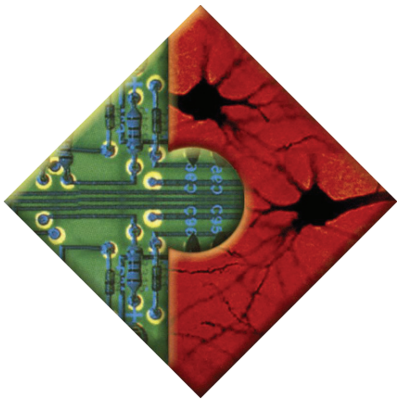
2011

Commencement and Honors Celebration

"Innovation and Partnership"

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.

COMMENCEMENT and HONORS CELEBRATION

Friday, June 10, 2011. 12:30 PM

Third Floor Atrium – Bossone Research Enterprise Center
{Bossone is located at 31st and Market Streets}

Program of Events

WALK OF FAME POSTER VIEWING AND RECEPTION 12:30 PM

RECOGNITION PROGRAM AND LUNCHEON 1:00 PM

WELCOME AND GREETING by Dr. Banu Onaral, Director
Theme: "Innovation and Partnership"

SPECIAL RECOGNITIONS

Leadership Awards

- Presidential Partner Award – John A. Fry
- Innovation Leadership Award – Hun H. Sun

Academic Awards

- Academic Innovation Award – Fred Allen
- Faculty Innovation Award – Elisabeth Papazoglou
- Doctoral Innovation Award – Hasan Ayaz
- Translational Research Innovation Award – Davood Tashayyod
- Technology Commercialization Innovation Award – Alexey Melishchuk
- Senior Design Innovation Award – Matt Boldt, Mary Kain, Jonathan Neafsey, and Nick Pashos
- Senior Design Partner Award – Dolores Conover
- Undergraduate Innovation Award – Jessica Falcon
- Service through Innovation Award – Chirag Patel
- Graduate Research Innovation Award – Hasan Ayaz
- Teaching Assistant Partner Award – Chetana Sunkari

- Work Study Partner Award –
  Arpit Shah, Marcus Payne and Nick Pashos

International Partner Awards

- Commercialization Partner Award –
  NetScientific, represented by David Gough and Farad Azima
- International Programs Partner Award – Julie Mostov
- International Innovation Partner Award – Peter Lelkes

Economic Development Partner Awards

- Technology Commercialization Partner Award –
  RoseAnn Rosenthal
- Regional Health Innovation Partnership Award –
  Christopher Laing

PRESENTATION OF GRADUATING STUDENTS

REMARKS BY GRADUATING STUDENTS

- Undergraduate Student Speaker – Arpit Shah
- Graduate Student Speakers – Josa Hanzlik and Chetana Sunkari

STUDENT AWARDS AND HONORS

- Walk of Fame Poster Winners
- Student Accomplishments and Highlights

FACULTY AND STAFF AWARDS AND HONORS

- Faculty and Staff Accomplishments and Highlights

CLOSING REMARKS by Fred Allen and Margaret Wheatley

GRADUATING CLASS OF 2011

Undergraduate Students
BS in Biomedical Engineering

Tijo Abraham
Jawadali Gulamhusain Ahmed
Kevin Alker
Aida Anzabi
Adam Averbuch
Jessica M. Ball
Rachel J. Benway
Cameron Terry Birch
Matt F. Boldt
Dana J. Bonfiglio
Brian T. Brooks
Matthew T. Bui
Ja'Shon Cade
Aaron Gia-Li Chou
Catherine R. Chwastek
Alexis Ciccarelli
Jen Rajan Daniel
Veerpal Kaur Dhillon
Phuong N. Diep-Lam
Amymerin Emmanuel
Jessica Mercedes Falcon
Naera Fatema
Daniel S. Feltyberger
Patrick Shamus Fenningham
Michael Patrick Fraher
Jessica Manuel Franklin
Krystle Mae Gaco
Natalie Ann Gostola
Denitsa Marinova Hristova
Daniel Hwang
Lauren Jo Jablonowski
Megha A. Kamath
Ravi Khatri
David LaBarca
Kirsten D. Lehmuller
Steven Frank Leonhardt
Selyna Ngoc Mai
Kevin Mak
Misha Mehta
Mark W Mekaiel
Mark Moldavsky
Nicholas Richard Myslinski
Ankur Nagpal
Ankita Narayan
Jonathan M. Neafsey
John H. Olkowski
Madeline Irene Olsen
Purva U. Pandya
Nicholas C. Pashos
Akhil R. Patel
Chirag G. Patel
Roshen B. Patel
Marcus Ryan Payne
Phitha Philip
Kiran S. Phuyal
Alexander Clyde Plushanski
Geena Susan Rajan
Avinash Ravilla
Veronica S. Rosa
Arpit D. Shah
Preethem Srinath
Thomas John Sweeney
Madeeha T. Syed
Gregory Nicholas John Tatusko
Ritika Trikha
Deepthi Vemanath
Mark Nicholas Wright

GRADUATING CLASS OF 2011

Graduate Students

MS in Biomedical Science

Mariam M. Albahrani
Justin M. Menda
Jonathan Minh Tam Nguyen
Craig Thomas

MS in Biomedical Engineering

Jawadali Gulamhusain Ahmed
Doruk Baykal
NagarajaRachel J. Benway
Brian T. Brooks
Ja'Shon Cade
Harneet K. Chana
Benjamin H. Chang
Shwetanaidu Chitoor
Catherine R. Chwastek
Stephen H. Cicchini
Michael Cochran
Jen Rajan Daniel
Andrew Carter Erwin
Feba R. Finny
Rajarshi Ganguly
Natalie Ann Gostola
Adam Justin Greenspan
Denitsa Marinova Hristova
Lauren Jo Jablonowski
David J. Jaekel
Zhengyu Jiang
Depinder Kaur Khaira
David LaBarca
Steven Frank Leonhardt
Daniel W. MacDonald
Selyna Ngoc Mai
Misha Mehta
Sayed Naseel Mohamed Thangal
Mark Moldavsky
Jonathan M. Neafsey
Vy Ngoc Nguyen
Thao H. Nguyen
Madeline Irene Olsen
Sonam N. Patel
Phitha Philip
Kiran S. Phuyal
Rehman Ahmed Qureshi
Anusha Rajan
Geena Susan Rajan
Abhishek Shrinath Rao
Aybike Saglam
Archana Sidalaghatta
Preethem Srinath
Qiang Tu
Robert John Wimmer, Jr.
Mark Nicholas Wright

GRADUATING CLASS OF 2011

Graduate Students

PhD in Biomedical Science

Roberto Buccafusca
Chengxiang Fan
Zhenyu Huang

PhD in Biomedical Engineering

Hasan Ayaz
Ryan M. Baxter
Glenn Booker
Robert D. Flint III
Khaldoun Chaouki Hamade
Jingjia Han
Oluseeni Aramide Komolafe
Leko Lin
Takashi Nakamura
Michael T. Neidrauer
Carolyn Michelle Roposh
Steven A. Rundell
Mahdi Sarmady
Ubong Ime Udoekwere
Hongmiao Zhang

STUDENT AWARDS AND HONORS
SPECIAL STUDENT RECOGNITIONS

WALK OF FAME POSTER WINNERS

Josa Hanzlik – First Prize for Sensors and Signals Poster Category: 4th Annual Drexel Engineering Graduate Research Symposium
Poster: "Insights into Cardiac Pacemaker and Defibrillator Revision/Upgrades" (Advisor: S. Kurtz).

Michael Cochran – First Prize for Graduate Student Category: 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley Poster Competition
Poster: "In Vitro Characterization of Docetaxel Loaded Microbubbles for Ultrasound Triggered Drug Delivery" (Advisor: M. Wheatley).

Lorenzo Albala – First Prize for Undergraduate Student Category: 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley Poster Competition
Poster: "Plasma Sterilization of Ultrasound Contrast Agents" (Advisor: M. Wheatley).

Giang Au – Award Winner Graduate Student Category for Biology and Biomedical: Drexel Research Day 2011
Poster: "Aqueous Cd1-xPbxS Quantum Dots for Near Infrared Imaging" (Advisors: W.Y. and W.H. Shih).

Nicola Francis – Award Winner for "Best Research Poster" and "Popular Poster by Student Peers": BIOMED 2010 Biomedical Talent & Technology Poster Showcase
Poster: "Immobilization of Chondroitinase ABC to Alginate for Glial Scar Degradation" (Advisor: M. Wheatley).

Michael Cochran – First Prize for Student Poster Competition: 2010 Discovery to Commercialization – Nanotechnology Institute (NTI) & Energy Commercialization Institute (ECI)
Poster: "Halting Tumor Growth using a Drug Loaded Polymer Contrast Agent" (Advisor: M. Wheatley).

STUDENT AWARDS AND HONORS
STUDENT ACCOMPLISHMENTS AND HIGHLIGHTS

Zahra Ahmed, Olga Zielinska, and Lauren Jablonowski Receive 2011 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 2010–2011 academic year:

- Dean J. Peterson Ryder Award for Women Juniors ($1K each): Olga Zielinska and Zahra Ahmed
- Marilyn A. Burshtin Memorial Award ($3K): Lauren Jablonowski

Lorenzo Albala Wins First Prize in the Undergraduate Student Category of the 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley Poster Competition

Lorenzo Albala, BS/MS student in BIOMED (Advisor: M. Wheatley), won first prize in the undergraduate student category of the 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley student poster competition for the project "Plasma Sterilization of Ultrasound Contrast Agents."

Krishna Arjunan, Danielle Solomon Figueroa, Camilla Nix, Steve Kemeny and Teammates Raise Funds for the AHA 2010 Philadelphia Start Heart Walk

Krishna Arjunan, Dannielle Solomon Figueroa, Manuel Figueroa, Camilla Nix, and Steve Kemeny, all graduate students in BIOMED (Advisor: A. Clyne), and other team members from Drexel's Vascular Kinetics Lab (VKL) raised over $3K at the American Heart Association (AHA) 2010 Philadelphia Start Heart Walk on November 13, 2010.

Giang Au Receives Graduate Student Poster Award at Drexel Research Day

Giang Au, Ph.D. candidate in BIOMED (Advisors: W.Y. and W.H. Shih), and S-Ja Tseng (Co-Author) won the poster award for Graduate Students in Biology and Biomedical category at Drexel Research Day 2011 for the project "Aqueous Cd1-xPbxS Quantum Dots for Near Infrared Imaging."

Bahareh Barati Receives Scholarship Award To Attend the 30th Annual American Pain Society Scientific Meeting

Bahareh Barati, graduate student in BIOMED (Advisor: K. Pourrezaei), received a scholarship award to attend a conference on "Fundamentals of Pain Management: A Primer for Residents and Fellows Course" at the 30th Annual American Pain Society Scientific Meeting, May 17–21, 2011 in Austin, TX.

Rosemary Bastian Receives a Schlumberger Foundation Faculty for the Future Fellowship Award

Rosemary Bastian, Ph.D. candidate in BIOMED (Advisor: E. Papazoglou and I. Chaiken), received a Faculty for the Future Fellowship Award from the Schlumberger Foundation for the duration of her doctoral studies. Schlumberger fellowships are awarded to women academics in science and engineering from developing and emerging countries, and provide funding for advanced graduate study at top universities abroad.

Matt Boldt, Mary Kain, Jonathan Neafsey, and Nick Pashos Win First Place Prize in the 2011 BIOMED Senior Design Competition

Matt Boldt, Mary Kain, Jonathan Neafsey, and Nick Pashos, all undergraduate students in BIOMED (Advisors: M. Wheatley and U. Wegst), won the First Place Prize in the 2011 School of Biomedical Engineering, Science, and Health Systems Senior Design Competition for the project "Freeze Cast Alginate Scaffold for Directional Cell Growth." The team went on to represent the School at the College of Engineering (CoE) Senior Design Competition on June 2, 2011 in the Mitchell Auditorium of the Bossone Research Enterprise Center. The two Runner-Up teams are listed below:

Runner-Up Team 1: "NonDesign of a Non-Viral Gene Delivery System Using Polymer-based Microbubbles for Targeting Genetically Treatable Medical Conditions"
Members: Jen Daniel, Michael Fraher, Geena Rajan, and Arpit Shah.
Advisor: Margaret Wheatley

Runner-Up Team 2: "Automated Controller Platform to Simulate Blood Glucose Control in Type-1 Diabetics"
Members: Jessica Ball, Patrick Fenningham, Kirsten Lehmuller, and Nicholas Myslinski.
Advisors: Moshe Kam and Brian Hipszer

Gregory Botta Wins an NIH Ruth L. Kirschstein National Research Service Award (NRSA)

Gregory Botta, graduate student in the BIOMED-DUCoM MD/PhD program (Advisor: P. Lelkes), received an NIH Ruth L. Kirschstein National Research Service Award (NRSA) of $200K over a 3-year period to cover tuition and other costs for the project "Development and Characterization of a Novel, 3-D Human Primary Pancreatic Epithelial Model in Inflammation and Cancer." Additional distinctions:

- Selected to receive a travel fellowship to attend the Federation of European Biochemical Societies (FEBS) Advanced Lecture Course for Matrix Pathobiology, Signaling and Molecular Targets in Spetses, Greece, September 2–7, 2011.

- Selected to chair the American Physician Scientists Association (APSA) 7th Annual Meeting, April 15–17, 2011 in Chicago, IL.
- Received a Lindau Meeting of Nobel Laureates Travel Award to attend the meeting of Nobel Laureates in Lindau, Germany in Summer 2011.
- Received a $750 Office of International Programs International Travel Award for the International Forum on Perspectives in Cancer Research and Treatment in Paris, France, November 3–9, 2010.
- Received a Drexel University College of Medicine Biomedical Graduate Studies Bondi Fellowship Award for Excellence in Research for the period 2010–2011 for his cumulative contributions to scientific research at Drexel University.
- Won the First Place Prize for Outstanding Platform Presentation at the 2010 Drexel Discovery Research Day for the presentation "K-Ras Activation of ERK2 in Pancreatic Cells Regulates Invasion via Induction of MMP1 & TIMP1" (Co-authors: M. Reginato, A. Rustgi, and P. Lelkes).

Anant Chopra Receives a Robert and Genevieve E. Lifshin Endowed Graduate Fellowship

Anant Chopra, doctoral student in BIOMED (Advisor: Y. Kresh), received a 2010–2011 Robert and Genevieve E. Lifshin Endowed Graduate Fellowship of $1.367K. The fellowship provides scholarships to qualifying students enrolled in the School of Biomedical Engineering, Science and Health Systems graduate program. Additional distinctions:

- Presented the paper "Engineered Extracellular Matrix Bioactivity and Mechanics Modulate Cardiac Myocyte Phenotype" at the American Heart Association's Surgical Treatment of Heart Failure, Transplantation, and Arrhythmias Platform presentation and meeting in Chicago, IL, November 15, 2010.

Cassondra Clawson, Mary Kain, Juliana Demarici and Teammates Win First Place in the 2010 Henley Women's Regatta Crew Competition

Cassondra Clawson, Mary Kain, both recent graduates in BIOMED, and Juliana Demarici, undergraduate student in BIOMED, won first place in the prestigious 2010 Henley Women's Regatta crew competition in Henley-on-Thames, England, June 18–20, 2010. The team members were honored at a reception at the Drexel University Club on August 4, 2010. Only three other U.S. schools have ever won the Henley Women's Regatta – Yale, Brown, Radcliff – and now, Drexel.

Michael Cochran Wins First Prize in the Graduate Student Category of the 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley Poster Competition

Michael Cochran, Ph.D. candidate in BIOMED (Advisor: M. Wheatley), won first prize in the graduate student category of the 2011 International Society of Pharmaceutical Engineers (ISPE) Delaware Valley student poster competition for the project "In Vitro Characterization of Docetaxel Loaded Microbubbles for Ultrasound Triggered Drug Delivery" (Co-authors J. Eisenbrey, T. Bustamante, and M. Wheatley). Additional distinction:

- Won First Prize in the student poster competition at the 2010 Discovery to Commercialization NTI (Nanotechnology Institute) & ECI (Energy Commercialization Institute) Conference, presented by Ben Franklin Technology Partners of Southeastern Pennsylvania, for the project "Halting Tumor Growth using a Drug Loaded Polymer Contrast Agent" (Co-authors: J. Eisenbrey, M. Soulen, and M. Wheatley).

Marko Dimiskovski Receives Mozambique Development in Motion (MDIM) Travel Grant to Provide Clinical Assistance in Mozambique

Marko Dimiskovski, BS/MS student in BIOMED (Advisor: P. Lelkes), received a $750 travel grant from Mozambique Development in Motion (MDIM) to provide clinical assistance in Mozambique as part of Drexel's weServe program. The grant was awarded in conjunction with the program receiving a $2.5K MDIM award.

Nicola Francis Wins the "Best Research Poster" and "Popular Poster by Student Peers" Awards at the BIOMED 2010 Biomedical Talent & Technology Poster Showcase

Nicola Francis, graduate student in BIOMED (Advisor: M. Wheatley), won the "Best Research Poster" and the "Popular Poster by Student Peers" Awards at the BIOMED 2010 Biomedical Talent & Technology Poster Showcase at the Bossone Research Enterprise Center, November 3, 2010, for the poster "Immobilization of Chondroitinase ABC to Alginate for Glial Scar Degradation." Nicola received $500 and $250 for each award, respectively.

James Goodman and Lorenzo Albala Are Selected To Present at the National Conference on Undergraduate Research (NCUR) 2011

James Goodman and Lorenzo Albala, both undergraduate students in BIOMED (Advisors: M. Wheatley and K. Moxon, respectively), were selected to present at the National Conference on Undergraduate Research (NCUR) 2011 at Ithaca College, March 31–April 2, 2011 for the projects "Epidural Electrical Stimulation and Response Mapping for the Restoration of Controlled Hind Limb Movement after Complete Spinal Cord Injury" and "Gas Plasma Sterilization of Surfactant-Based Ultrasound Contrast Agents," respectively.

Josa Hanzlik Wins First Prize in the Sensors and Signals Poster Category at the 4th Annual Drexel Engineering Graduate Research Symposium
Josa Hanzlik, Ph.D. candidate in BIOMED (Advisor: S. Kurtz) won first prize in the Sensors and Signals category for the poster titled "Insights into Cardiac Pacemaker and Defibrillator Revision/Upgrades" at the 4th Annual Drexel Engineering Graduate Research Symposium, May 11, 2011 in the Bossone Research Enterprise Center.

Walter Hinds, Camila Nix, and David Diaz Each Receive a Greater Philadelphia Region Louis Stokes Alliance for Minority Participation (LSAMP) Bridge to the Doctorate (BTD) Program Fellowship Award
Walter Hinds, Camila Nix, and David Diaz, all incoming doctoral students in BIOMED, each received a $30K per year Greater Philadelphia Region Louis Stokes Alliance for Minority Participation (LSAMP) Bridge to the Doctorate (BTD) fellowship award, sponsored by the National Science Foundation and Drexel University.

Lauren Jablonowski and Nick Pashos Serve as Judges at a FIRST® LEGO® League Robotics Qualifying and Regional Tournament
Lauren Jablonowski, BS/MS student in BIOMED (Advisor: F. Allen), and Nick Pashos, undergraduate student in BIOMED, (Advisor: M. Wheatley and M. Shanbhag), served as judges at a FIRST® LEGO® League Robotics qualifying competition on January 8, 2011 in Kennett Square, PA, and at the regional tournament on January 22, 2011 at U. of Delaware. Additional distinctions:

- Served as a mentor for the Swedesboro-Woolwich School District Robotics Team in Gloucester County, NJ and served as a guest lecturer for the anatomy classes at the Padua Academy in Wilmington, DE on December 17, 2010.
- Elected President of Drexel's Eta Theta chapter of Order of Omega for September 30, 2010–June 30, 2011.

Alexa Karkenny Receives Jenzabar Foundation Award on behalf of the weServe Program
Alexa Karkenny, BS/MD student in BIOMED, received a $2.5K award for service on behalf of Drexel's weServe program from the Jenzabar Foundation in Nashville, TN on June 1–2, 2011. The Foundation is a public charity whose mission is to recognize and support the good works and humanitarian efforts of student leaders serving others across the global community. The weServe motto 'Service through Innovation' is inspired by the Wallace H. Coulter Foundation's motto 'Science serves humanity.'

Anitha Manohar Receives Travel Award To Attend the IEEE/Engineering in Medicine and Biology Society (EMBS) Conference on Neural Engineering
Anitha Manohar, graduate student in BIOMED (Advisor: K. Moxon), received a

travel award for the paper "Role of Neuronal Plasticity after Spinal Cord Injury for Neurorobotic Control," submitted for the IEEE/EMBS Conference on Neural Engineering, April 27–May 1, 2011 in Cancun, Mexico.

Emily Mathews Receives Travel Award To Present at the 7th Annual Injury Biomechanics Symposium
Emily Mathews, graduate student in BIOMED (Advisor: S. Balasubramanian), received a travel award to present the paper "Electromyography Responses of Pediatric and Adult Volunteers in Low Speed Frontal Impacts" at the 7th Annual Injury Biomechanics Symposium, May 23–24, 2011 in Columbus, Ohio. She also served as a moderator for the poster session at the symposium. Additional distinction:

- Presented the paper "Electromyography Responses of Pediatric and Adult Volunteers in Low Speed Frontal Impacts" at the Japanese Society of Automotive Engineering Annual Congress, May 18–20, 2011 in Pacifico Yokohama, Japan.

Xu Meng Receives a 2011 IEEE Microwave Theory and Technique Society (MTT-S) Graduate Fellowship for Medical Applications
Xu Meng, Ph.D. candidate in BIOMED (Advisor: A. Rosen), received an IEEE Microwave Theory and Technique Society (MTT-S) Graduate Fellowship for Medical Applications for 2011. Xu will receive $6K in financial support and up to $1K in travel support to attend the IEEE International Microwave Symposium where he will receive his award at the annual Student Luncheon.

Pavithra Ramakrishnan Receives an NSF East Asia and Pacific Summer Institutes (EAPSI) Fellowship
Pavithra Ramakrishnan, graduate student in BIOMED (Advisor: A. Kriete), received an NSF East Asia and Pacific Summer Institutes (EAPSI) fellowship to travel to China in the Summer of 2011 for the project "Characterization of Micro RNAs Involved in Medullary Thymic Epithelial Cell (mTEC) Development." The fellowship includes a $5K stipend and also covers living and travel expenses.

Erin Reichenberger Is Selected as an NSF Fellow To Attend the 10th International Summer School on Biocomplexity from Gene to System
Erin Reichenberger, Ph.D. candidate and Calhoun Fellow in BIOMED (Advisors: R. Seliktar and G. Rosen), was selected as a National Science Foundation (NSF) Fellow to attend the 10th international Summer School on Biocomplexity from Gene to System, July 3–9, 2010 in Istanbul, Turkey.

Steven Rundell Wins 2010 American Society for Testing and Materials (ASTM) Student Paper Competition
Steven Rundell, graduate student in BIOMED (Advisor: S. Kurtz), won the 2010 American Society for Testing and Materials (ASTM) Student Paper Competition

for the paper "Derivation of Clinically Relevant Boundary Conditions Suitable for Evaluation of Chronic Impingement of Lumbar Total Disk Replacement: Application to Standard Development" (Co-authors S. Kurtz; R. Siskey, J. Day, J. Isaza, and D. MacDonald). Steven presented his paper at the ASTM F04 Symposium, November 16, 2010 in San Antonio, TX.

Jasmine Saini Receives Travel Scholarship To Attend the 6th Summer School on Computational Immunology 2011 at Yale University

Jasmine Saini, Ph.D. candidate in BIOMED (Advisor: U. Hershberg), was awarded a $500 travel scholarship to attend the 6th Summer School on Computational Immunology 2011. The funding is offered by PRIME (Program for Research on Immune Modeling and Experimentation), a National Institute of Allergy and Infectious Diseases (NIAID) funded project.

Gozde Senel Wins International Travel Award to Present a Paper on Tissue Engineering and Regenerative Medicine at an International IEEE Conference

Gozde Senel (Advisor: P. Lelkes), won an International Travel Award from Drexel's Office of International Programs to present the paper "Textile-Templated Electrospun Anisotropic Scaffolds for Tissue Engineering and Regenerative Medicine" (Co-authors: P. Lelkes, A. Perets, D. Brookstein, and M. Govindaraj) at the 32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society in Buenos Aires, Argentina on September 1, 2010.

Tushar Sethi, Nithya Thambi, Dheeraj Roy and Senior Design Teammates Win the Silver Award in the James F. Lincoln Arc Welding Foundation 2010 Award Program

Tushar Sethi, Nithya Thambi, both undergraduate students in BIOMED, and Dheeraj Roy, BS/MS student in BIOMED (Advisor: K. Barbee), and teammates Lonnie Snyder, Stephen, and U. Kei Cheang (all from MEM), won the Silver Award (2nd place in Division IV) and the Merit Award (4th place in Division IV) at the 2010 National Competition sponsored by the James F. Lincoln Arc Welding Foundation. The teammates shared the Silver Award ($125 per student) for their project "Biologically Inspired Robotic Microswimmers." The goal of the project was the construction and testing of a biomimetic, microscale drug delivery system with active propulsion.

Collin Stabler Receives National Aeronautics and Space Administration Graduate Student Research Program (NASA GSRP)

Collin Stabler, Ph.D. candidate in BIOMED (Advisor: P. Lelkes), was awarded a 1-year $30K fellowship from the National Aeronautics and Space Administration Graduate Student Research Program (NASA GSRP) for the project "Enhanced Differentiation of Mouse Embryonic Stem Cells in NASA-Developed Rotating Wall Vessel (RWV) for Pulmonary Tissue Engineering and Regenerative Medicine." Collin will also receive a $6K stipend beginning August 1, 2011 for the 10 weeks he will work at the Johnson Space Center in Houston, TX.

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

BIOMED Faculty Members Receive 2011 Wallace H. Coulter Translational Research Grants
The following BIOMED faculty members received a 2011 Wallace H. Coulter Translational Research Grant:

Dr. Greg Fridman, Research Assistant Professor in BIOMED, Dr. Richard Hamilton (CoM), Dr. Suresh Joshi (CoM), and Dr. Mark Ingerman (Lankenau Hospital), received $100.4K in Coulter funding for the project "Fast Plasma-assisted Hand Disinfection or Sterilization System."

Dr. Elisabeth Papazoglou, Associate Professor in BIOMED, and Dr. Jouni Uitto (Thomas Jefferson University), received $100K in Coulter funding for the project "Syk Kinase as a Biomarker of Skin UV Damage and Photocarcinogenesis."

Dr. Wan Y. Shih, Associate Professor in BIOMED, Dr. Wei H. Shih (MES), Dr. Vanlila (CoM), and Dr. Ari Brooks (CoM), received $120K in Coulter funding for the project "Near Infrared Quantum Dots for Clear Margin Determination during Breast Cancer Surgery."

Dr. Peter Lelkes, Calhoun Chair Professor of Cellular Tissue Engineering in BIOMED, Dr. Norman Johanson (CoM), Dr. Jack Zhou (MEM), Dr. Yury Gogotsi (MSE), and Dr. Kurt Hankenson (University of Pennsylvania), received $100K in Coulter funding for the project "SST – Smart Surgical Tools: Bioactive Surgical Fixation."

Dr. Kurtulus Izzetoglu, Research Assistant Professor in BIOMED, Dr. Kambiz Pourrezaei, Professor in BIOMED, Dr. George Mychaskiw II (CoM), and Dr. James Reynolds (CoM), received $50K in Coulter funding for the project "Functional Near-infrared Spectroscopy as a Monitor for Depth of Anesthesia."

Dr. Karen Moxon, Assistant Professor in BIOMED, received $37.9K in Coulter funding for the project "Short Term Chronic Recordings in Humans to Verify Seizure Prediction Algorithm."

Dr. Fred Allen Appears in PR.com Article on the Annual Frontiers in Education Conference
Dr. Fred Allen, Assistant Professor and Associate Director for Undergraduate Studies in BIOMED, appeared in a December 6, 2010 PR.com article on the annual Frontiers in Education Conference, held in Arlington, VA, October 27–30, 2010.

Dr. Hasan Ayaz Wins the Design of Medical Devices (DMD) Three-in-Five Award for InfraScanner Design
Dr. Hasan Ayaz, Research Assistant Professor in BIOMED, won the Design of Medical Devices (DMD) Three-in-Five award at the Medical Device Design Conference in Minneapolis, Minnesota, April 12–14, 2011. Dr. Ayaz's winning entry described the design of InfraScanner, a hand-held, point-of-care device to detect bleeding in traumatic brain injury.

Dr. Sriram Balasubramanian Gives an Invited Lecture at the 2011 Advances in Child Injury Prevention Conference
Dr. Sriram Balasubramanian, Assistant Professor in BIOMED gave an invited lecture titled "Pediatric Thorax Geometry and Relationship to Anthropomorphic Test Device (ATD) Thorax Geometry" at the 2011 Advances in Child Injury Prevention conference in Plymouth, MI, May 13, 2011.

Dr. Ken Barbee and Colleagues Receive an NIH grant for Their "Mechanisms of Injury and Acute Repair of Axons in TBI" Project
Drs. Ken Barbee, Associate Professor in BIOMED (PI), Ramesh Raghupathi (Co-PI – CoM), and Gianluca Gallo (Co-PI – CoM), received a 3-year $920K R01 NIH grant for the project "Mechanisms of Injury and Acute Repair of Axons in TBI." The project addresses the acute structural and functional consequences of axonal injury.

Dr. Chang Chang and Takashi Nakamura Publish Paper for Inclusion in the Book "Microscopy: Science, Technology, Applications and Education"
Dr. Chang Chang, Adjunct Professor in BIOMED, and Takashi Nakamura, graduate student in BIOMED, published the paper "Partially Coherent Image Formation Theory for X-ray Microscopy" for inclusion in the Microscopy Book Series "Microscopy: Science, Technology, Applications and Education."

Drs. Gregory Fridman, Marla Steinbeck and A.J. Drexel Plasma Institute Team Members Receive National Institutes of Health (NIH) Grant for Plasma Medicine
Dr. Gregory Fridman, Research Assistant Professor in BIOMED and Co-Director of the Plasma Biology and Medicine Lab, A.J. Drexel Plasma Institute (PI), Dr. Marla Steinbeck, Research Associate Professor in BIOMED (Co-PI), Dr. Alex Fridman, and Gary Friedman (both Co-PI's from CoE) and the A.J. Drexel Plasma Institute received a 4-year $1.6M NIH R01 grant for Plasma Medicine: "Non-Thermal Plasma in Biomedicine: A New Paradigm for Redox Cell Activation" to analyze plasma-generated reactive oxygen species and their influence on cells and animals for bone regeneration and repair. Additional distinction:

- Dr. Fridman received a 1-year $60K gift grant from Johnson & Johnson for the project "Plasma Sterilization of Open Wound Tissue in a Rabbit Spine Surgery Model."

Dr. Uri Hershberg Gives an Invited Presentation at the Max Plank Institute in Dresden, Germany
Dr. Uri Hershberg, Assistant Professor in BIOMED, gave an invited presentation on "Title B Cell Repertoire Movement in the Codon Network – Towards a Complex Systems Model of B Cell Repertoire Diversity and Its Evolution" at the symposium "Physics of Immunity: Complexity Approach (PICA)" at the Max Plank Institute in Dresden, Germany, April 4–8, 2011.

Dr. Dov Jaron Is Appointed as a Delegate to the Executive Board of the World Health Organization
Dr. Dov Jaron, Calhoun Distinguished Professor of Engineering in Medicine in BIOMED, was appointed as a delegate to the Executive Board of the World Health Organization (WHO) to represent the biomedical engineering community. He attended the WHO meeting in Geneva, Switzerland on January 17–25, 2011. Additional distinctions:

- Invited as a member of the Executive Board of the International Council for Science (ICSU) to participate in the opening ceremony of the International Congress on Soil Science in Brisbane, Australia, August 1, 2010 and participated in a special workshop giving a presentation on Food Security and Health.

- Gave a keynote address titled "Using Systems Modeling to Analyze Transport Mechanisms in the Microcirculation" at the BIT Life Sciences 3rd Annual 2011 World BioSoft Congress in Beijing, China, March 23–25, 2011.

Shirin Karsan Publishes Book Chapter in "Islam and Bioethics"
Shirin Karsan, Manager of the weServe Program in BIOMED, published the chapter titled "The Influence of Islam in the Use of Assisted Reproduction Technologies (ART) in the United Arab Emirates (UAE) and How it Shapes the Decision-making Processes of Emirati Families Using Modern Technologies" in the book "Islam and Bioethics" (authors B. Arda and V. Rispler-Chaim). The chapter portrays some of the results of Shirin's Fulbright research, presented at the 3rd International Conference on Islam and Bioethics, in Manavgat, Antalya, Turkey. Shirin also presented her Fulbright research at Lankenau Hospital Grand Rounds and at the University of Pennsylvania's Center for Bioethics in April 2011.

Dr. Yasha Kresh Presents at the 5th International Workshop on Cardiac Mechano-Electric Coupling and Arrhythmias
Dr. Yasha Kresh, Research Director and Professor of Cardiothoracic Surgery in CoM and BIOMED, presented "The Multi-cellularly Coordinated Cardiac Myocyte Cytoskeleton Self-reorganization in Response to Topographically Generated Stress Fields" at the 5th International Workshop on Cardiac Mechano-Electric Coupling and Arrhythmias at the University of Oxford, England, August 30–September 4, 2010. Additional distinctions:

- Visiting professor at the Center for Arrhythmia Research and an invited speaker to discuss Frontiers in Cardiovascular Science: "Cardiac Mechanotransduction: From Sensing to Remodeling" at the University of Michigan Cardiovascular Center April 25, 2011.
- 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. Andres Kriete Publishes Paper on Systems Model of Aging in Public Library of Science (PLoS) Computational Biology
Dr. Andres Kriete, Associate Professor in BIOMED, published the paper "Rule-Based Cell Systems Model of Aging using Feedback Loop Motifs Mediated by Stress Responses" (Co-authors: W. Bosl and G. Booker) in the June 17, 2010 edition of Public Library of Science (PLoS) Computational Biology. It is believed that no such aging model has been published over the last 20 years. Additional distinction:

- Quoted in a June 18, 2010 DNAIndia.com article on his work showing how computer models using fuzzy logic could help scientists uncover the cellular mechanisms that the process of ageing. The story also appeared on Newswise, EurekaAlert, MedIndia, Sify and Science.

Drs. Steven Kurtz, Marla Steinbeck and Implant Research Center Team Members Receive Renewal of NIH Funded Hip Implant Research
Dr. Steven Kurtz, Research Associate Professor in BIOMED (PI), Dr. Marla Steinbeck, Research Associate Professor in BIOMED (Co-PI), and team members of the Biomed Implant Research Center (IRC) received a $2.9M 5-year renewal of its NIH funded hip implant research for the period April 1, 2011–March 31, 2016. The implant research program began at Drexel in 2000 and first received NIH funding August 2001. IRC research operations have since expanded to include the active participation of 10 orthopedic clinical centers in the US that prospectively supply the IRC with all manufacturers' orthopedic implants retrieved at revision surgery.

Drs. Ryszard Lec and Yasha Kresh Are Co-Inventors on a Patent Granted to Drexel University for "Acoustic Blood Analyzer for Assessing Blood Properties"
Dr. Ryszard Lec, Professor in BIOMED, and Electrical and Computer Engineering; Dr. Yasha Kresh, Professor of Cardiothoracic Surgery, Medicine and BIOMED and Research Director, Department of Cardiothoracic Surgery; and Dr. David M. Wootton, a former University faculty member, are co-inventors on a patent granted to Drexel University for "Acoustic Blood Analyzer for Assessing Blood Properties."

Dr. Peter Lelkes Is Awarded a Distinguished Visiting Fellowship to Imperial College by the Royal Society of Engineering

Dr. Peter Lelkes, Calhoun Chair Professor of Cellular Tissue Engineering in BIOMED, was awarded a Distinguished Visiting Fellowship to Imperial College by the Royal Society of Engineering to collaborate on lung tissue engineering research with Dame Julia Polak and Professor Tsakis Mantalaris. Additional distinctions:

- Participated in the First Annual World Congress of Nanomedicine in Beijing China, October 23–25, 2010, where he chaired the "Regenerative Medicine and Nanostructural Scaffolds in Tissue, Cell and Organ Engineering" track and presented a keynote lecture titled "Intelligent Nanosized Biomaterials for Tissue Engineering and Regenerative Medicine."
- Interviewed for the June 25th, 2010 Science Magazine Podcast on the topic "Engineered Lung Tissue."
- Quoted in a June 24, 2010 National Geographic article about the creation of a working lung replacement. The story also appeared in Nature and the MIT Technology Review.
- Interviewed for the article "Textile Legacy Leading to Biomedical Breakthroughs" for the Fall 2010 issue of Innovator Magazine on Biomedical Textile Engineering to discuss Dr. Lelkes' collaboration with Philadelphia University's Edward P. Marram Biomedical Textile Structures Laboratory.

Laurie Lenz Co-chairs the Middle Atlantic Career Counseling Association Annual Conference

Laurie Lenz, Academic Advisor in BIOMED, co-chaired the 40th annual Middle Atlantic Career Counseling Association (MACCA) conference "Reinventing Career Development: There's an App for That," December 7–10, 2010 in Lancaster, PA.

Dr. Peter Lewin Is Quoted in PhysOrg.com Article on Using Ultrasound To Treat Alzheimer's

Dr. Peter A. Lewin, Richard B. Beard Distinguished University Professor of Biomedical and Electrical and Computer Engineering, Director, Biomedical Ultrasound Research and Education Center, was quoted in an October 18, 2010 article in at PhysOrg.com about using ultrasound to treat Alzheimer's. The article also appeared on MailOnline.

Dr. Hualou Liang and Colleagues Publish Paper in the Journal Human Brain Mapping

Dr. Hualou Liang, Associate Professor in BIOMED, Jingyu Liu (Mind Research Network), Vince D. Calhoun (U. of New Mexico), Yong-Rui Zheng and Qiu-Hua Lin (both from Dalian University of Technology, China), published the paper "Semiblind Spatial ICA of fMRI using Spatial Constraints" in the July 1, 2010 issue of the journal Human Brain Mapping.

Dr. Banu Onaral Gives an Invited Talk on Translational Research in Optical Brain Imaging at the Frontiers of Knowledge Symposium in Shanghai, China

Dr. Banu Onaral, H. H. Sun Professor and Director, School of Biomedical Engineering, Science and Health Systems, gave an invited talk on "Translational Research in Optical Brain Imaging" at the Chinese Society of Biomedical Engineering (BME) 30th Anniversary Conference (BME30) in Beijing, China, December 2–4, 2010. Additional distinction:

- Gave an invited talk on "Translational Research in Optical Brain Imaging" at the Frontiers of Knowledge Symposium: Innovation in Biomedical Engineering and Information Technology at the Shanghai World Expo 2010 in Shanghai, China, August 8, 2010. The University of Sydney hosted the event in conjunction with the Med-X Research Institute of Shanghai Jiao Tong University.

Drs. Elisabeth Papazoglou's and Leonid Zubkov's Quantum Dot-based Diagnostic Technology Is Licensed to QLIDA Diagnostics

Dr. Elisabeth Papazoglou, Associate Professor, Dr. Leonid Zubkov, Research Professor, both in BIOMED, and Dr. Michael Weingarten (CoM), developed the quantum dot-based diagnostic technology that was recently licensed to QLIDA Diagnostics, which received $500K of funding support from Ben Franklin Technology Partners-Southeastern Pennsylvania (BFTP-SEP) and NetScientific, an early stage technology investment group from the UK. Additional distinction:

- Optical wound monitor technology developed by Drs. Papazoglou Michael Weingarten, Leonid Zubkov, Kambiz Pourrezaei, Michael Neidrauer, Linda Zhu and their respective teams to predict healing of chronic diabetic wounds in response to treatment was licensed to Emunamedica LLC. The device development was supported with funding from the Coulter Translational Research Partnership and the Science Center's QED Program.
- Quoted with Dr. Zubkov in an August 19, 2010 Philadelphia Business Journal article and a Philadelphia Inquirer article on the funding of a new diabetes treatment technology.

Dr. Kambiz Pourrezaei and Colleagues Receive the Lireka P. Joseph Award for Excellence in Public Health Communication and Education

Dr. Kambiz Pourrezaei, Professor in BIOMED, and colleagues R. Chapman, B. Fitzgerald, R. Kaye, A. Taylor, and S. Weininger received the Lireka P. Joseph Award for Excellence in Public Health Communication and Education. The group was recognized for developing a groundbreaking graduate-level course in medical device product development and for its dedication to excellence in accomplishing the mission of the Center for Devices and Radiological Health (CDRH)–FDA. Dr. Pourrezaei will receive the award on behalf of the group at the CDRH Employee Recognition Ceremony on June 30, 2011 at the CDRH Campus in Silver Spring, MD. Additional distinction:

- Gave an invited talk on "Nanotechnology, Biomarkers and Biosensors" at the Indo-US Workshop on Nano-Ultrasonics, January 12–14, 2011 in Trichy, India.

Drs. Arye and Harel Rosen Receive Bill and Melinda Gates Foundation Grant

Dr. Arye Rosen, Academy Professor of Biomedical and Electrical Engineering, and Harel Rosen, MD, Research Associate Professor in BIOMED, received a $100K grant from the Bill & Melinda Gates Foundation to pursue bold ideas for transforming health in developing countries. The Rosens' work was among only 65 grants awarded from more than 2,400 applicants and features a low-cost, solar-powered portable blanket that can provide light therapy to jaundiced infants. The project was featured in a December 20th, 2010 article in the Philadelphia Inquirer.

Drs. Rami Seliktar and Peter Lelkes Are Elected to the American Institute for Medical and Biological Engineering (AIMBE) College of Fellows

Drs. Rami Seliktar, Professor and Vice Director of BIOMED, and Peter Lelkes, Calhoun Chair Professor of Cellular Tissue Engineering in BIOMED, were 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. Additional distinction:

- Dr. Seliktar served on the program committees of two international conferences: 1) Biodevices 2011, International Conference on Biomedical Electronics and Devices, January 26–29, 2011 in Rome, Italy; and 2) the International Conference of Applied Biodevices and Biomechanics I (ICABB) 2010 in Venice, Italy, October 14–16, 2010.

Dr. Wan Shih's and Her Team's Portable Breast Cancer Detection Device Is Licensed by UE LifeSciences

Dr. Wan Shih, Associate Professor in BIOMED, Dr. Wei-Heng Shih, Professor in MSE, and their team's portable breast cancer detection device was licensed by UE LifeSciences, a Philadelphia-based medical device company. The project "Portable, Low-Cost, Radiation-Free Breast Cancer Detector for Dense Breasts" (W.Y. Shih, A. Brooks, W.H. Shih, and L. Komarnicky) received a $200K University City Science Center QED award in Fall 2009. The project also received support from the Drexel–Coulter Translational Research Program. Dr. Shih was quoted in a December 15, 2010 FlyingKite.com article on the project, as well.

Dr. Elliot Sloane Gives Presentation on Health Information Interoperability at the Drug Information Association (DIA) 46th Annual Meeting
Dr. Elliot Sloane, Research Associate Professor and Director of Health Systems Engineering in BIOMED, presented "Health Information Interoperability" at the Drug Information Association (DIA) 46th Annual Meeting on Facilitating Innovation for Better Health Outcomes in Washington, DC, June 14, 2010. Additional distinction:

- Participated in a roundtable discussion titled "Current State of Wireless Health & Lessons Learned" at the Federal Communications Commission (FCC) in Washington, DC, July 26, 2010.

Dr. Aydin Tozeren and Yichuan Liu Are Highlighted in the Online Publication PLoS One
Dr. Ayden Tozeren, Professor and Director of Integrated Bioinformatics in BIOMED, and Yichuan Liu, doctoral student in BIOMED (Advisor: A. Tozeren), were highlighted in the September 27, 2010 edtition of PLoS One, an international, peer-reviewed, open-access, online publication. Dr. Tozeren and Yichuan reported in PLoS One that "SNPs that fall on protein domains are highly statistically enriched among SNPs linked to hereditary disorders and complex diseases."

Drexel University Receives a Wallace H. Coulter Foundation Award to Endow the Drexel-Coulter Translational Research Partnership Program
Drexel University was awarded $10 million by the Wallace H. Coulter Foundation to endow the Drexel-Coulter Translational Research Partnership program. The University matched the Coulter Foundation's grant creating a $20 million endowment to bring life saving solutions to clinical practice by moving promising biomedical discoveries to commercialization. The new endowment will help Drexel enable the Philadelphia region to become a national hotbed of medical device development and build a global network of collaboration between academia and business. Innovations that received support through the Coulter Foundation's translational research partnership with Drexel's School of Biomedical Engineering, Science and Health Systems (BIOMED) and College of Medicine that began in 2006, have already been licensed. Coulter Endowment Celebrations took place on April 25–26, 2011, together with partners from the academia, industrial, entrepreneurial and business community. The Coulter Translational Research Partnership Community (CTRP) Meeting on April 25, 2011 was followed by the Celebration Ceremony, which included an address by Sue Van on the Legacy of Wallace H. Coulter and a panel on "Coulter Partnership: A Model to Accelerate Commercialization of University Innovation."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