COLLEGE OF SCIENCE AND HEALTH WILLIAM PATERSON UNIVERSITY

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Fall 2011

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William Paterson University

Vol. 35

Science Hall Renovation





Did you know?

- There are now 645 Biology and Biotechnology majors at WPUNJ.
- Our faculty have approximately \$1.6 million in active grants this academic year and several grant proposals in review.
- The Biology faculty published 12 articles in refereed journals and gave 25 presentations at regional, national and international meetings over the past year.
- 32 Biology/Biotechnology undergraduates had paid internships last summer, funded by various grants in the department and university.



WILLIAM PATERSON UNIVERSITY

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The newly renovated 120,000 square foot Science Hall East will be ready to be moved into by the end of the fall semester. The new spaces will include eight Biology teaching labs as well as a vivarium, a greenhouse a microscopy suite, an additional research lab, and a walk-in cold room There will also be two new teaching labs for Chemistry, two for Physics, two for Environmental Science, and one for Anthropology. There will be eight new computer labs as well as several smaller teaching and research labs. In addition, the newly renovated space will house the new dean's office suite, an adjunct office suite, a radiation lab, machine shop, two water rooms, the Nickles conference room, and a Club room. The Science Enrichment Center (SEC) will be housed in a new large 1700 square foot complex where the students will be able to write all over the walls which will all be covered in whiteboards. The SEC will also have rooms for computers, lab study areas, offices as well as a lounge and library.

2011 FACULTY-STUDENT SOFTBALL GAME



Dr. Peek organized the fifth annual Biology Faculty/Student Softball game that was played May 13, 2011. Once again the faculty proved their athletic worth by squashing the student team 9 - 2! And, this year the faculty had matching T-shirts (a uniform!). The students were embarrassed.

Awards Ceremony and Graduation 2011

<u>Students receiving the B.S. Degree in</u> <u>Biology or Biotechnology in 2011:</u>

Onvedikachi Achilike. Alia Al-Oatarneh. Mvra Arcilla. Ahmed Ashour, Annabelle Beltran, Dana Boschert, Paola Chacon, Michelle Cilibrasi, Jagat Daliya, Nicholas DePue. Nichole Gersht, Karthik Gopal, Tara Halpern, Sarah Jatkr. Ashley Jones, Neda Kassai, Brittany Knoll, Matthew Kopec, Maribel Lopez, sette Mendoza, David Odum, Esther Okorie, Anuradha Rana. Maria Rubio. Yasmeen Saleh. Michael Schill, Ankita Shah, Jonnelly Sherwood, Brian Smith, Corey Stein, Aarti Tailor, John Urban, Anthony Vinci,

Cassandra Aguavo. Johanna Amores. Patrique Arthurs. Gurkanwal Bal, Asiel Benitez, Cheryl Bylinski, Victoria Cicak, Zach Cogavin, John Delva, Jesse Gasparro, Elissa Gocklin, Melissa Hackling, Lauren Hemmerling HerniodeJean-Baptiste Liana Kabrel, Steven Knezevic, Adedoyin Kolawole, Anthony Lombardo, Juan Manjarrez, Les-Abosede Odeyemi, Toluwalope Ojelade Jayson Punla, Bryan Rescigno, Kaitlin Ryan, Keith Savball. Donald Seymour, Mushhood Sheikh, Anairda Shuli, Matthew Snyder, Jimmy Sunga, Lacey Thompson, VanValen. James Mary Zaroura

<u>Students receiving the M.S. Degree in</u> <u>Biology or Biotechnology in 2011:</u>

Nancy Abdulla, nil Macwan, Souhad Nakouzi, Bethany Paras, Yogesh Patel, Lindell Evans, Swap-Payal Mehta, Kayode Oluyemi, Aarti Patel Shivam Vardhan



Dr. Gardner with some of the MS degree students at Commencement



Biology and Biotechnology graduating seniors at the Awards Ceremony



Beta Beta Beta inductees with Dr. Chesney

Awards Ceremony 2011

On May 12, 2011 an Awards Ceremony was held for graduating seniors and students receiving awards.

Outstanding Senior award recipients were Annabelle Beltran (Bio) and Asiel Benitez (Biotech).

The Capstone Award (for highest achievement on the capstone exam) went to Jesse Gasparro.

The Undergraduate Research Award recipient was John Urban .

The C. Kent Warner award recipients were Asiel Benitez (BioTech) and Jesse Gasparro (Biology).

The C. Kent Warner Scholarship Recipients were Paige Appleton, Ama Berko, Tomiko Rendon, Heidi Rogers, and Heather Szendi. The GS-LSAMP – MAPS Award for Outstanding Academic Achievement and for Community Service was awarded to Asiel Benitez

The inductees into the Beta Beta Beta Biological Society - CHI RHO Chapter were Cheryl M. Bylinski, Veronica Cadavid, Jennifer Fiorelli, Jesse W. Gasparro, Esther O. Okorie, Tomiko K. Rendon, Heidi C. Rogers, John Sabat, Jonnelly Sherwood, Matthew W. Snyder, Jennifer M. Taylor, Danielle Zeltner.

Graduation 2011



On May 18, 2011, William Paterson University's graduation ceremonies were held for the first time at the Izod Center in East Rutherford, NJ. Both undergraduate and graduate degrees were conferred at the ceremony, the first one to be presided over by our new president, Dr. Kathleen Waldron, shown below with some Biology Department graduates.



Faculty News

Dr. Danielle Desroches has been busy teaching. She also wrote 4 new lab manuals as well as instructor's manuals. This summer she taught a one day workshop -"Scientific Inquiry" as a component of MATH-SCIENCE Institute at WPUNJ and created the workbook called "Exploration of Biomedical Fields" for a CSI-like one week workshop. She also managed to monitor 26 students, working as research interns, as part of the GS-LSAMP program this summer.

Dr. Eileen Gardner (along with Dr. Danielle Desroches) was awarded a National Science Foundation grant to fund the ISSBB Scholarship program for another four years. This program provides scholarships for Biology/ Biotechnology undergraduate and graduate students interested in research or teaching careers. The \$590,521.00 grant will enable the department to provide at least 14 scholarships per year of up to \$10,000 until 2015.

Dr. Claire Leonard continues to serve as the pre-professional advisor. In her spare time, she sings in the Classic Chorale Society of Orange County and the Saint James Choir. This year, she sang the Messiah at several venues, including Carnegie Hall (see photo).



Dr. Kendall Martin is developing environmentally friendly methods for plant pathogen control in agricultural systems that previously relied on ozone-depleting fumigant. He is also working with the EPA on forest root growth and distribution. Professors Martin and Perigo just built a 2000 square foot vegetable garden in their front yard.

Dr. Jaishri Menon organized our 5th Annual Undergraduate Research Symposium on April 16, 2011. It was attended by 102 students and 33 professors from 17 institutions. 57 abstracts were presented. Dr. Menon was also selected for a J. William Fulbright Scholarship and will conduct research and teach at Addis Ababa University in Ethiopia during Fall 2011. This is a high honor for Dr. Menon and well-deserved! **Dr. Emmanuel Onaivi** was selected as Guest Editor for Frontiers in Molecular Neuroscience. Dr. Onaivi organized a symposium on marijuana-cannabinoids at IDARS conference in Istanbul, Turkey and presented posters on collaborative work involving students and Dr. Leonard. The autism collaborative research with Dr. Benno with students' participation was published in Current Neuropharmacology.



Dr. Michael Peek spent the summer studying the effects of sand burial on 5 different strains of American Beachgrass in WPU's new greenhouse. In his custom-made pots, designed to track root growth, Peek and his students measured growth and physiological performance of how each strain would respond to being buried with different amounts of sand. Vince Alalay and John Scancarella are pictured measuring photosynthesis.

Dr. Mike Sebetich traveled to Arizona in March, where he met up with **Dr. Jean** Werth (see photo below).



Dr. David Slaymaker was on sabbatical last year to focus on developing his new research program in molecular population genetics of American beach-grass.

Dr. Joe Spagna has been busy conducting research with his students. This summer his research students (Edgar Validvia and Robert Sutherland, shown below) set up a molecularbiology bench in the lab and started amplifying and sequencing ant genes, in order to develop a phylogenetic tree for trap-jaw ants. Edgar co-authored a paper on the rapid running abilities of spiders, based on his previous work.



Dr. Steve Vail studied the evolutionary ecology of ants with two students under a program funded by the Roche Foundation last summer. He taught the first summer offering of Ecology, Evolution, & Behavior, to accomodate our rapidly growing student body. He also taught an online course, served as department chair, supervised two independent reading/study students, and took his first aerobatic flight instruction.

Dr. Miryam Wahrman was awarded the First Place Award in Journalism in June by the NJ Society of Professional Journalists, for Weekly Health, Science, Technology and Environment Writing for her article for The Jewish Standard, "Aphasia".

Dr. Edith Wallace (emeritus, photo below) has been giving talks at the Skylands NJ Botanical Garden and writing factsheets for the NJ Agricultural Experiment Station at Rutgers. To honor Dr. Wallace, Master Gardener Association of the Passaic County is offering a \$500 scholarship to a Passaic County high school senior who plans to pursue a program in horticulture or related subject. Dr. Wallace also received the 2011 Bergen County Audubon Society Harold Feinberg Conservation Award. The award is presented to a person that has enlightened and educated others and has bettered the environment in their local community.



Alumni News

1980's

Maria J. Lavooy (BS '80) received her M.A. and Ph.D. in Biopsychology from Miami University, Ohio, and recently accepted a position as the Applied Psychology Program Chair at the Florida Institute of Technology, Melbourne FL.

Oleg Kostin (BA '81; MA '87) is the Production Manager at New Jersey American Water in Bound Brook NJ.

Roy Messaros, (BS '82, MA '93) is a coastal/hydraulic engineer with the U.S. Army Corps of Engineers. They are looking at the effects Hurricane Irene had on the Green Brook Flood Control Project in north-central NJ, This is one of the largest Civil Works flood risk reduction projects in the country, designed to help communities that suffer from chronic flooding. He is also an adjunct professor at Stevens Institute, where he teaches graduate courses in water resources and hydraulics. He is shown below inspecting a risk reduction project in Passaic, NJ.



Cary Ackerman Millares (BS '86) worked as a research associate in R&D at Johnson & johnson until 1996. For the past 2 years she has been teaching piano and keyboard at a studio and is presently looking into Biotechnology Masters Programs.

Dr. David Bertone, PT, DPT, OCS (BS '86) received a Physical Therapy degree in 1988 from New York University and became a Board certified Orthopedic Clinical Specialist in 2005. In 2010, he graduated from the Evidence in Motion Institute of Health Professions with a Doctorate in Physical Therapy. He has been a practicing physical therapist for 22 years and currently serves as the President of the NJ Society of Independent Physical Therapists.

1990's

Debra L. Nieuwenhuis,(BS '92, MA '94) has completed post-graduate work towards a Ph.D. at the University of Wisconsin-Madison in the Oceanography and Limnology Graduate Program. She is presently an aquatic biologist in Wisconsin, specializing in algal and invertebrate taxonomy, lake management, and water quality analysis.

Lola Szobota (MA '93) is the District Science Supervisor at Northern Valley Regional High School and is also the Executive Co-Chair of the 2011 New Jersey Science Convention.

Giovanni D'Alia (BS '97) decided to switch careers and is now a teacher for the West Milford High School Biology Department. Prior to that, he was Director of Manufacturing Development and Analytical Development for two small biotechnology companies.

Kevin Curtis (BS '98; MS '06) is teaching Advanced Placement Environmental Science and Chemistry Teacher at Pope John XXIII High School in Sparta, New Jersey.

2003

Mario Sampson (BS '03) obtained a Doctor of Pharmacy (Pharm D) degree from The University of California, San Francisco in May 2011 and has started a two year fellowship in clinical pharmacology at the University of North Carolina Chapel Hill .

Trish Vander Sande (Bush) (BS '03, MS '08) spoke on " A University Lab Technician Career" at our annual Career Day in the spring of this year (see picture below).



2004

Alex Perchuk (BS '04) received his MD from West Virginia University and is now a doctor in residence at Ohio State University Department of Neurology. He is seen below visiting Dr. Onaivi, who he conducted independent research with while he was at WPUNJ.



Derrick Rodriguez (BS '04) received an RN in Critical Care at Mountainside Hospital School of Nursing. He is also nationally boardcertified in Critical Care Nursing. He has moved to Nashville, TN and is working as an Asst. Nurse Manager of Neuro ICU at Skyline Medical Center. He and Ashley have a twoyear and an baby boy. He is finishing an MSN in Nursing Education in 2012.

Krishna Tobon (BS '04) is a PhD student in the Department of Pharmacology and Physiology at the UMDNJ NJ Medical School Graduate School of Biomedical Sciences. She is the recipient of a PhRMA Foundation pre-doctoral fellowship. She is also the mother of pre-schooler, Zara Miain. She expects to graduate in the spring of 2012.

2005

Lily (Charnsmorn) Hwang (BS '05) pursued graduate studies in Forestry/Forest Hydrology at Southern Illinois University Carbondale. She is presently an ecohydrologist at Little River Research and Design

2006

Pamela Bierwas ('06) graduated from the University of Pennsylvania Veterinary School. She is now an intern at GSVS Pet Hospital.

Tiffany Greco (BS BT '06) received her PhD from the University of Maryland in May and has accepted a post doctoral position at UCLA in the laboratory of Dr. David Hovda in the Department of Neurosurgery. Her project there will be focusing on brain metabolism following pediatric traumatic brain injury. **Paul Meozzi ('06)** completed the Appalachian College of Pharmacy Doctorate in Pharmacy (PharmD) program in 2009 and is now working as a pharmacist.

Dawn Stager (Mulligan) (BS '06, MS 08) is an Associate Research Scientist at Bristol-Myers Squibb. She is involved in purifying proteins for the Gene Expression and Protein Biochemistry Lab.

2007

Onnolee Jansen (BS '07) is teaching Biology in East Rutherford.

Anastasia Plasket (BS '07) is currently enrolled in WPUNJ'S MS Biology program. She recently served as Department Chair and Science Olympiad coach at Central Jersey College Prep Charter School in Somerset, NJ and was just hired to teach Biology A and Forensic Science at High Point Regional High School in Sussex, New Jersey.

2008



Stephany Caraballo (BS '08) is combining her passions for conservation and urban ecology in her first semester of a Masters in Urban Planning Program at Texas A&M University. She became interested in urban ecology, community involvement, and urban planning at a non-profit organization in Jersey City. She then went to work for the National Park Service (photo above) in incredibly scenic Glen Canyon National Recreation Area in Arizona and Utah (see picture below) before entering Texas A&M.



Ken Clune (BS '08) is an Associate Scientist at Firmenich York where he has increased the throughput of a calcium imaging system for screening GPCRs by streamlining and optimizing the methods and implementing automation for compound delivery and fluorescence microscopy.

Seth Eberhardt (BS '08) was accepted into Temple University School of Podiatric Medicine. He switched from dentistry and is in his third year of podiatry school. He will be trained as a foot and ankle surgeon. He is also president of the American Association of Podiatric Practice Management at Temple.

Ceyhan Elipenahli ('08) is a research technician at Weill Cornell Medical College of Cornell University.

Brenda Kane – (BS '08) is a Pequannock High school teacher.

Shweta Pandya (MS BT '08) was in a PhD program in Christchurch New Zealand. She had to move following the Christchurch earthquake and was accepted in a PhD program in Auckland.

Mark Sauchelli (BS '08) earned his J.D. degree from Brooklyn Law School this year.

2009



Chris Berghout (BS '09, above) is doing graduate studies in Molecular Biology and Biotechnology at Rijksuniversiteit Groningen in the Netherlands. He's working in the Department of Molecular Genetics on a project dealing with Streptococcus pneumonia. He's also also joined the student ice hockey association at the University of Groningen!

Czrina Cortez (BS '09) is now a Research Technician at Memorial Sloan-Kettering Cancer Center

Yessenia Escolero (BS '09) is a Histology Technician at Bio-Reference Laboratories.

Casey Eustace(BS '09) – teaches Biology at Weekawken High School

Carl S. Gothmann (BS BT '09) is doing quality assurance work at the World's Finest Chocolate Company in Chicago. The company created a 12,190 pound bar which has been judged by Guinness World Records to be the World's Largest Chocolate Bar. The bar is 21 feet long, 3 feet high and 4 feet wide.

Jennifer Johnson (BS '09) is in the PhD program at Brown University

Poliana Oliveira (BS '09) is a Biochemistry Laboratory Coordinator at Essex Community College and is applying to medical schools.

Jacqueline Pietri (BS '09) is currently in the MS Biology program at WPUNJ. She is employed by Psychogenics in the Spinal Muscular Atrophy Group as a Behavioral Research Associate I. She spoke on "A Career in Pharmaceutical Research" at our annual Career Day this year (see picture below).



Jim Sackerman (BS '09) is currently working at Kearny High School, helping to develop the KARDS Academy for at-risk students three years of concurrent science (geophysical science, then Biology and finally environmental science). He is also teaching the Accelerated Honors Physics class, and continues to ride for the North Arlington Volunteer Ambulance Squad.

Chad Socha (BS '09) is an IC (Ion Chromatography) chemist, performing a variety of analyses on water and soil samples at the Eberline Analytical Corporation Lionville Laboratory. The Eberline Analytical Corporation's Lionville Laboratory provides a wide range of analytical services in support of major environmental programs for federal, state, and private enterprise clients. He is applying to Westchester University's Graduate Program in Biology.

Alumni News, continued

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2010

Janelle Mirza (BS '10) has started attending the WPUNJ Biology Department graduate program.

Marie Pierre (BS '10) is working towards her Masters Degree in Health Education at New Jersey City University.

Yelena Smirnova (BS '10) is attending the UMDNJ- Stratford School of Osteopathic Medicine.

Peter Tlatelpa (BS '10) stayed at WPU an extra year to get an additional degree in Chemistry. He is now an "entry level analytical chemist" at Intergrated BioPharma, a dietary supplement company. He works with ICP-MS and MS-HPLC, analyzing materials for high concentration elements (Ca, K, Mg.. etc) and traces of other elements (Pb, As, Cd etc). He started a masters program at NJIT in Pharmaceutical Chemistry and if all goes well will pursue a Doctoral Degree as well!

John Urban (BS '10) is in the PhD program at Brown University. He was one of the few Brown MCB grad students chosen by the faculty for an NIH traineeship and is also the sole winner of the NSF Graduate Research Fellowship (providing 3 years of funding) in the Brown MCB Dept. He will be joining the lab of Susan Gerbi - helping to sequence and assemble the genome and transcriptome of a fungus gnat, and studying its mechanism of intrachromosomal DNA amplification and parallels to breast cancer.

2011

Asiel Benitez (BS BT '11) is attending Mount Sinai's Microbiology Ph.D. program. He spoke on applying to graduate school at our annual Career Day this year (see picture below).



Cheryl Bylinski (BS '11) is at the graduate school at Columbia University working towards a Doctorate of Physical Therapy.

Michelle Cilibrasi (BS '11) teaches at Indian Hills High School in Oakland, NJ. She is a Resource Center teacher in the areas of Chemistry and Physical Science.

Tara Halpern (BS '11) is in a graduate program at UMDNJ Stratford.

Swapnil Macwan (MS BT '11) works at Regeneron Pharma as a Research Assistant.

Souhad Nakouzi (MS BT '11) is a scientist at Johnson and Johnson at the Raw Material Center.

Bethany Paras-Careri (MS '11) has taught general science in the 7th grade for 5 years and has been teaching 10th grade college prep biology and 11th/12th grade forensics for the past 2 years.

Yogesh Patel (MS BT '11) has a job at Merck as an assay development scientist.

Ankita Shah (BS '11) has joined the Cadbury Company as a junior chemist

Mushhood Sheik (BS BT 2011) is attending the graduate program for Pharmaceutical Engineering at NJIT.

Brian Smith (BS '11) is working as a Research Assistant I at a Harvard Medical School center – the Children's Hospital Boston, Department of Medicine – Renal Division (Transplantation Research Center). He hopes to enroll in a Ph.D. program within a few years.

Jonnelly Sherwood (BS '11) is the newest biology teacher at Wayne Hills High School!

We're on Facebook! Bio William Paterson

You Haven't Been Mentioned In An Alumni Newsletter Yet?

Em ail Dr. Gardner at:

gardnere@wpunj.edu and let us know what you're doing!

Include your name, your year of graduation, and any personal and/or professional information you would like us to print. We'd love to hear from you!

Visit the Alumni link on the Biology website:

http://www.wpunj.edu/biology/