Commencement and Honors Celebration

"Inspired Leadership"

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Drexel University School of Biomedical Engineering, Science & Health Systems



Artwork: Designed by Drexel University students from the School of Biomedical Engineering, Science and Health Systems and the Antoinette Westphal College of Media Arts & Design to mark the founding of the School in 1998. The diamond shape is inspired by the triangle in the official Drexel University Seal and its reflection. The puzzle pieces that make up the diamond represent the complementary nature of human life and technology, nerve cells and electronic circuitry, biomedicine and engineering, hence defining biomedical engineering.

In Loving Memory of ELISABETH PAPAZOGLOU 1959-2011

COMMENCEMENT and HONORS CELEBRATION

Wednesday, June 13, 2012. 5:00 PM Behrakis Hall – Creese Student Center {Located on Chestnut Street, between 32nd and 33rd Streets}

Program of Events

RECEPTION - 5:00 PM

RECOGNITION PROGRAM AND DINNER - 6:00 PM

WELCOME AND GREETING by Dr. Banu Onaral, Director Theme: "Inspired Leadership"

SPECIAL RECOGNITIONS

Leadership Awards

- Inspired Leader Elisabeth Papazoglou
- Elisabeth Papazoglou's Peers Peter Sten Apell, Irwin Chaiken, Peter, Katsikis, Peter Lewin, Kambiz Pourrezaei, Aristidis Veves, Michael Weingarten, and Leonid Zubkov
- The Students that Elisabeth Papazoglou Inspired Charles Ang, Rosemary Bastian, Armin Darvish, Dave Diaz, Brandon Johnson, Michael Neidrauer, An Nguyen, Joshua Samuels, Reva Street, Venkat Sundaram, Chetana Sunkari, and Maureen Wawereu
- Inspired Leadership / Faculty Margaret Wheatley
- Inspired Leadership / Teaching Assistant Arpit Shah
- Inspired Leadership / Undergraduate Student Marko Dimiskovski and Vanessa Lin
- Inspired Leadership / Graduate Student Anant Chopra
- Unsung Heroes / Staff Mary Osbakken and Lisa T. Williams
- Unsung Hero / Faculty Ken Barbee

Senior Design Team Awards

- First Place Team: Zahra Ahmed, Peter D'Antonio, Elise Krogman, and Kate Montgomery / Advisor: Ken Barbee
- Runner-Up Team 1: Joseph Bilikiewicz, Drew Clearfield, Dmitry Dymarsky, and Sonny Sheth / Advisor: Margaret Wheatley

 Runner-Up Team 2: Kenny Furdella, Jordan Gorczynski, Cathleen Kerr, and Erica Louie / Advisor: Margaret Wheatley

Service Awards

- Appreciation for Outstanding Service / Peer Mentors Peter D'Antonio and Jacqueline White
- Appreciation for Outstanding Service / weServe Vanessa Lin, Kate Montgomery, Elise Krogman, Marko Dimiskovski, and Vince Petaccio
- Appreciation for Outstanding Service / Work Study Students -

Jordan Gorczynski, Cathleen Kerr, Erica Louie, Tara Stebelski, and Jacqueline White

• Appreciation for Outstanding Alumni Service - Brian Brooks

STUDENT AWARDS AND HONORS

- Special Student Recognition / Creative Leadership Dhairya Pujara
- Student Accomplishments and Highlights

FACULTY AND STAFF AWARDS AND HONORS

- Special Faculty Recognition / Translation of Published Paper into Russian: "Modeling of Diffuse Photon Density Waves in Frequency Domain" (V. Kuzmin, L. Zubkov, and E. Papazoglou) – Elisabeth Papazoglou
- Special Faculty Recognition / Presentation at the 12th International Symposium on Therapeutic Ultrasound (ISTU) in Heidelberg, Germany on behalf of Elisabeth Papazoglou – **Peter Lewin**
- Faculty and Staff Accomplishments and Highlights

PRESENTATION OF GRADUATING STUDENTS

REMARKS BY GRADUATING STUDENTS

- Undergraduate Student Speaker Vanessa Lin
- Graduate Student Speaker Chetana Sunkari

CLOSING REMARKS by Fred Allen and Margaret Wheatley

GRADUATING CLASS OF 2012

Undergraduate Students BS in Biomedical Engineering

Zahra Ahmed James I. Andorko Neenu Baby Paige M. Bailey Jeremy D. Bauknight Joseph F. Bilikiewicz Ja'Shon Cade Maureen Claire Campbell Paul D. Chialastri Drew S. Clearfield Adrian B. Curtin Peter A. D'Antonio Dionisi A. Daoularis Sean M. Devlin Marko Dimiskovski Yogin Dixit Sean M. Dowd Dmitry Dymarsky Sean C. Eyler David Grant Forney Kenneth J. Furdella Krystle M. Gaco Peter B. Gallo Arpit P. Gandhi Jordan A. Gorczynski James Margolin Havrilla John M. Heffernan Joshua Ho Mir M. Hussain Megha A. Kamath Shruti Vijay Karambelkar Kritika Santosh Katiyar Cathleen M. Kerr Na La Kim Adam Kozakov Elise Marie Krogman Dmytro D. Kyryliouk Lea M. Landsmann

Regina H. Lee Vanessa Lymin Lin Erica Eleanor Louie Weili Ma Claire E. Martin Joseph P. Mathew Mark W. Mekaiel Katelynn C. Montgomery Alicia Morgano Ankur Nagpal Sneha B. Narasimhan Thomas Nguyen Nicholas D. Padovani Padmini Parameswaran Meghal D. Patel Sneha Patel Vincent Joseph Petaccio Bianca P. Pulido Timothy John Purwin Lauren A. Scull Helly K. Shah Poonam Sharma Maksim Shestov Sonny K. Sheth Tara Lynn Stebelski Sherri L. Swayne Tulu Tekmen Patrick R. Thompson Phillip J. Tomezsko Laura Toth Bhanu K. Trehan Ashley Y. Twitty Colin Valentis Daniel Christopher Visco Jacqueline J. White Aaron Yu Christopher J. Zachariah Olga A. Zielinska

GRADUATING CLASS OF 2012

Graduate Students MS in Biomedical Science

Sean Hipp Harshavardhan Nilakantan Bochao Zhang

MS in Biomedical Engineering

James I. Andorko Charles G. Ang Vasavi Arunachalam Jeremy D. Bauknight Ja'Shon Cade Troy P. Carlson Timothy Joseph Connors Sean M. Devlin Marko Dimiskovski Dmitry Dymarsky Brian A. Erickson Krystle M. Gaco Jonathan A. Harris James Margolin Havrilla John M. Heffernan Joshua Ho Yusuf Kanca Anil Kolur Sharadh Kumar Cong Bai Li Vanessa Lymin Lin Andrew I. Marshall Alimatou Mbanya Tchafa

Anthony Patrick Mignano Sneha B. Narasimhan Thomas Nguyen Vishal J. Parikh Vincent Joseph Petaccio Saran Phatharodom Dhairya Nittin Pujara Mauricio Rodriguez Lauren A. Scull Harshil D. Shah Erica Shwarz Mihir Prakash Solanki Bo Song Tara Lynn Stebelski Pawan Kumar Suresh Patrick J. Taggart Kushal Varma Rutvi Vyas Maureen W. Waweru Jacqueline J. White Aaron Yu Chengjie Yu Christopher J. Zachariah

GRADUATING CLASS OF 2012

Graduate Students PhD in Biomedical Engineering

Allison Michelle Andrews Krishna Priya Arjunan Andrew James Atkins Anant Chopra Peter M. Clark Manuel A. Figueroa Nicola Louise Francis Dane W. Grasse Fu-Han Hsieh David J. Jaekel Seunglee Kwon Cristin Marie MacDonald Xiang Mao Boriphat Methachan Mark J. Mondrinos Rochelle E. Nasto Anmiy S. Prabhu Hatice Gozde Senel Ayaz Chetana Sunkari

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STUDENT AWARDS AND HONORS STUDENT ACCOMPLISHMENTS AND HIGHLIGHTS

Zahra Ahmed, Peter D'Antonio, Elise Krogman, and Kate Montgomery Win First Place Prize in the 2012 BIOMED Senior Design Competition

Zahra Ahmed, Peter D'Antonio, Elise Krogman, and Kate Montgomery, all undergraduate students in BIOMED (Advisor: Ken. Barbee / Support: Hahnemann Hospital), won the First Place Prize in the 2012 School of Biomedical Engineering, Science, and Health Systems Senior Design Competition for their project titled "Design of Improved Suction Catheter for the Removal of Particulate Matter and Liquid Prior to Emergency Intubation." The team was also selected to represent the School at the College of Engineering (CoE) Senior Design Competition on June 6, 2012. The two Runner-Up teams are listed below and will be honored at the 2012 BIOMED Commencement Celebration Luncheon on June 13, 2012 in Behrakis Hall.

Runner-Up Team 1: "Evaluation of Cell Adherence/Infiltration of Ceramic Bone Graft Substitutes Using a Modified Direct-Perfusion Bioreactor" Members: Sonny Sheth, Joseph Bilikiewicz, Drew Clearfield, and Dmitry Dymarsky Advisor: Margaret Wheatley Support: Stryker Orthobiologics

Runner-Up Team 2: "A Beta-TCP/Resorbable Mesh Bone Void Filler with Increased Strength for Irregular Bone Void Deformities" Members: Jordan Gorczynski, Cathleen Kerr, Erica Louie, and Kenny Furdella Advisor: Margaret Wheatley Support: Kensey Nash Corporation

Zahra Ahmed and Claudia Gutierrez Receive 2012 Division of Student Life and Undergraduate Student Government Association Awards

Each year the Division of Student Life and the Undergraduate Student Government Association recognize the outstanding contributions of student leaders, student organizations, and their advisors to the Drexel community. The following students from the School of Biomedical Engineering, Science, and Health Systems were selected as award winners for the 2011-2012 academic year:

- Alexander Van Rensselaer Service Award: Zahra Ahmed
- Rising Leader of the Year: Claudia Gutierrez

Lorenzo Albala, Alex Koszycki, and Darshak Shah Receive the DAAD RISE (Research Internships in Science and Engineering) Award for Summer Research in Germany

Lorenzo Albala (BS/MS student in BIOMED), Alex Koszycki (BS/PhD student in BIOMED) and Darshak Shah (BS/MS student in BIOMED) received the DAAD RISE (Research Internships in Science and Engineering) award for summer research in Germany. RISE is a summer internship program for undergraduate students from the US, Canada, and the UK in the fields of biology, chemistry, physics, earth sciences and engineering. It offers unique opportunities for undergraduate students to work with research groups at universities and top research institutions across Germany for a period of 2 to 3 months during the summer.

Giang Au Wins First Place Graduate Student Poster Award at Drexel Research Day 2012

Giang Au, PhD candidate in BIOMED (Advisors: W.Y. and W.H. Shih), and coauthors Linette Mejias, Vanlila Swami, and Ari Brooks (all from CoM), won the first place poster award for Graduate Students in Biology and Biomedical category at Drexel Research Day 2012 for the project "Assessing Breast Cancer Margin Using an Aqueous Quantum Dot (AQDs) Enabled Molecular Probe."

Denariel Benn, Andrew Dimatteo, Marko Dimiskovski, Josa Hanzlik, and Shirin Karsan Are Featured in a Triangle Story on Drexel's Science, Technology, Engineering and Mathematics (STEM) Outreach Event

Denariel Benn, Andrew Dimatteo, Marko Dimiskovski (all undergraduate students in BIOMED), Josa Hanzlik, PhD candidate in BIOMED (Advisor: S. Kurtz), and Shirin Karsan, weServe Program Director in BIOMED, were featured in a Triangle story on Drexel's Science, Technology, Engineering and Mathematics (STEM) Outreach Event, held October 2, 2011 in the Bossone Research Enterprise Center, for Philadelphia area high school students to learn about the sciences.

Joshua Booren and David Diaz Receive National Science Foundation (NSF) Graduate Research Fellowships

Joshua Booren, graduate student in BIOMED, and David Diaz, PhD student in BIOMED (Advisor: P. Lewin), were Drexel 2012 National Science Foundation Graduate Research Fellowship Program (NSF GRFP) recipients. The NSF GRFP provides three years of funding and a \$30K annual stipend for research-oriented graduate study in the sciences.

Anant Chopra's Paper Is Published in the Journal of Biomechanics

Anant Chopra, doctoral student in BIOMED (Advisor: Y. Kresh), published the paper titled "Reprogramming Cardiomyocyte Mechanosensing by Crosstalk Between Integrins and Hyaluronic Acid Receptors" in the December 26, 2011 issue of the Journal of Biomechanics (Co-authors: V. Lin, A. McCollough, S. Atzet, G.D. Prestwich, A.S. Wechsler, M.E. Murray, S.A. Oake, Y.J. Kresh, and P.A. Janmey).

Andrew DiMatteo, Katelynn Montgomery, and Shirin Karsan Lead weServe \$2 a Day Challenge to Raise Awareness and Understanding of Healthcare Needs and Disparities

Andrew DiMatteo, BS/MS student in BIOMED, and Katelynn Montgomery, a senior undergraduate in BIOMED, along with Shirin Karsan, Director of the

weServe Program in BIOMED, led the weServe \$2 a Day Challenge, held April 16-18, 2012. Approximately 30 weServe student members sought to bring awareness and understanding of healthcare needs and disparities at a local and global level by living off of only \$2 per day for three days, as nearly half of the world's population lives on only \$2 a day. The participants built a communal outdoor shelter on Drexel's Lancaster Walk and raised approximately \$900, half of which will be used for the weServe International Program, with the other half, along with 111 pounds of food donations, being given to Philabundance.

Marko Dimiskovski, Vanessa Lin, Shirin Karsan Present Collaborative Student Service-learning Experiences Paper at the American Society for Engineering Education (ASEE) Annual Conference & Exposition Marko Dimiskovski and Vanessa Lin, both BS/MS students in BIOMED, along with Alexa Karkenny, BS/MD student in BIOMED, Shirin Karsan, Director of

the weServe Program in BIOMED, P.K. Brahmbhatt (Dept. of Physics), and J. Bhatt (Liaison Librarian for Engineering) presented their paper titled "International Biomedical Engineering Education through Collaborative Student Service-learning Experiences" at the119th American Society for Engineering Education (ASEE) Annual Conference & Exposition in the San Antonio Convention Center, June 10-13, 2012. Additional distinction:

• Marko and Shirin attended a weServe fundraising event that resulted in \$18.5K in funds from the Mozambique Development in Motion (MDIM) program, held in Dallas, TX in October 2011. The funds will support Biomed students for co-ops going to Mozambique, with some funds used for equipment parts and repairs done by weServe students serving there.

David Forney Receives US Army Leadership Excellence Award

David Forney, undergraduate student in BIOMED and member of Drexel's ROTC program, represented Drexel at the U.S. Army's Leader Development and Assessment Course and was awarded the Association of the United States Army Leadership Excellence Award this July.

Jacqueline Gerhart Wins the Best Poster Award at the Bioinformatics and Biomedicine (BIBM) 2011 IEEE International Conference on Bioinformatics and Biomedicine

Jacqueline Gerhart, undergraduate student in BIOMED (Advisor: A. Sacan), won the Best Poster Award at the Bioinformatics and Biomedicine (BIBM) 2011 IEEE International Conference on Bioinformatics and Biomedicine, held November 12-15, 2011 in Atlanta, GA. Jacqueline won for her poster titled "Reconstruction of Gene Regulatory Networks by Stepwise Multiple Linear Regression from Time-Series Microarray Data," co-authored with Dr. Ahmet Sacan, Assistant Professor in BIOMED, and Yiqian Zhou, doctoral student in BIOMED.

Nicholas Grzeczkowski, Andrew Hall, and Chris Veale Are Team Finalists in the Baiada Institute for Entrepreneurship 2012 Business Plan Competition Nicholas Grzeczkowski, Andrew Hall, and Chris Veale, all undergraduate students in BIOMED, were selected as one of six team finalists in the Laurence A. Baiada Institute for Entrepreneurship 2012 Business Plan Competition for their project "FNIR for Depth of Anesthesia." They are now eligible to present their business plan at the Pitch Competition on April 25, 2012.

Josa Hanzlik Is Selected as a 2012 Fulbright Scholarship Finalist

Josa Hanzlik, PhD candidate in BIOMED (Advisor: S. Kurtz) was selected as a 2012 finalist for the prestigious Fulbright Scholarship. Josa will continue her study of the interaction of bone with porous orthopaedic implants by working with collaborators at Radboud University Nijmegen Medical Center in the Netherlands. Additional distinction:

• Performed a demonstration with cornstarch and water for the Philadelphia Science Festival on April 18 on KYW-TV (CBS-3) "Talk Philly" on April 18, 2012.

Boriphat Methachan Wins First Prize in the Graduate Student Category of the 2012 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley Poster Competition

Boriphat Methachan, PhD candidate in BIOMED (Advisor: M. Wheatley), won first prize in the graduate student category of the 2012 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley student poster competition, held May 1, 2012 at Villanova University, for the project "Ultrasound Contrast Agents for Tumor Perfusion Imaging and as Drug Carriers " (Co-authors S. Evans, C. Koch, C. Sehgal, S. Schultz, and M. Wheatley). ISPE will support Boriphat to present his poster at the International Poster Competition during the fall ISPE Annual Meeting in San Francisco, CA.

Kelsey Pagdon Wins Second Place Award for Best Student Paper at the Symposium on Fusion Engineering (SOFE)

Kelsey Pagdon, undergraduate in BIOMED, won the Second Place prize for Best Student Paper at the Symposium on Fusion Engineering (SOFE), held June 26-30, 2011 in Chicago, IL, for the paper titled "Production of Tc-99m from Naturally Occurring Molybdenum Absent Uranium." One use of this technology could allow for imaging using Tc-99m to be used in places where this technology is not currently available (e.g., underdeveloped countries).

Dhairya Pujara Wins the 2012 Drexel Graduate Student Association Meritorious Service Award

Dhairya Pujara, graduate student in BIOMED, received the 2012 Meritorious Service Award at the Drexel University Graduate Student Association award ceremony, held May 30, 2012 in the Great Court of the Main Building. Additional distinction:

• Lead student organizer of Drexel University's first TEDx Drexel U. conference. BIOMED students and faculty also participated in organizing the all-day event, held May 16, 2012 in the Bossone Mitchell Auditorium.

Erin Reichenberger Is Selected as an Awardee in the Ford Foundation Fellowship 2012 Pre-doctoral Competition

Erin Reichenberger, PhD candidate and Calhoun Fellow in BIOMED (Advisors: U. Hershberg and G. Rosen), was selected as an awardee in the Ford Foundation Fellowship 2012 pre-doctoral competition, based on her scholarly competence, as well as the promise that she shows for future achievement as a scholar, researcher, and teacher in an institution of higher education. The fellowship is sponsored by the Ford Foundation and administered by the National Research Council of the National Academies.

Jasmine Saini and Gregory Schwartz Receive Travel Stipends to Present at the 2012 Lymphocyte Repertoire Workshop at the Hebrew University Institute for Advanced Studies

Jasmine Saini and Gregory Schwartz, both PhD students in BIOMED (Advisor: U. Hershberg), received a travel stipend to present a lecture at the 2012 Lymphocyte Repertoire Workshop, organized by the European Science Foundation and the Hebrew University Institute for Advanced Studies, February 19-23, 2012. Additional distinction:

• Gregory received a travel stipend to the attend the 2012 q-bio Computational Biology Workshop at the Santa Fe Institute in Santa Fe, NM.

Danielle Solomon Wins Third Place in the American Society of Mechanical Engineers (ASME) Summer Bioengineering Conference PhD Competition Dannielle Solomon Figueroa, doctoral student in BIOMED (Advisor: A.M. Clyne), won the Third place prize in the PhD competition at the American Society of Mechanical Engineers (ASME) Summer Bioengineering Conference, held June 22-25, 2011 in Farmington, PA, for the project "Basement Membrane Collagen Glycation Prevents Endothelial Cell Response To Strain Due To Altered Focal Adhesion Formation."

Nutte Tarn Teraphongphom Wins for Best Oral Presentation in the Engineering Translational Medicine Category at the 5th Annual Drexel Engineering Graduate Research Symposium

Nutte Tarn Teraphongphom, PhD candidate in BIOMED (Advisor: M. Wheatley) won the prize for Best Oral Presentation in the Engineering Translational Medicine category for the poster "Developing a Method for Tracking Ultrasound Contrast Agent Fragments" at the 5th Annual Drexel Engineering Graduate Research Symposium, held May 24, 2012 in the Bossone Research Enterprise Center.

Phillip Tomezsko Is Selected as a 2012 Fulbright Scholarship Finalist

Phillip Tomezsko, undergraduate student in BIOMED, was selected as a 2012 finalist for the prestigious Fulbright Scholarship. Phillip will work in the HIV-1 pathogenesis research lab of a professor at the University of Witwatersrand in South Africa.

Valerie Tutweiler Receives an American Society of Hematology (ASH) Trainee Research Award

Valerie Tutweiler, undergraduate student in BIOMED, received an American Society of Hematology (ASH) Trainee Research Award, which provides support for medical students, residents, and undergraduates in the form of \$4K for a hematology relevant research project and \$1K for travel to the Society's annual meeting.

Runqing (Rachel) Wang Receives a Whitaker Undergraduate Program Award To Attend the Foundation for International Education in London Study Abroad Program

Runqing (Rachel) Wang, BS/MS student in Biomed, received a \$7.5K Whitaker Undergraduate Program Award, funded by the Whitaker International Program and the Institute of International Education (IIE), to attend the Foundation for International Education in London Study Abroad Program in Fall 2012.

FACULTY AND STAFF AWARDS AND HONORS FACULTY AND STAFF ACCOMPLISHMENTS AND HIGHLIGHTS

BIOMED Faculty Members Receive 2012 Wallace H. Coulter Translational Research Grants

The following BIOMED faculty members received a 2012 Wallace H. Coulter Translational Research Grant:

Drs. Michael Neidrauer, Assistant Research Professor in BIOMED, Leonid Zubkov, Research Professor in BIOMED, and Michael Weingarten (CoM) received \$100K in Coulter funding for the project "Diagnosis of Tissue Damage from Micron to Centimeter Depths Using Non-Contact Near Infrared."

Drs. Wan Shih, Associate Professor in BIOMED, Ari D. Brooks (CoM), Wei-Heng Shih (MSE), and Vanlila K. Swami (CoM) received \$85K in Coulter funding for the project "Near Infrared Quantum Dots for Clear Margin Determination during Breast Cancer Surgery."

Drs. Meltem Izzetoglu, Research Assistant Professor in BIOMED, Baruch Ben Dor, Entrepreneur in Residence in BIOMED and CEO, InfraScan and Peter Le Roux (U of P Hospital) received \$90K in Coulter funding for the project "Non-Invasive Hand-Held Brain Edema Monitoring System."

Drs. Karen Moxon, Associate Professor in BIOMED and Michael Sperling (TJU) received \$100K in Coulter funding for the project "Closed-loop Seizure Control Device."

Drs. Peter A. Lewin, Richard B. Beard Distinguished University Professor of Biomedical and Electrical and Computer Engineering, Director, Biomedical Ultrasound Research and Education Center and Jane McGowan (CoM) received \$100K in Coulter funding for the project "Ultrasound for Localizing Endotracheal Tubes (ETTs) in Neonates."

Dr. Hasan Ayaz and Optical Brain Imaging Team Members Receive a Research Gift from Intel Corporation for Using Optical Brain Imaging in Human Computer Interaction Settings

Dr. Hasan Ayaz, Assistant Research Professor in BIOMED (PI), together with the support of the faculty and students of the Optical Brain Imaging Team at the Cognitive Neuroengineering and Quantitative Experimental Research (CONQUER) Collaborative, received a \$120K research gift from Intel Corporation for using Optical Brain Imaging in Human Computer Interaction settings, and for the project titled "A Feasibility Study for the Assessment of Cognitive Workload and Speech Perception Using Optical Brain Monitoring."

Dr. Sriram Balasubramanian Receives the 2011 Outstanding STAR (Students Tackling Advanced Research) Scholars Program Mentor Award

Dr. Sriram Balasubramanian, Assistant Professor in BIOMED, received the 2011 Outstanding STAR (Students Tackling Advanced Research) Scholars Program Mentor Award at the STAR Student Poster Competition, held August 24, 2011 in the Bossone Research Enterprise Center.

Drs. Ken Barbee, Elisabeth Papazoglou, Karen Moxon, Adrian Shieh, Fred Allen, and Peter Lelkes Receive an NIH Grant for Streamlining Path to Success for the Design of Life Saving Devices

Drs. Ken Barbee, Associate Professor in BIOMED (PI), Elisabeth Papazoglou, Associate Professor in BIOMED, Karen Moxon, Associate Professor in BIOMED, Adrian Shieh, Assistant Professor in BIOMED, Fred Allen, Associate Teaching Professor & Associate Director for Undergraduate Studies in BIOMED, and Peter Lelkes, Visiting Research Professor and Distinguished Calhoun Scholar in BIOMED, were awarded a 5-year \$200K NIH grant for the project, "Streamlining Path to Success for the Design of Life Saving Devices." Additional distinction:

• Dr. Barbee was quoted in an article that appeared in the July 22, 2011 online editions of Nature and Scientific American about recent brain injury research results. The article references the research of Dr. Barbee, Dr. Devrim Kilinc, a 2008 alumnus of BIOMED, and Dr. Gianluca Gallo (CoM). He was also quoted in the September 21, 2011 edition of Nature in an article titled "Bombs' hidden impact: The brain war."

Dr. William Dampier Is Featured in a CNN and Philadelphia Inquirer Article on Crowd Sourcing

Dr. William Dampier, Research Assistant Professor in BIOMED, was featured in an article on crowd sourcing on CNNMoney.com on September 7, 2012 and in The Philadelphia Inquirer on July 18, 2011. The article discusses Dr. Dampier's successful effort to find a more accurate way of predicting how a person with HIV would respond to antiretroviral drugs. Additional distinction:

• Cited in Genetic Engineering & Biotechnology News on December 20, 2011 for organizing a competition that had teams develop new algorithms for predicting progression of the HIV virus.

Dr. John Domzalski Is Profiled in a Philadelphia Daily News Article on the Broad Street Run

Dr. John Domzalski, Research Professor in BIOMED, was profiled in the April 20th edition of the Philadelphia Daily News regarding the 33rd annual 10-mile Blue Cross Broad Street Run, which takes place on May 6, 2012.

Dr. Gregory Fridman and Colleagues Receive Keck Foundation Grant for Transformation of Biomolecules by Nonequilibrium Plasma Research Dr. Gregory Fridman, Assistant Research Professor in BIOMED and Co-Director, Plasma Medicine Lab, AJ Drexel Plasma Institute, is a member of the team that received a \$1M award from the Keck Foundation for their multi-disciplinary research proposal for the project titled "Transformation of Biomolecules by Nonequilibrium Plasma."

Dr. Uri Hershberg Is an Invited Speaker at the 2012 Lymphocyte Repertoire Workshop at the Hebrew University's Institute for Advanced Studies Dr. Uri Hershberg, Assistant Professor in BIOMED, was an invited speaker at the 2012 Lymphocyte Repertoire Workshop, organized by the European Science Foundation and the Hebrew University's Institute for Advanced Studies, February 19-23, 2012. Additional distinction:

 His paper titled "The Immune System and Other Cognitive Systems" (Co-author: S. Efron, Weizmann Institute of Science) was translated into Polish, along with an interview, in Avant: The Journal of the Philosophical-Interdisciplinary Vanguard.Participated in the American Heart Association (AHA) Research Roundtable "What's Next in Cardiovascular Disease Research," fielding questions from national and international news outlets on advances made in cardiac repair and regeneration, November 16, 2010.

Dr. Joshua Jacobs and Colleagues Publish a Paper on How Brain Stimulation Can Evoke Memories in the Journal of Cognitive Neuroscience Dr. Joshua Jacobs, Assistant Professor in BIOMED, Bradley Lega, and Christopher Anderson (both from the U. of Pennsylvania) published the paper titled "Explaining How Brain Stimulation Can Evoke Memories" in the March 2012 edition of the Journal of Cognitive Neuroscience. Additional distinction:

• Published the paper titled "Human Hippocampal Theta Oscillations and the Formation of Episodic Memories" (Co-authors: B. Lega and M. Kahana, both from U. of Pennsylvania) in the April 2012 edition of Hippocampus.

Dr. Dov Jaron Is Elected to a Second Term on the Executive Board of the International Council for Science (ICSU)

Dr. Dov Jaron, Calhoun Distinguished Professor of Engineering in Medicine in BIOMED, was elected to a second 3-year term on the Executive Board of the International Council for Science (ICSU). He was the only individual from the previous Executive Board who was re-elected to membership on the board, which mainly had to do with the new ICSU initiative on "Systems Analysis for Health and Well Being in the Urban Environment." Additional distinction:

• Will travel as a member of the ICSU and the US National Academy of Sciences delegation to attend the Rio+20 United Nations Conference on

Sustainable Development on June 20-22, 2012 in Rio de Janeiro. Dr. Jaron will participate in the forums on "Human Well Being and Population Health" and "Urban Well Being" the week of June 10-16, 2012.

• Named Honorary Life Member of the International Federation for Medical and Biological Engineering (IFMBE).

Shirin Karsan Is Appointed To Serve on the Board of Global Bioethics Initiative (GBI)

Shirin Karsan, Director of the weServe Program in BIOMED, was appointed as a board member for the newly established Global Bioethics Initiative (GBI), whose mission is to establish and promote reflection and action on policy debates in medical and biotechnological sciences, as well as to foster understanding of the social, cultural, political and legal contexts in which pressing global issues are addressed.

Drs. Steven Kurtz, Avram Edidin and Implant Research Center Team Members' Paper Is Selected as One of the Top Ten Best To Present at the North American Spine Society (NASS)

Drs. Steven Kurtz, Research Associate Professor in BIOMED, Avram Edidin, Research Associate Professor in BIOMED, and team members (Kevin Ong and Edmund Lau) of the Biomed Implant Research Center (IRC) published a paper titled "Life Expectancy Following Diagnosis of a Vertebral Compression Fracture" that was selected as one of the top ten best papers to be presented at the North American Spine Society (NASS) 26th Annual Meeting on November 3, 2011 in Chicago, IL. Additional distinctions:

- Dr. Kurtz organized with Implant Research Center team members Josa Hanzlik, Dan MacDonald, Doruk Baykal, David Jaekel (all Ph.D. Candidates in BIOMED), Michael Beeman (Research Coordinator), and Genymphas Higgs (Undergraduate Researcher) the 5th Annual Ultra-High-Molecular-Weight Polyethylene (UHMWPE) International Meeting, held September 22-23 in Drexel's Bossone Research Enterprise Center.
- Cited in an article in the online publication AsiaOne on December 4, 2011 for his research on baby boomers' need for joint replacements.

Dr. Shirley Kutner Is Honored for her Four Years of Service with the America Israel Chamber of Commerce (AICC)

Dr. Shirley Kutner, Entrepreneur in Residence and Strategic Consultant to the Health Innovation Partnership in BIOMED, was honored for her four years of service to the community and staff by the America Israel Chamber of Commerce (AICC) at the 25th Anniversary Rabin Award dinner on April 16, 2012 at the Crystal Tea Room in Philadelphia, PA.

Drs. Peter Lewin and Elisabeth Papazoglou Receive an NSF Grant for Their Non Invasive Ultrasound Assisted Delivery of Drug Loaded Intact Liposomes Project

Drs. Peter A. Lewin, Richard B. Beard Distinguished University Professor of Biomedical and Electrical and Computer Engineering, Director, Biomedical Ultrasound Research and Education Center (PI), Elisabeth Papazoglou, Associate Professor in BIOMED (Co-PI), and Steven Wrenn, Associate Professor in CoE (Co-PI), received a 3-year \$330K NSF grant for the project titled "Non Invasive Ultrasound Assisted Delivery of Drug Loaded Intact Liposomes: A Combined Experimental and Modeling Approach." Drs. Lewin and Wrenn would like to acknowledge Dr. Elisabeth Papazoglou's contribution to this project, whose leadership skills and research expertise are sorely missed due to her untimely death. Additional distinctions:

- Drs. Lewin, Papazoglou, and Weingarten obtained an additional year of a 5-year \$2.1M NIH funding for the project "Acousto-Optic Theragnostic Approach to Chronic Wound Management.
- Drs. Lewin, Papazoglou, and colleagues (Co-authors Y. Sunny, C. Bawiec, A. Nguyen, J. Samuels, L. Zubkov, and M. Weingarten) published the paper titled "Optimization of Un-tethered, Low Voltage, 20-100 KHz Flexural Transducers for Biomedical Ultrasonics Applications" in the Journal of Ultrasonics.
- Inducted as a Fellow of the prestigious International Academy of Medical and Biological Engineering (IAMBE) in recognition of his distinguished contributions to the field of medical and biological engineering. Dr. Lewin was also commended for serving as ultrasound exposimetry expert on the Technical Committee of the American Institute of Ultrasound in Medicine.
- Presented the paper titled "Customized and Noninvasive Transcutaneous Drug Transport: Will Ultrasound Deliver?" (Co-authors: E. Papazoglou, A. Nguyen, S. Wrenn, Y. Sunny, Ch. Bawiec, J. Samuels, L. Zubkov), at the 12th International Symposium on Therapeutic Ultrasound (ISTU) in Heidelberg, Germany.

Dr. Hualou Liang Is Elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows

Dr. Hualou Liang, Professor in BIOMED, was elected to the College of Fellows of the American Institute for Medical and Biological Engineering (AIMBE). The major criterion for admission to the AIMBE College of Fellows is a demonstrable record of individual achievement in research, development, education, manufacturing, public service, technological leadership and/or clinical practice as they relate to medical and biological engineering.

Dr. Donald McEachron and Colleagues Publish Paper on Disseminating and Evaluating Best Practices in Education in the International Journal of Information and Learning Technology

Dr. Donald McEachron, Research Professor and Associate Director in BIOMED, Dr. Craig Bach, Associate Vice Provost for Curriculum and Assessment, and Mustafa Sualp, President of AEFIS and Untra Corporation, published the paper titled "Digital Socrates: A System for Disseminating and Evaluating Best Practices in Education" in the International Journal of Information and Learning Technology – Campus-Wide Information Systems. The paper was selected from a group of highly regarded articles presented at the International Conference on Engineering Education (ICEE) 2011 in Belfast, Ireland, August 21-26, 2011. Additional distinction:

• Presented with Gena Ellis (CoMAD) their Coulter funded project on redesigning the environment for the elderly through the creative use of light and color to improve circadian function, at the Health in Place Board of Directors meeting in Philadelphia on February 28, 2012.

Dr. Anna Merzagora's Paper on Functional Near Infrared Spectroscopy Is Selected as One of the Top Ten Papers from the Journal of Innovative Optical Health Sciences (JIOHS) in 2011

Dr. Anna Merzagora, Research Assistant Professor in BIOMED, authored the paper titled "Functional Near-Infrared Spectroscopy-Based Assessment of Attention Impairments After Traumatic Brain Injury," which was selected as one of the top ten papers from Journal of Innovative Optical Health Sciences (JIOHS) in 2011 (A. Merzagora, M. Schultheis, B. Onaral and M. Izzetoglu).

Dr. Karen Moxon and Team Members Are Selected as One of Ten Project Finalists Invited for the Fourth Round of the Science Center QED Funding Awards

Dr. Karen Moxon, Associate Professor in BIOMED (PI), and team members were selected as one of ten project finalists invited for the fourth round of the Science Center QED funding awards. Additional distinctions:

- Elected to become a 2012-2013 Executive Leadership in Academic Technology and Engineering (ELATE) Fellow for the inaugural class selected from academic engineering and technology's most promising women leaders.
- Published with Guglielmo Foffani, Research Associate Professor in BIOMED and at the Hospital Nacional de Parapléjicos, Toledo, Spain, the article titled "Trial-to-Trial Variability in the Responses of Neurons Carries Information about Stimulus Location in the Rat Whisker Thalamus" for publication in the Proceedings of the National Academy of Sciences (PNAS).

Dr. Banu Onaral Organizes Drexel Delegation's Visit to Turkey in Support of Translational Research Partnerships

Dr. Banu Onaral, H. H. Sun Professor and Director, School of Biomedical Engineering, Science and Health Systems, organized a trip to Turkey for a Drexel University delegation that President John Fry led through a five-day tour of Turkey's epicenters for research and technological innovation. The delegation consisted of University administrators, BIOMED and CoE faculty, and representatives from Duke University and The Johns Hopkins University and industry partners. The Innovation Partnership Forum Delegation spent time at some of the nation's top universities, visited innovative "technoparks" and participated in a national biomedical engineering summit. Additional distinctions:

- Participated in the inauguration of the Drexel-Shanghai Advanced Research Institute (SARI) of the Chinese Academy of Sciences, held October 19, 2011 in Shanghai, China. A key aspect of this 'innovation partnership' is to collaborate on the establishment of a 'translational research partnership' program inspired by the Coulter model to commercialize the ongoing research ongoing at SARI. She also led, with Davood Tashayyod, Coulter Program Director in BIOMED, a workshop on 'translational research partnership,' inspired by the Coulter Model at Shanghai Jiao Tong University (SJTU).
- Committed \$30K in support over two years from BIOMED for the Shima Seiki Haute Technology Laboratory of Genevieve Dion, Assistant Professor and Fashion Design Program Director in CoMAD. The state-of-the-art laboratory is used to conduct research for the development of new smart textiles and wearable technologies, and to explore new methods of production that will ultimately impact a number of market sectors.
- Honored by the Israel Chamber of Commerce on November 15, 2011 at the US Israel Healthcare Technology Conference Kick-off. Dr. Onaral is one of the founding members of the Drexel University-Hebrew University research HUB and was mentioned in the Jewish Exponent for her work with health-related collaborations between Israel and the Greater Philadelphia region.

Drs. Elisabeth Papazoglou and Peter Lewin Receive Drexel University-Institute for Drug Research (DU-IDR) Funding for Their Ultrasound Assisted Transdermal Delivery of Drug-loaded Liposomes Project

Drs. Elisabeth Papazoglou, Associate Professor in BIOMED, Peter A. Lewin, Richard B. Beard Distinguished University Professor of Biomedical and Electrical and Computer Engineering, Director, Biomedical Ultrasound Research and Education Center, Steven P. Wrenn (C&BE), Eylon Yavin (IDR), and Philip Lazarovici (IDR), received \$50K in Drexel University-Institute for Drug Research (DU-IDR) funding for the project "Ultrasound Assisted Transdermal Delivery of Drug-loaded Liposomes Tagged with NIR Dye for Non-invasive Administration of Arthritis Treatments."

Dr. Rami Seliktar Is Appointed Editor in Chief of the Journal of Bioengineering and Biomedical Science

Dr. Rami Seliktar, Professor and Vice Director of BIOMED, was appointed Editor in chief of the journal of Bioengineering and Biomedical Science. Additional distinctions:

- Co-chaired the joint Bi-national Symposium on Translational Research in Biomedicine and Bioengineering, jointly organized by the Hebrew University, Institute for Drug Research, and Drexel University, held January 29-31, 2012 in Jerusalem, Israel.
- Member of the Drexel University Delegation that was led by President John Fry to the Israel Institute of Technology (the Technion), July 4-11, 2011.

Drs. Patricia Shewokis, Kurtulus Izzetoglu and Meltem Izzetoglu Receive an NSF Human-Centered Computing Program Grant

Drs. Patricia Shewokis, Professor in CoNHP with a joint appointment in BIOMED (Co-PI), Kurtulus Izzetoglu, Research Assistant Professor in BIOMED, Meltem Izzetoglu, Research Assistant Professor in BIOMED, and team members were awarded a 4-year \$1.2M NSF Human-Centered Computing Program grant for the project "Improved Control and Sensory Feedback for Neuroprosthetics." The collaborative research grant includes researchers from Rice University (Dr. Marcia O'Malley) and the Universities of Maryland (Dr. Jose Contreras-Vidal) and Michigan (Dr. Brent Gillespie). The project goal is to design a prosthetic arm that allows amputees to feel what they touch. Additional distinctions:

- Dr. Shewokis was featured, along with Drexel's Cognitive Neuroengineering and Quantitative Experimental Research (CONQUER) lab, in a WHYY/ Newsworks story on how brain imaging could lead to the development of "smart" prosthetics as artificial limbs controlled directly by the brain.
- Cited in a NY Times article on NBC News and Sports bringing the 'Science of NHL Hockey' to TVs and classrooms. NBC aired a video in which Dr. Shewokis explained the science behind reflexes, reaction time, and linear motion.

Dr. Adrian Shieh and Colleague Receive a 2012 DrexelMed Commonwealth Universal Research Enhancement (CURE) Award

Dr. Adrian Shieh, Assistant Professor in BIOMED (PI), and Michael Bouchard (Co-PI – CoM) received a 2012 DrexelMed Commonwealth Universal Research Enhancement (CURE) Award for their project "Interactive Roles of Interstitial Flow and Hepatitis B Virus in Liver Cancer Progression."

Dr. Wan Shih Is Cited in the January Issue of Medical Design Briefs for Her Breast Cancer Detection Device

Dr. Wan Shih, Associate Professor in BIOMED, was cited in an article in the January issue of Medical Design Briefs regarding her project titled "Portable, Low-Cost, Radiation-Free Breast Cancer Detector for Dense Breasts" (W.Y. Shih, A. Brooks, W.H. Shih, and L. Komarnicky). The project was selected as one of the inaugural projects for the University City Science Center's QED program, a proof-of-concept development grant that helps academic researchers reach the marketplace.

Dr. Aydin Tozeren Is Awarded a Research Contract Extension from GlaxoSmithKline (GSK)

Dr. Aydin Tozeren, Distinguished Professor and Director, Center for Integrated Bioinformatics, was awarded a \$95K research contract extension from GlaxoSmithKline (GSK), as part of the Drexel-GSK Bioinformatic Research Alliance. Additional distinctions:

- Received with Michael Bouchard (PI CoM), and Laura Steel (Co-PI CoM) a 2012 DrexelMed Commonwealth Universal Research Enhancement (CURE) Award for their project "An Interdisciplinary Approach to Directly Identify Changes in the miRNA-Targeted mRNA Population Induced by HBV Infection."
- Will present "Bioinformatics as a Tool for Deciphering the Grammar of Crosstalk between Host and Pathogen" at the 2012 International Symposium on Molecular Medicine and Infectious Disease at the Institute for Molecular Medicine and Infectious Disease (IMM&ID) in CoM, June 19-21, 2012.
- Appointed as manager of the Bioinformatics Core at the Jefferson Kimmel Cancer Center in Philadelphia, PA.
- Published the following articles: 1) "Bioinformatics Analysis Reveals Transcriptome and MicroRNA Signatures and Drug Repositioning Targets for IBD and Other Autoimmune Diseases" (P. Clark, N. Dawany, W. Dampier, S. Byers, R. Pestell, A. Tozeren) in the Journal Inflammatory Bowel Diseases;
 2) "Identification of Common Biological Pathways and Drug Targets Across Multiple Respiratory Viruses Based on Human Host Gene Expression Analysis" (S. Smith, W. Dampier, A. Tozeren, J. Brown, M. Magid-Slav) in the Public Library of Science (PLoS) One; 3) "ChIP Sequencing of Cyclin D1 Reveals a Transcriptional Role in Chromosomal Instability in Mice" (M. Casimiro, M. Crosariol, E. Loro, A. Ertel, Z. Yu, W. Dampier, E. Saria, A. Papanikolaou, T. Stanek, Z. Li, C. Wang, P. Fortina, S. Addya, A. Tozeren, E. Knudsen, A. Arnold, R. Pestell) in the Journal of Clinical Investigation; and 4) "HIV Protein Sequence Hotspots for Crosstalk with Host Hub Proteins" (M. Sarmady, W. Dampier, A. Tozeren) in the PLoS One.

Dr. Margaret Wheatley and Her Research Group Mentored Student Wins the Joint First Prize in the NSF Research Experiences for Undergraduates (REU) Student Poster Competition

Dr. Margaret Wheatley, John M. Reid Professor in BIOMED, and her research group mentored Summer Sensors Program participant Ryan Judd, undergraduate student in bioengineering at the U. of Missouri, won the joint first prize in the NSF Research Experiences for Undergraduates (REU) student poster competition, held August 11, 2011 in the Bossone Research Enterprise Center, for the project "Steps Toward Developing a Stealth Ultrasound Contrast Agent" (R. Judd, J. Andorko, M. Wheatley). Additional distinction:

 Quoted in a May 28th Phys.org news blog post about the viability of massproducing microcapsules in microgravity. NASA has been testing the process of combining liquids in zero gravity to produce microcapsules for drug delivery since 1998.

InfraScanner Is Selected as the Product Innovation of the Year and UE LifeSciences as a Life Sciences Startup Awardee by the Philadelphia Alliance for Capital and Technologies (PACT)

InfraScanner, a hand-held, point-of-care device developed in part by a team in the School of Biomedical Engineering, Science and Health Systems to be used in emergency rooms to detect bleeding in traumatic brain injury, was selected as the Product Innovation of the Year by the Philadelphia Alliance for Capital and Technologies (PACT). Dr. Baruch Ben Dor, Entrepreneur in Residence in BIOMED, received the award on behalf of the InfraScanner team, which includes Dr. Banu Onaral, H. H. Sun Professor and Director, School of Biomedical Engineering, Science and Health Systems, and Drs. Hasan Ayaz, Kurtulus Izzetoglu, and Meltem Izzetoglu (all Research Assistant Professors in BIOMED). The award was presented at the 19th Annual PACT Enterprise Awards ceremony in May 3, 2012 at the Hilton Philadelphia. UE LifeSciences, another BIOMED spinoff firm, was selected to receive a Life Sciences Startup award at the ceremony as well. In addition, Pennsylvania BIO, the trade organization of life science companies in Pennsylvania, selected the Infrascanner for the 2012 Patient Impact Award at its Annual Gala meeting on March 20, 2012.

