGowan – CoM).
- ◆ Drs. Amy Throckmorton, associate professor, and Steven Chopski, post-doctoral fellow, for the project titled “Mechanical Circulatory Assistance for Congenital Heart Disease: Biologically-inspired Heart Pumps” (Co-I’s: J.Y. Kresh and G. Laub – CoM).

Dr. Fred Allen Receives the 2014 Drexel University President’s Award for Intercultural Engagement and Diversity

Dr. Fred Allen, assistant professor and associate director for undergraduate studies in BIOMED, received the 2014 President’s Award for Intercultural Engagement and Diversity and was recognized for his above-and-beyond dedication at the 2014 President’s Awards Ceremony.

- ◆ Guest speaker at the National Society of Black Engineers (NSBE) end of the year banquet.

Dr. Hasan Ayaz Receives an Intel Labs Award for Neuroergonomic Research

Dr. Hasan Ayaz, assistant research professor in BIOMED, received a \$155K grant from the Intel Corporation to investigate the use of functional near infrared spectroscopy (fNIRS) in user experience and human machine interaction.

- ◆ Received with Jennifer Nasser (CNHP–PI) a 1-year \$75K grant from the Drexel University CoM Clinical and Translational Research Institute for the project titled “fNIRS Assessment of Dorsolateral and Dorsomedial Prefrontal Cortex in Response to Food as a Marker for ‘Loss of Control’.”
- ◆ Received with Terry Heiman-Patterson (CoM – PI) a 1-year \$75K grant from the Drexel University CoM Clinical and Translational Research Institute for the project titled “Use of fNIR to Detect Cognitive Changes in ALS: Cross Section and Longitudinal Studies.”
- ◆ Gave a keynote speech and a keynote presentation titled “Expanding Vistas for fNIRS: Applications from Aerospace to Clinical Solutions” at the 2nd Annual French Community for Functional Near Infrared Spectroscopy (2fNIRS) Conference.
- ◆ Published the paper titled “Wearable Functional Near Infrared Spectroscopy (fNIRS) and Transcranial Direct Current Stimulation (tDCS): Expanding Vistas for Neurocognitive Augmentation” (Co-authors: R. McKendrick and R. Parasuraman) in the journal *Frontiers in Systems Neuroscience*.
- ◆ Joined the *International Journal of Computational Intelligence and Neuroscience* as an associate editor and the *Frontiers in Human Neuroscience Journal* as a guest associate editor.

Dr. Sriram Balasubramanian Receives a Scoliosis Research Society Grant for His Thoracolumbar Spine and Ribs Project

Dr. Sriram Balasubramanian, assistant professor in BIOMED, received a 3-year \$50K Scoliosis Research Society grant for the project titled “Structure and Growth of the Thoracolumbar Spine and Ribs in Normative Pediatric and AIS Subjects – A Comprehensive Multi-Center and Multi-Modal Validation Study.”

Drs. Ken Barbee and Karen Moxon Are Elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows

Drs. Ken Barbee, professor and interim director, and Karen Moxon, professor and associate director for research, both in BIOMED, were elected to the College of Fellows of the American Institute for Medical and Biological Engineering (AIMBE).

Dr. Steven Chopski Receives an American Heart Association (AHA) Postdoctoral Fellowship for His PC-MRI Studies of Fontan Physiology Project

Dr. Steven Chopski, post doctoral fellow in BIOMED (Advisor: A. Throckmorton), received a 2-year \$89K American Heart Association (AHA) Postdoctoral Fellowship for the project titled "PC-MRI Studies of Fontan Physiology with Mechanical Circulatory Support." This research supports the mission of the AHA by advancing new knowledge and insight in the field of congenital heart disease, clotting risk in medical devices, and blood pump technology.

Dr. Johann deSa and Colleagues Receive a Glycotest, Inc. Grant for Their Development of a Multiplexed Assay for the Detection of Hepatocellular Carcinoma Project

Drs. Johann deSa, research assistant professor in BIOMED (Co-I), and Timothy Block, professor and director, Drexel Institute for Biotechnology and Virology Research (PI), and colleagues received a 1-year \$185K grant from Glycotest, Inc. for their project titled "Development of a Multiplexed Assay for the Detection of Hepatocellular Carcinoma."

Dr. Lin Han and Colleagues Receive an NIH R21 Grant for Their Cartilage Nanomechanics and Osteoarthritis Project

Dr. Lin Han, assistant professor in BIOMED, and colleagues received a 2-year \$357.5K NIH R21 grant for the project titled "Roles of Decorin and Biglycan in Cartilage Nanomechanics and Osteoarthritis."

- ◆ Received with colleagues a 2-year \$87.7K Swiss AO (Arbeitsgemeinschaft für Osteosynthesefragen) foundation grant for their project titled "Architecturally Controlled Synthetic Bone Substitutes for Bone Regeneration Under Load."

Dr. Uri Hershberg Organizes a System Immunology and Modeling of B-Cell Repertoires Workshop at the Keystone Symposia on Molecular and Cellular Biology

Dr. Uri Hershberg, assistant professor in BIOMED, organized the workshop titled "System Immunology and Modeling of B-Cell Repertoires" at the Keystone Symposia on Molecular and Cellular Biology: The Golden Anniversary of B-Cell Discovery. He received a Drexel International Travel Award to attend this meeting.

- ◆ Selected to organize a 3-month research group on "Stochasticity and Control in the Dynamics and Diversity of Immune Repertoires: An Example of Multi-Cellular Cooperation" at the Hebrew University Institute of Advanced Studies.
- ◆ Invited to participate in the "Community Meeting on Analysis, Management, and Sharing of Antigen Receptor Repertoire Sequence Data" at the Center for Interdisciplinary Research in the Mathematical and Computational Sciences (IRMACS) at Simon Fraser University.
- ◆ Published several papers with his students Erin Reichenberger, Jasmine Saini, and Mesut Yucel, including the following:
 - ◇ "Prokaryotic Nucleotide Composition Is Shaped by Both Phylogeny and the Environment" (Authors: Reichenberger, E.R., Rosen, G.L., Hershberg, U., Hershberg, R.) – Genome Biology and Evolution.
 - ◇ "B-Cell Variable Genes Have Evolved Their Codon Usage to Focus the Targeted Patterns of Somatic Mutation on the Complementarity Determining Regions (CDR)" (Authors: Saini, J. and Hershberg, U.) – Molecular Immunology.
 - ◇ "Viral CD8 T-Cell Epitope Nucleotide Composition Shows Evidence of Short- and Long-Term Evolutionary Strategies" (Authors: Y. Maman, U. Hershberg, Y. Louzoun) – Immunogenetics.

Drs. Kurtulus Izzetoglu, Hasan Ayaz, and Colleagues Are Selected to Advise the FAA Center of Excellence for Unmanned Aircraft Systems (COE UAS) on Rules for the Commercial Operation of Unmanned Aerial Vehicles

Drs. Kurtulus Izzetoglu, associate research professor (PI), Hasan Ayaz, assistant research professor (Co-PI), both in BIOMED, Patrick Craven (CCI – Co-PI), and Ellen Bass (CC) are among a group of experts of the Mississippi State University (MSU)-led Alliance for System Safety of Unmanned Aircraft Systems Through Research Excellence (ASSURE) and key industry partners and government agencies selected to advise the FAA Center of Excellence for Unmanned Aircraft Systems (COE UAS) on rules for the commercial operation of unmanned aerial vehicles as part of a 5-year \$5M research consortium.

- ◆ Drs. Izzetoglu (PI), Hasan Ayaz (Co-PI), and Patrick Craven (CCI – Co-PI) received a 7-month \$150K Lockheed Martin Corporation grant for the project titled “Investigate the Role of Neurotechnology to Improve Human Performance.”
- ◆ Drs. Izzetoglu (PI), Hasan Ayaz (Co-PI), and colleagues from the Penn State Milton S. Hershey Medical Center received a 3-year \$115K NIH grant for the project titled “Prescription Opioid Dependence: Physiology, Emotion, and Treatment Outcome.”

Drs. Meltem Izzetoglu, Kurtulus Izzetoglu, and Colleagues Receive a Yeshiva University Albert Einstein College of Medicine Grant for Their Biological and Neural Mechanisms of Falls Project

Drs. Meltem Izzetoglu (PI) and Kurtulus Izzetoglu (Co-I), both associate research professors in BIOMED, and colleagues received a 5-year \$68K grant from the Albert Einstein College of Medicine of Yeshiva University for their project titled “Biological and Neural Mechanisms of Falls.”

Dr. Joshua Jacobs and Colleagues Receive a Multi-Site Grant for a Study on Brain Injury Recovery

Dr. Joshua Jacobs, affiliate professor in BIOMED and assistant professor at Columbia University, joined a 4-year \$22.5M DARPA funded project titled “Restoring Active Memory” to explore the use of brain stimulation to help TBI patients recover memories and cognitive abilities.

- ◆ Received with colleagues from the University of Pennsylvania a 5-year \$1.26M DARPA grant for the project titled “Memory Enhancement with Modeling, Electrophysiology, and Stimulation (MEMES).”

Dr. Dov Jaron Is Featured in a Profile in the Proceedings of the IEEE on His Role in the Evolution of the Field of Biomedical Engineering

Dr. Dov Jaron, Calhoun Distinguished Professor of Engineering in Medicine in BIOMED, was featured in a profile in the Proceedings of the IEEE titled “Dov Jaron and the Origins of Biomedical Engineering.” The profile highlighted Dr. Jaron’s pioneering role in the evolution of the field of biomedical engineering and his efforts to help bring the profession to the interdisciplinary global discipline it is today.

Dr. Yasha Kresh and Colleagues Publish a Feature Cover Article in the IEEE Engineering in Medicine and Biology Society (EMBS) Transactions on Biomedical Engineering

Dr. Yasha Kresh, professor of cardiothoracic surgery and medicine (cardiology) and research director in CoM and affiliate professor in BIOMED, and colleagues, published a featured cover article titled “Mechanically Stimulated Contraction of Engineered Cardiac Constructs Using a Microcantilever” (Co-authors: P.A. Gale, F. Byfield, and C.S. Chen) in the IEEE EMBS Transactions on Biomedical Engineering.

Dr. Andres Kriete Gives an Invited Talk at the Systems Biology of Aging Workshop

Dr. Andres Kriete, associate professor in BIOMED, gave an invited talk titled “Robustness and Aging - The Control Gap” at the Systems Biology of Aging Workshop in Jena, Germany.

Dr. Peter Lewin Is Elected as the Editor-in-Chief-Elect of the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control

Dr. Peter A. Lewin, Richard B. Beard Professor of Biomedical and Electrical and Computer Engineering and Director of the Biomedical Ultrasound Research and Education Center, was elected as the Editor-in-Chief-Elect of the IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control

- ◆ Invited with colleagues to present their paper titled “20 kHz Ultrasound Assisted Treatment of Chronic Wounds with Concurrent Optic Monitoring” (Co-authors: C.R. Bawiec, Y. Sunny, J.A. Samuels, M.S. Weingarten, L.A. Zubkov, D.J. Margolis, and M.T. Neidrauer) at the SPIE DSS (Defense, Security and Sensing) Conference on Micro- and Nanotechnology Sensors, Systems, and Applications / Low-Intensity Energy Delivery for Biomodulation I. He also gave a talk titled “Enhanced Wound Healing through Low Frequency Ultrasound” at the SPIE DSS International Society for Optics and Photonics Conference.
- ◆ Published with colleagues the paper titled “Ultrasound-induced Modulation of Cardiac Rhythm in Neonatal Rat Ventricular Cardiomyocytes” in the Journal of Applied Physiology (Co-authors: A. Fleischman, C. Vecchio, Y. Sunny, C.R. Bawiec, J.Y. Kresh, A.R. Kohut).
- ◆ Published with colleagues the article titled “Ultrasound for Healing Chronic Wounds” (Co-authors: S. Nadkarni, D. Diaz, J. Samuels, C. Bawiec, Y. Sunny, M. Weingarten, L. Zubkov, D. Margolis, and M. Neidrauer) in the International Society for Optics and Photonics (SPIE) Newsroom.
- ◆ Appointed as a voting member of the FDA Medical Devices Advisory Committee.

Dr. Hualou Liang Is Appointed as a Charter Member of the IEEE Computational Intelligence Society Neural Networks Technical Committee

Dr. Hualou Liang, professor in BIOMED, was appointed as a voting member of the IEEE Computational Intelligence Society Neural Networks Technical Committee.

- ◆ Presented a paper titled “Copula Models of Multivariate Point Process for the Analysis of Ensemble Neural Spiking Activity” at the University of Pittsburgh. The presentation was part of collaborative work with colleagues at the University of Pennsylvania and Stanford University that was recently accepted by the Journal of Neuroscience (Co-authors: M. Hu, K. Clark, X. Gong, B. Noudoost, M. Li, T. Moore).
- ◆ Gave an invited talk titled “System Identification with Mixed Discrete and Continuous Neural Signals” at the International Symposium on Computational Psychophysiology in Jinan, China.
- ◆ Gave an invited talk titled “A Copula Approach to Assessing Granger Causality” at Georgia State University.
- ◆ Gave an invited talk titled “Attentional Effects Between Single Neurons and Oscillatory Activity in the Visual Cortex” at Princeton University.

Dr. Donald McEachron Presents Two out of Five Drexel University Assessment Workshops

Dr. Donald McEachron, research professor and associate director in BIOMED, was a presenter at two of the five Drexel University 2015 Winter Term Assessment Workshops.

- ◆ Recognized by the organization “Disruptive Women in Health Care” as their January Man of the Month. Others to receive this recognition include NIH Director Francis Collins, former Apple CEO and Founder Steve Jobs, and Surgeon General C. Everett Koop.
- ◆ Featured in a DrexelNOW story about his attempt to improve on existing education app databases and establishing a contest for students to create learning or instruction technology he termed “Edumemes.”

Dr. Karen Moxon Receives an NSF Grant for Her Sources of Adaptation During BMI Control Project

Dr. Karen Moxon, professor and associate director for research in BIOMED (PI), received a 3-year \$300K NSF grant for the project titled “Sources of Adaptation During BMI Control.”

- ◆ Received a 2-year 12K euro Visiting International Professor Grant from Ruhr University in Bochum, Germany to enhance interdisciplinary research between neuroscience and engineering.
- ◆ Elected a Fellow of the American Association for the Advancement of Science (AAAS).
- ◆ Gave a plenary address titled “Role of Brain Reorganization in the Recovery of Function After SCI” at the first Annual Shriners-Temple Symposium on Neural Repair.
- ◆ Gave a keynote talk titled “Brain-machine Interfaces Beyond Neuroprosthetics” at the IEEE EMBS BRAIN Grand Challenges Conference.
- ◆ Organized a symposium titled “BMI Control of Functional Electrical Stimulation” and gave a presentation titled “Brain-machine Interfaces for Volitional Control of Hindlimbs After Spinal Cord Injury” at the 7th International IEEE EMBS Neural Engineering Conference.
- ◆ Published with Guglielmo Foffani (Hospital Nacional de Paraplégicos, Spain) the paper titled “Brain-Machine Interfaces Beyond Neuroprosthetics” in the journal *Neuron*.
- ◆ Published the paper titled “Dissociating Movement from Movement Timing in the Rat Primary Motor Cortex” (Co-authors: E. Knudsen and M. Powers) in the *Journal of Neuroscience*.

Drs. Banu Onaral, Kurtulus Izzetoglu, Hasan Ayaz, Meltem Izzetoglu, and Colleagues Receive a Department of Defense–US Marine Corps Grant for Their Integrated Infrascanner™ Project

Dr. Banu Onaral, H. H. Sun Professor in BIOMED and senior advisor to the president for Global Innovation Partnerships (PI), and Drs. Kurtulus Izzetoglu (Co-PI), Hasan Ayaz (Co-PI), and Meltem Izzetoglu (Co-PI), all associate research professors in BIOMED, received a 4-year \$1.6M sub-award from the Department of Defense–US Marine Corps for the project titled “Portable Near Infrared Field Triage and Resuscitation Aid Technology for Combat Casualty Care: Integrated Infrascanner™” to design and develop the next generation Infrascanner™ that will detect severe head injuries.

- ◆ Dr. Onaral received the Steinbright Career Development Center 2015 Cooperative Education Faculty/Advisor of the Year Award.
- ◆ Gave an invited talk on “Clinical Deployment of Functional Optical Brain Monitoring: fNIR” at Jiangsu Asialand Bio-Med Tech Co. in Changzhou, China and on “Entrepreneurship in Academia and Entrepreneurial University” at Maltepe University in Istanbul, Turkey.
- ◆ Gave the Distinguished Welcoming Address at the Center for Health Innovation Emerging Markets in Life Sciences Symposium in San Francisco, CA.
- ◆ Published with Kurtulus Izzetoglu, Hasan Ayaz, and Patricia Shewokis the article titled “Cognitive Workload and Learning Assessment During the Implementation of a Next-Generation Air Traffic Control Technology Using fNIRS” (Co-authors: J. Harrison, B. Willems, H. Sehchang, U. Ahlstrom, W. Hyun, and S.C. Bunce) in the *IEEE Transactions on Human-Machine Systems*.
- ◆ Guest of honor at a reception held by Drexel University President John Fry to celebrate Dr. Onaral’s 17 years of service as Founding Director of the School of Biomedical Engineering, Science and Health Systems.

Dr. Kambiz Pourrezaei and Colleagues Are Featured in an Exel Magazine Article on a “Smart Cup” for Monitoring the Nutritional Intake of Hospitalized Patients

Drs. Kambiz Pourrezaei, professor in BIOMED, and Rose Ann DiMaria-Ghalili (CNHP) were featured in an Exel magazine article titled “A Cup That Counts.” The article discusses how their team of interdisciplinary and transdisciplinary researchers are developing a patent-pending “Smart Cup” for monitoring the nutritional intake of hospitalized patients. Their translational collaborative research received Wallace H. Coulter Foundation funding for the project titled “Smart Cup: Development of A Device to Measure Liquid Intake.”

Drs. Wan Shih and Wei-Heng Shih Receive a Second Phase-I Small Business Technology Transfer (STTR) Grant for a Low-Cost Portable Multiplex Serum Molecular Test for HBV and HCV Detection

Drs. Wan Shih, professor in BIOMED (PI), and Wei-Heng Shih (MSE), founder and co-founder, respectively, of Lenima Field Diagnostics, received a second Phase-I \$300K Small Business Technology Transfer (STTR) grant for the project titled “A Low-Cost Portable Multiplex Serum Molecular Test for Hepatitis B Virus and Hepatitis C Virus Detection.”

- ◆ Received with W.H. Shih (PI) a 1-year \$25K CoE/CoM seed grant for the project titled “Near-infrared SnS Aqueous Quantum Dot Molecular Probes for In Vivo Imaging.”
- ◆ Developed with W.H. Shih and colleagues the technology for the iBreastExam, an intelligent hand-held breast examination device that recently received FDA class II device clearance.
- ◆ Elected a Fellow of the National Academy of Inventors (NAI).

Dr. Kara Spiller Receives an NSF Grant for a US–Australia Collaborative Research Project

Dr. Kara Spiller, assistant professor in BIOMED, received a 1-year \$45K NSF grant for the project titled “US–Australia Collaborative Research: Research Planning and Proof-of-Concept Study of Macrophage-Scaffold Interactions” to investigate the interactions between cells of the human inflammatory response with novel ceramic scaffolds developed by Dr. Hala Zreiqat of the University of Sydney.

- ◆ Published with Sina Nassiri, PhD student in BIOMED, and Drs. Issa Zakeri (SoPH) and Michael Weingarten (CoM) the paper titled “Relative Expression of Pro-inflammatory and Anti-inflammatory Genes Reveals Differences Between Healing and Non-healing Human Chronic Diabetic Foot Ulcers” in the Journal of Investigative Dermatology. The paper was highlighted in an “Editor’s Choice” article in Science in Translational Medicine titled “Predicting the Road Not Taken.”
- ◆ Organized and led Drexel’s first International Symposium on Engineering Complex Tissues, featuring talks by top national and international researchers and a poster competition.
- ◆ Received a 2015 Wound Healing Society Junior Faculty Travel Award.
- ◆ Received a 2015 Drexel University Faculty Mentor Award.
- ◆ Selected for a second year to author commentaries summarizing important articles for the journal Science Translational Medicine.

Drs. Amy Throckmorton, Ken Barbee, Kara Spiller, and Colleagues Receive Funding for a Unique Collaboration That Leads to “Dream Teams” To Advance Pediatric Research

Drs. Amy Throckmorton, associate professor and director of the BioCirc Research Laboratory; Ken Barbee, professor and interim director; and Kara Spiller, assistant professor, all in BIOMED, are members of two ‘dream team’ projects to address unmet pediatric medical needs as part of a research partnership with The Children’s Hospital of Philadelphia (CHOP), Drexel University, and The Hebrew University of Jerusalem. The projects each received \$250K over two years in institutional funding. Dr. Throckmorton (PI) is investigating for the “Giving Kids a Chance” project a new intravascular blood pump for pediatric patients with congenital heart disease (CHD), while Drs. Barbee and Spiller are members of a CHOP-based project (R.J. Levy – PI) titled “Pediatric Transcatheter Valve Replacements: Preventing Device Failure due to Structural Degeneration.”

- ◆ Dr. Throckmorton will give an invited talk titled “Mechanical Circulatory Assistance of the Fontan Physiology” at the 11th International Conference on Pediatric Mechanical Circulatory Support Systems and Pediatric Cardiopulmonary Perfusion.

Dr. Aydin Tozeren Gives an Invited Talk on Hotspots for Schizophrenia and Other Neuro Diseases in the Human Genome at the Lieber Institute for Brain Development

Dr. Aydin Tozeren, Distinguished Professor and Director, Center for Integrated Bioinformatics, gave an invited talk titled “Hotspots for Schizophrenia and Other Neuro Diseases in the Human Genome” at the Lieber Institute for Brain Development.

Dr. Margaret Wheatley Publishes a Paper on Ultrasound Sensitive Oxygen Carrier Research in the International Journal of Pharmaceutics

Dr. Margaret Wheatley, John M. Reid Professor in BIOMED, published the paper titled "Development of an Ultrasound Sensitive Oxygen Carrier for Oxygen Delivery to Hypoxic Tissue" (Co-authors: J.R. Eisenbrey, L. Albala, M.R. Kramer, N. Daroshefski, D. Brown, J.B. Liu, M. Stanczak, P. O'Kane, and F. Forsberg) in the International Journal of Pharmaceutics.

- ◆ Published the paper titled "A Multifactorial Analysis of Complex Pharmaceutical Platforms: An Application of Design of Experiments (DoE) to Targetable Polyacrylamide and Ultrasound Contrast Agents" (Co-authors: M. Bloch, R. Kenett, L. Jablonowski, E. Yavin, A. Rubinstein) in the Journal of Polymers for Advanced Technologies.
- ◆ Published the paper titled "Multi-Modal Detection of Colon Malignancy by NIR-Tagged Recognition Polymers and Ultrasound Contrast Agents" (Co-authors: M. Bloch, L. Jablonowski, E. Yavin, D. Moradov, I. Djavsarov, A. Nyska, A. Rubinstein) in the International Journal of Pharmacy.
- ◆ Published the paper titled "Acute Exposure to ZnO Nanoparticles Induces Autophagic Immune Cell Death" (Co-authors: B. Johnson, J. Fraietta, D. Gracias, J. Hope, C. Stairiker, P. Patel, Y. Mueller, M. McHugh, L. Jablonowski, P. Katsikis) in the Journal of Nanotoxicology.

Dr. Ming Xiao and Colleagues Receive a Wistar Institute Grant for Their Analyzing Cancer Genomes Project

Dr. Ming Xiao, associate professor in BIOMED (PI), and colleagues received a 3-year \$130K Wistar Institute grant for the project titled "A Novel Single-Molecule Telomere Characterization Technology for Analyzing Cancer Genomes."

Dr. Yinghui Zhong and Colleagues Publish Their Neural Implants Paper in the Journal of Neural Engineering

Drs. Yinghui Zhong, assistant professor in BIOMED, and colleagues published the paper titled "Antibacterial, Anti-Inflammatory, and Neuroprotective Layer-by-Layer Coatings for Neural Implants" (Co-authors: Z. Zhang and J. Nong) in the Journal of Neural Engineering.

- ◆ Published the paper titled "Metal Ion-Assisted Self-Assembly of Complexes for Controlled and Sustained Release of Minocycline for Biomedical Applications" (Co-authors: Z. Zhang, Z. Wang, J. Nong, C.A. Nix, and H.F. Ji) in the journal Biofabrication.

BIOMED Achieves and Surpasses Record Fundraising Goals

The School of Biomedical Engineering, Science and Health Systems surpassed its \$1M fundraising goal through the efforts of Joe Delgado, assistant vice president for foundation and corporate relations in the Office of Institutional Advancement and lead development officer in BIOMED. Joe raised \$1.4M in fiscal year 2014 and has secured several large gifts for the School, including a \$560K gift from Shire Pharmaceuticals to seed the Shire-Drexel Partnership for Innovation and a \$500K gift from a BIOMED alumnus to create endowed scholarships for undergraduate students in BIOMED.

BIOMED Hosts Drexel University's Healthcare Innovation Week (HIW)

The School of Biomedical Engineering, Science and Health Systems hosted Drexel University's Healthcare Innovation Week (HIW), held May 18–21, 2015 throughout the University's main campus. The week featured several events, including a healthcare industry panel discussion and Q&A; seminars on entrepreneurship and how science, medicine and engineering can imitate nature; a healthcare industry career expo; an alumni speed networking event; a research and design symposium and poster presentation session; and finally, a BIOMED faculty and student version of the popular TV game show Family Feud.

Student Volunteers and Outreach

The School of Biomedical Engineering, Science and Health Systems would like to thank the following students for their valuable contributions in leading our student outreach efforts and events this past year:

Undergraduate Outreach Volunteers

Tim Hoang (graduating senior)
Tianna Bennett (graduating senior)
Alicia Abraczinskas (graduating senior)
Angeline Aguinaldo
Natassia Aravind
Dimitri Arhontoulis
Sam Cassel
Nicole Ferraro
Farial Fuad
Michael Koerner
Cassandra Li
Evan Lynn
Desiree Martini
Carli Moorehead
Austin Sacks
Julie Speer
Mengdi Tao
Purva Vaidya
William Washington



DREXEL UNIVERSITY
School of

Biomedical Engineering,
Science and Health Systems

3141 Chestnut Street
Philadelphia, PA 19104

Phone: 215.895.2215

Fax: 215.895.4983

Email: biomed@drexel.edu

Website: biomed.drexel.edu