## COLLEGE OF **SCIENCE AND HEALTH** William Paterson University

# Newsletter May 2012

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William Paterson University

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### From the Dean's Desk Dr. Sandra DeYoung, Dean, College of Science and

This year has been a notable one for the College of Science and Health. The renovated Science Hall East reopened in January 2012 in time for the Spring semester. We held the official Grand Opening celebration of the entire Science Complex on March 1st with alumnus Dr. John DeLuca. Vice President for Research at Kessler Institute for Rehabilitation as our keynote speaker at the scientific symposium

In the Nursing Department, the Doctor of Nursing Practice program admitted its inau-

gural class in Fall 2011. The Computer Science Department moved from the Coach House into Science Hall East. In the Fall 2012 semester we will begin our BS in Environmental Sustainability program and the BA in Sport Management program.

I will be retiring from William Paterson University after 27 years, nine of them as Dean of the College of Science and Health. I will certainly miss the University, but will keep in touch. Joining me in retirement will be Professor Kathleen Connolly and Dr. Ruth Harrison from Nursing, Dr. Linda Kaufman, Computer Science, Dr. Virginia Overdorf, Kinesiology, and Dr. Mike Sebetich, Biology.

The search for a new dean is still ongoing and should conclude shortly. The new dean will be responsible for developing a new strategic plan for the College and will undoubtedly continue to lead our notable faculty and student body into even greater accomplishments.

Please read on to see updates from the academic departments, and please keep in touch with us in the future.

#### From the Department of **Public Health**

The 2011-2012 academic year was very productive for the Department of Public Health. We welcomed a new faculty member, Dr. Corey Basch, implemented a revised curriculum and minors, increased opportunities for student/faculty collaboration, and began work on an MPH program.

the Department in September, 2011 as an assistant professor coming to us at the completion of a fellowship at Columbia University. With her strong research and public health background, Dr.

Dr. Corey Basch joined Basch is teaching a number of courses in the newly implemented departmental core. Our undergraduate degree in Public Health Education was revised to expand options for students seeking a career in public health. The degree was changed to a BS in Public Health with two tracks, generalist and health education.

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### From the Department of Public Health (con't)

This change has been enormously successful and has resulted in a significant increase in the number of Public Health majors . Additionally, we implemented two minors this year, Health Studies and Public Health, both of which have been very popular.

Students and faculty collaborated on a number of projects this year. Public health major Rodney Hammond worked with Dr. Basch on an analysis of health related advertisements and editorials in two popular parents magazines. Rodney's poster depicting the results of this investigation was presented at the 57th Annual NJ Academy of Science Meeting at Seton Hall University in South Orange, NJ.

Public Health majors Vanesa Apaza and Nichole Kershaw worked with Dr. William Kernan on a grant-funded project aimed at creating a county-wide substance abuse coalition in Passaic County. Passaic County is the only county in the state without a functioning coalition specifically aimed at reducing the incidence of substance abuse. In preparation for a multi-stage needs assessment, Vanessa composed an extensive list of existing substance abuse prevention resources in Passaic County. Nichole worked on ways in which county coalitions communicate with their membership via the internet. This work will result in a list of best-practices for coalition communication plans to ensure sustainability and cultural competence. The work of these students is funding by the New Jersey Department of Mental Health and Addiction Services (DMHAS), through a five-year grant received by Dr. Kernan and Dr. Glen Sherman of the Division of Student Development.

Public Health and Applied Health majors worked with Drs. Hayden and Kernan to establish the WPU Community Garden. With financial support from the University, a 22 plot garden is now up and running for members of the campus community. Public Health major Mary Kathryn Dalton worked with Dr. Kernan on an extensive review of the literature related to the health outcomes of community-based gardening programs. Mary Kate identified common health behavior change theories used in these programs as well as the ways in which community garden managers communicate with their communities about issues related to local food consumption.

### From the Department of Computer Science

After many years of planning and preparation, the Department of Computer Science has finally been moved from the historical Coach House to the renovated Science Hall East at the end of the fall 2011 semester. We are now located on the fifth floor with the Anthropology Department. We occupy the space towards the Student Center while the Anthropology Department towards the athletic fields. We started the spring 2012 semester in this brand new environment. We have been very excited teaching in the three classroom labs which equipped with the latest desktop computers (Dell Optiplex 780 and 790). Other facilities include eight faculty offices, a learning center, a research center, a departmental suite, an open computer lab, and a computer server room. Also, our computing power has been increased – in addition to the two existing Sun servers (one for our cs.wpunj.edu domain and one for digital processing re-

"We implemented two minors this year, Health Studies and Public Health, both of which have been very popular."

#### From the Department of Computer Science (Cont'd)

search), the University provided us a Dell PowerEdge R410 server and one more Dell server, PowerEdge R710 will be coming soon. We used the R410 for multiprocessing research and we planned to use the R710 as our license server and also for research in virtual and cloud computing. If you happen to be in the Wayne vicinity, please stop by and pay us a visit. We will be glad to show you our new labs and facilities. You can find photos (shown below) of our students and faculty in the hallways of Science Hall East.



We are planning to convert one of the classroom labs into a computer networking and network security lab in the coming fall semester. This networking lab will be equipped with the latest hardware and software for computer network and security research. The lab is needed to carry out some of experiments specified in the courses proposed for our new Computer Information Technology major. In addition, the University has approved a new faculty line for us and we are in the final process of hiring a new faculty with expertise in computer network, cyber security, and the latest technology in internet, wireless, and mobile computing.



As always, we love to hear from our alumni. We have invited many of our alumni back to campus to give seminars, workshops, or offer job/internship opportunities. If you would like to do the same, please contact our Department Chair, Dr. Cyril S. Ku at <u>kuc@wpunj.edu</u> (973-720-2960).



#### From the Department of Kinesiology

Greetings from the Department of Kinesiology! Much has occurred during the 2011-12 academic year related to our faculty, students, and curriculum offerings. Professor Robb Rehberg, former president of the Athletic Trainers' Society of New Jersey from 2007-09, served as a leading advocate for the state's 2010 concussion law which covers interscholastic sport programs. Also related to our Athletic Training Education Program (ATEP), senior Andrew Levine worked as an athletic training intern with the NY Giants during fall, 2011 and he has since accepted a graduate assistantship at Long Island University beginning in fall, 2012. Tsr Jamaal Martin, a junior AT student, represented our ATEP at the Eastern Athletic Trainers' Association Athletic Training Student Quiz Bowl where he competed in a Jeopardy-style game against other AT students from universities in the northeast.

Exercise Science faculty and students celebrated the arrival of our new antigravity treadmill in the Human Performance Laboratory. Using technology developed by NASA, the AlterG anti-gravity treadmill uses differential air pressure allowing a person to train with less impact on joints. Under the direction of Professor Michael Figueroa, undergraduate and graduate Exercise Science students are examining how the treadmill can be used to enhance cardiovascular endurance and decrease the time needed to recover from injury. Several undergraduate exercise science students will be accompanying Professors Emmons, Figueroa, and LaSala to the Annual American College of Sports Medicine Conference (ACSM) in San Francisco at the end of May.

Nine Physical Education/Teacher Certification students were co-presenters with Professors Flores-Marti, Mullin, and Rady at the 2012 New Jersey Association for Health, Physical Education, and Dance (NJAHPERD) Annual Convention in Long Branch in March. Our students and faculty presented on topics related to urban physical education, goal setting, spotting the warning signs of bullying, and assessment strategies. Under the direction of Professors Mullin and Wicke, seven students enrolled in Tests and Measurement conducted fitness testing at the Healthy Kids Day at the Wyckoff YMCA in April.

Beginning in fall, 2012 the Department of Kinesiology will offer a new degree program; Bachelor of Art in Sport Management. Sport Management majors will complete courses taught by Kinesiology faculty including history and philosophy of sport, sport law and ethics, sport and event facility management, and global sport management in addition to marketing, management, and accounting offered by the Cotsakos College of Business. Students will complete an internship in an approved sport/recreation setting during their final semester.

Finally, Professor Virginia Overdorf has announced her retirement as of June 30 after a distinguished career of 44 years at William Paterson. Serving in multiple roles (tennis coach, department chair, faculty senate chair, and others), Professor Overdorf has made a tremendous impact on the Kinesiology Department and the university as a whole. We wish her the best as she explores new interests ...

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#### From the Department of Environmental Science

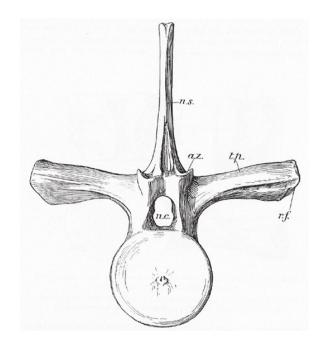
University paleontologist Dr. Martin Becker studies fossil shark teeth and fish, so it's no surprise that he is growing gills so-to-speak. Marty's recent expedition to one of his usual Arkansas fossil sites, was not the usual dig, it was to dive a murky river to excavate an enigma of underwater marine-fossils. His ability to read the rocks led him beyond the predictable dig sites and areas of development to this aqueous outcrop; his enthusiasm and capability was met with reward. With scuba gear and a sledge, Marty's vested interest in fossils has made him a pioneer of paleontology in this new venue of diving for dinos. Marty's finds from thirty-three feet down included several well preserved turtle bones and an assortment of shark teeth. But the crown jewel and considered among rarest of ancient reptilian fos-



sils is his second (not first) plesiosaur vertebrae! Plesiosaur's were long-bodied carnivorous marine predators which lived in the late cretaceous. If they were still living, scuba diving would be risky to



say the least. This undisclosed fossil locality has proven highly valuable scientifically and through Marty's commitment, these fossils are now "home" in his paleo-lab where he is delicately exhuming the nearly complete vertebrae out of the host rock. These exquisite specimens are getting their deserved attention as Marty is now working on the foundations of several future publications.



#### From the Department of Environmental Science (cont'd)

As an expression of our growing student enrollment and research demand, we've recently hired a full-time Laboratory Technician. Please welcome Mike DaSilva who officially started in September after working at the American Museum of Natural History as Scientific Assistant for the Department of Earth and Planetary Sciences, Petrology. Mike brings much teaching and analytical-instrumentation experience cultured during his years in graduate school and at AMNH. His contributions to our department are diverse; whether it be calibrating and running instruments, bridging student-faculty research, preparing various laboratory exercises, or advising students directly in research. Mike's enthusiasm and commitment to the high standards expected of Environmental Science have been recognized as we continue to build our program.

#### From the Department of Biology

Last year at this time the Biology faculty were focusing tremendous energy on preparations for our annual Biology Faculty vs. Students softball game. Not only did the faculty debut their matching T-shirts (= uniforms), they squashed the student team 9 - 2! The students were embarrassed. Odds may shift this year – the student team has two starters from the WP Women's softball team. Uh oh. One thing is certain, we always have a good time. The softball game is one of several gatherings of Biology faculty and students during the academic year. Other meetings focused on such things as degree programs, careers, and involvement in research.

The most significant event for the department was the move from Science Hall West and 415 Hamburg Turnpike to the newly renovated facilities in Science Hall East. Months of planning led to several weeks of packing, moving, and unpacking during early January. Those of us living at '415' certainly appreciate the feeling of being back home in what was once the Science Hall.

Our Biology student population continues to grow and is approximately 650 majors this year. The growth is due in part to our Post-bac, Pre-med program which has attracted students from all over the country. This group of students now composes 10% of our majors and is mentored by Dr. Carey Waldburger. The mentoring by Dr. Waldburger extended to a Spring Break, SGA sponsored, trip to Virginia to build houses for Habitat for Humanity. Two of our Post-bac students and several other Biology majors participated.

Dr. Danielle Desroches mentors students as she directs the GS-LAMP, MAPS programs which provide support for our students to participate in out-of-class and offcampus work ('internships') in Biology. Last summer about 25 students had paid internships, and were featured in Dr. Desroches' 3<sup>rd</sup> annual edition of her publication that celebrates student research activities. In Summer 2012, over 30 students will be supported.

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#### From the Biology Department (Cont'd)



Included in the \$1.6 million dollars of grant dollars managed by members of the Biology Department, Dr. Eileen Gardner selected 23 Biology students to be awarded ISSBB (NSF-funded) scholarships and continues to mentor these students as they progress in the major. This year and for the first time graduate students were included as scholarship recipients. You can see photos of these students posted outside the door to Dr. Gardner's research lab in Science West.

Continuing with the theme of faculty-student mentoring, Dr. Jaishri Menon planned/organized the 6<sup>th</sup> Annual Undergraduate Research Symposium (AURS) that was held at WP on April 14. Because of her efforts and successes of the previous 5 meetings, the directors of the Eastern Colleges Science Conference asked to meet in conjunction with our spring meeting. The result was almost 500 attendees! Our AURS group numbered 115 students and 30 professors from 4 states and over 14 institutions. Various categories of research were judged

by WP faculty and awards were presented at the end of the day. Our own Nelson Araujo and Nicholas Margo (both students featured on cover of latest edition of WP Magazine) won first place for Ecology/Evolution; Joanna Wreslio won second place. In Behavior, Physiology & Biochemistry, William Manzo won first place. Dean Sandra DeYoung was presented a special award for her strong support of the AURS events.

This year brought personnel milestones. Dr. Michael Sebetich announced his retirement and we will miss him greatly. Of his many accomplishments, his pivotal effort to acquire the Oldham Pond property and 'house' for WP was especially noteworthy. Another milestone was our successful search for a tenure-track molecular biolo-



gist. Dr. Emily Monroe will join our faculty ranks in September.

#### From the Department of Communication Disorders & Sciences

The Department of Communication Disorders and Sciences has had an exciting year. It has grown to 63 majors, 24 minors, and 65 graduate students. This represents a significant increase from several years ago, when the undergraduate major and minor did not exist. In 2012, eleven students will graduate with their BA in Communication Disorders. These students are part of William Paterson's BA/MS Accelerated Program and will be entering the graduate program with a mean GPA of 3.74. Another noteworthy accomplishment is the first student slated to graduate from the BA/MS Accelerated Program. This student, Laura Bermingham, began her undergraduate studies at William Paterson in 2007. She will receive her master's degree this year and has been selected to give a commencement speech at the graduation ceremonies. An additional 24 students will graduate with their MS degree in Communication Disorders this year. The interest in our graduate program continues to grow. The university received 421 graduate applications from individuals interested in coming to our program.



Faculty and alumni presented their research at the premier annual event for speech, language, and hearing scientists. The American Speech-Language-Hearing Association Convention brought together more than 12,000 professionals, and was held in San Diego, California in November 2011. Drs. Magaldi and Kollia were co-authors on a study entitled "Iconicity & Feature Preferences During Visual-Spatial Tasks in Autism." Dr. Jim Tsiamtsiouris presented his research on the development of language factors and how it impacts speech fluency. Two graduates of our program, Vanessa and Rachel Goldman, presented their thesis research. Their studies involved the development of auditory and visual integration in speech perception and theory of mind development and effect of speaker certainty on lexical acquisition. Drs. Gelfer, Kollia, and Hsu served as their thesis advisors. Additional presentations were made at the 6th Annual Autism Conference of the Association for Behavior Analysis in Philadelphia, PA. Drs. Magaldi and Kollia presented their most recent findings on pictorial iconicity and visual-spatial matching tasks in children with autism.

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#### From the Department of Communication Disorders & Sciences (cont'd)

The Department's Speech and Hearing Clinic continues to help families. Faculty and students performed numerous preschool speech, language and hearing screenings for Head Start Programs in Montclair, East Orange, and at other sites around NJ. A total of 364 pre-school children were screened at these sites. This year, the total number of clients seen for speech/language therapy and diagnostic evaluations on campus increased by 83 clients to a total of 349 clients (236 for therapy, 113 for diagnostics on campus). In addition, 20 diagnostic evaluations were performed at varied school districts throughout the northern NJ area for children awaiting Child Study Team Assessment. A total of 469 community hearing screenings were performed as well.

In April 2012, the WPU Chapter of the National Student Speech-Language-Hearing Assocation (NSSLHA) hosted the 2nd Annual Autism Awareness Day to raise awareness about autism throughout the campus and the community. Students had the opportunity to learn about autism, view beautiful artwork created by children with autism, and enjoy some sweets.

Dr. Nicole Magaldi led an "Autism 101" talk, enlightening the audience on the signs, symptoms, and treatment of autism. Guest speaker, Ms. Janet Henry, an art teacher of Colonial Road School in Franklin Lakes, NJ, spoke about the use of art with autism. A bake sale helped NSSLHA raise and donate money to Autism Speaks, the nation's largest autism science and advocacy organization dedicated to funding research for the causes, prevention, and cure for autism. NSSLHA is looking forward to hosting another successful Autism Awareness Day next April!

Our students continue to receive awards for excellence. Dr. Vishwa Bhat presented Ms. Corianne Faber, a student in our graduate program, with the Marni Riesberg Award for Clinical Excellence at the annual convention of the New Jersey Speech-Language-Hearing Association. This event took place in Long Branch, NJ.

#### From the Center for Research

This year the Center for Research awarded 12 stipends for Summer Research to faculty members of the College of Science and Health for Summer 2012. The awards were given to Professors Becker, Champanerkar, Gilley, Jitianu, Nacin, Onaivi, Shakibai, Slaymaker, Snyder, Spagna, Waldburger and Weiss. The funding will also cover expenses for 11 student assistants who will work on projects with several of the above faculty members. At the University's Research and Scholarship Day on April 5<sup>th</sup> 2012, several faculty whose research had been sponsored, in part, by the Center for Research presented their work with 4 posters and 5 oral presentations. For additional information, please contact the Director, Dr. Kollia, at kolliab@wpunj.edu.

#### From the Department of Physics

As part of the Global Astronomy Month celebrations, the Physics Department organized a public-friendly astronomy event on April 28, 2012 which attracted around 80 to 90 people representing the general public including students from the local high schools and middle schools. Based on anecdotal reports the turnout would have been greater if the event had clear skies for an evening of stargazing as originally planned.

Professor Jason Kendall, a NASA/JPL Solar System Ambassador, gave an engaging presentation titled, *Curiosity: Is there life on Mars?*. His talk centered on the next big Mars mission by NASA due to arrive on August 5<sup>th</sup> of this year, the Mars Science Laboratory christened "Curiosity". Audiences were delighted to hear about the nature of the study of life in our Solar System, and where we might go to find more. Kendall's 45 minute talk generated many thoughtful questions, including one on climate change, which is a focus of the WPU's sustainability initiatives. It was especially gratifying to see the younger attendees, including a seven-year old, ask probing questions about the universe around them. Public presentation of current events in astronomy such as this event captures the students' and public interest like no other topic, and in this respect it is the "performance art" of the sciences. This is the main reason why over 400 students take the astronomy course annually and has inspired students to recently start an Astronomy Club on campus.

Professor Jason Kendall, a NASA/JPL Solar System Ambassador, gave an engaging presentation titled, *Curiosity: Is there life on Mars?*.

#### COLLEGE OF SCIENCE AND HEALTH WILLIAM PATERSON UNIVERSITY

## CONTACT US

Sandra DeYoung, Ed.D. Dean, College of Science and Health Office: Science East Room 3019 Mailing address: Science Hall 3019 Phone: 973-720-2432

Email: <u>deyoungs@wpunj.edu</u>

Jean Fuller-Stanley, Ph.D. Associate Dean, College of Science and Health Office: Science East Room 3019 Mailing address: Science Hall 3019 Phone: 973-720-3415

Email: fullerstanleyj@wpunj.edu