SENIOR RFT IN SPRING 2013


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LETTER FROM THE EDITOR

Look at these beautiful, young people up there. Recognize the shine in their eyes? Read their hopes and expectations! Feel their joy and pride! Think of their future! May one of them find the cure for a disease? May one of them be your future dentist? May one of them contribute to solving global challenges? May one of them save your dog, your cat, or maybe you yourself? .......

To see and experience this is better than a paycheck for me!
Read about our seniors, our experiences, our plans!
Cheers,
Dr. Horst Onken, The Editor
NEWSLETTER NEWS

The Limulus has appeared almost every month within a semester beginning in the fall of 2007. In the future, the newsletter will only be published once each semester. The current issue is the first newsletter of this format. Moreover, the editorial board is extended. Dr. Corbo and Dr. Onken will act as co-editors.

Contributed by Dr. Onken

BIOLOGY STAFF AND FACULTY NEWS

Dr. PALESTIS PROMOTED
Dr. Brian Palestis was promoted to full professor. He was also re-elected to the chair position. Dr. Palestis will serve his 3rd term as the department chair. CONGRATULATIONS!

Contributed by Dr. Onken with a photograph by Ms. Rollizo

Dr. CORBO FINISHES FIRST YEAR AS FACULTY MEMBER
Dr. Chris Corbo is the newest hire of the department. He finishes his first year as a faculty member. I think it is easy to evaluate him: We love our newest hire, and it looks as if he likes us, too!

Contributed by Dr. Onken with a photograph by Ms. Rollizo

END OF YEAR CELEBRATION
Faculty and staff of the sciences celebrated the academic year 2012/13 with a lunch at the restaurant Adobe Blues. As usual, it was organized by the essential staff member of the Biology department, Ms. Stephanie Rollizo (standing on the left).

Contributed by Dr. Onken with a photograph by Ms. Rollizo

UPCOMING SABBATICALS
Two faculty members of the Department of Biological Sciences were granted a sabbatical for the academic year 2013/2014. Dr. Stearns will be on sabbatical during the fall semester 2013, and Dr. Onken will not be at Wagner College during the spring semester 2014.

Dr. Stearns will be working to complete a draft of a major monograph on careful thinking, defined as drawing logical conclusions from all credible information dealing with the topic being considered. The monograph is designed to prepare the responsible citizen for appropriate decision making when faced with credible information that requires careful thinking. This project addresses the very real concerns of living in a democracy and having to make decisions as a responsible citizen. For greater accessibility and understanding, the monograph is purposely structured simply and as jargon free as possible.

Dr. Onken will spend his sabbatical at Washington State University (Pullman, WA), at the Scripps Institute of Oceanography (San Diego, CA), and at the University of Manitoba (Winnipeg, Canada). In Washington State, Dr. Onken will forward his research with mosquitoes and extend his work with insects to a larger animal, *Manduca sexta*. As larva, these animals are known as tobacco hornworms and are one of the major model organisms for insects. As adults, the animals are large moths. In San Diego, Dr. Onken will participate in a major conference of Experimental Biology and start a new collaboration with a faculty member from the Scripps Institute. In Winnipeg, Dr. Onken will collaborate on a project with crustacean gills.

Contributed by Dr. Stearns and Dr. Onken with photographs by Anna Mulé
CURRICULUM NEWS

SUMMER COURSES
In the following, find a list of the courses that are offered during the summer period. Some of these courses have already started, but for some it is not yet too late to register.

BI120: Human Biology (Fulop)
BI209: Human Anatomy & Physiology 1 (Fulop)
BI209L: Lab Experience for BI209 (Fulop)
BI210: Human Anatomy & Physiology 2 (Raths)
BI210L: Lab Experience for BI210 (Raths)
BI/MI213: Cells, Genes and Evolution (DiClerico)
BI/MI213L: Lab Experience for BI213 (DiClerico)
B1335: Natural History of the Mid-Atlantic States (Palestis)
B1335L: Lab Experience for B1335 (Palestis)
BI/MI517/MI615: Electron Microscopy (Corbo)
BI/MI517L: Lab Experience for BI/MI517/MI615 (Corbo)
MI200: Microbiology (Bobbitt)
MI200L: Lab Experience for MI200 (Bobbitt)

In addition, the research courses BI/MI400E, MI797, 798, 799 will be offered.

COOPERATION WITH THE STATEN ISLAND ZOO
The Staten Island Zoo has begun collaboration with Wagner College, thanks to the efforts of Dr. Chris Corbo.

Dr. Corbo and **Dr. Marc Valitutto**, General Curator and Veterinarian of the Staten Island Zoo, have developed a new research-based internship with students from Wagner joining zoo staff. The first student, Eden Stark, has already begun her internship. Eden is a graduating senior with a major in Microbiology who continues in the Microbiology Graduate Program at Wagner.

We will report more about this cooperation in future issues.  
**Contributed by Stephanie Rollizo**

BIOLOGY STUDENT NEWS

SENIOR RESEARCH AND THESES

Senior Thesis Defenses took place in the early part of May.

**Faiz Abed**: Moorthy (chair), Fulop, Palestis
“Teratogenic Effects of Stannous Chloride at Various Concentrations on Zebrafish (Danio rerio) Embryos”

**Samar Alwani**: Palestis (chair), Corbo, Stearns
“Behavioral Effects of Listeria monocytogenes – Induced Blindness in Zebrafish (Danio rerio)

**Gregory Balaes**: Cook (chair), Fulop, Stearns
“The Effects of Diethyl Phthalate on Drosophila melanogaster Viability and Development”

**Joshua Betz**: Stearns (chair), Onken, Palestis
“Soil Health Comparison of Invasive Dominant Entiation Units to Native Species Dominant Entiation Units in the Staten Island Greenbelt: Willowbrook, Deere and High Rock Parks”

**Anthony Cerciello**: Onken (chair), Palestis, Stearns
“WNT5A Regulates Dendritic Growth and Morphology of Sympathetic Neurons”

**Janna Denisenko**: Moorthy (chair), Fulop, Stearns
Identifying the Onset of Teratogenicity of Lithium Chloride in the Development of Zebrafish (Danio rerio) Eye

**Joanna Emilio**: Cook (chair), Onken, Palestis
“Analyzing the Effect of the Putative Endocrine Disrupting Chemical Dipentyl Phthalate on the Development and Viability of Drosophila melanogaster.”

**Mark Fealey**: Palestis (chair), Onken, Palestis
“Prevalence of Intraspecific Kleptoparasitism among Common Terns (Sterna hirundo) in Barnegat Bay, NJ”

**Frank Gallinaro**: Corbo (chair), Fulop, Palestis
“The Automation and Streamlining of the Photo Mongaging Process using Adobe Photoshop”

**Brittany Gonzalo**: Palestis (chair), Fulop, Onken
“‘Species Recognition in Zebrafish (Danio rerio)”

**Jessica O’Neil**: Stearns (chair), Onken, Palestis
“Park Elevation Related to Health of Soil Compared in the Staten Island Greenbelt Parks: Willowbrook, Deere and High Rock Parks”

**Jessica Oppenheimer**: Bobbitt (chair), Alba, Palestis
“Pet Food Preservatives Unsuccessfully Suppress Interactions with Bacillus subtilis, Escherichia coli, Salmonella typhimurium, Shigella sonnei and Staphylococcus aureus”

**Nimrod Philippe**: Bobbitt (chair), Corbo, L. Raths
“Environmental Effects on the Virulence Factor of Methicillin Resistant Staphylococcus aureus”

**Adam Rizzuti**: Palestis (chair), Cook, Stearns
“Species Recognition in Zebrafish (Danio rerio) Based on Olfactory Cues”

**Sheldon Rozman**: Palestis (chair), Corbo, Stearns
“The Effects of Elevated Carbon Dioxide Concentrations on the Activity Level of Adult Zebrafish (Danio rerio)”

**Dana Samuel**: Cook (chair), Fulop, L. Raths
“Effects of Benzyl Butyl Phthalate on Drosophila melanogaster Viability and Development”

**Holly Santapaga**: Corbo (chair), Cook, Palestis
“Ultrastructural Analysis of Cellular Pathology Induced by Hyperphosphorylated Tau”

**Eden Stark**: Bobbitt (chair), Corbo, L. Raths
“Presence of Methicillin Resistant Staphylococcus aureus (MRSA) in Wagner College Athletic Facilities”

Some years ago, the faculty of the Department of Biological Sciences changed the curriculum, requiring all seniors to do a research project and to write a thesis. The faculty strongly believes that this is a tool that extremely forwads our students, that gives them great experiences, and that singles them out in an extremely positive way. Research requires finances. The Department of Biological Sciences has the support of **THE MEGERLE FAMILY**, who does not only
support the Science Building, but also offers selected students a summer research internship at Johns Hopkins University. However, also alumni and relatives of the department support our approach by giving to the “Undergraduate Senior Thesis Research Fund” that is specifically designed to support the senior research in the department. This is the time to thank

Con Edison (Michael)
Deborah Aanonsen ’85
James D’Amico ’89
Irena DeMario ’07
Letizia Hobbs ’07
Salvatore Indelicato ‘84
Ravi Moorhy
Frank Mroz
James Pietrofesa
Carol Russell ’96
Elaine Sheehy ’67

Without you, senior research in our department would be impossible or at least much more difficult and most certainly of lower quality. All seniors and the faculty thank you very much for your support.

If you are a friend or alum of our department, if you had good experiences with us, if you like what we do, if you feel this is for a good purpose, and if you are in the financial position, be aware

EVERY LITTLE HELPS
to advance or seniors. For further information on how to support senior research at our department, please, do not hesitate to contact stephanie.rollizo@wagner.edu.

SENIORS ADMITTED TO GRADUATE SCHOOLS
The Biology Department would like to proudly congratulate the following students in their acceptance to the professional school of their dreams. We wish you best of luck and a fortuitous future at the school you will be attending and in your future careers!

Seniors, do not forget to let us know if you are admitted to graduate schools. We would very much like to highlight your achievements in future issues of the LIMULUS.

Samar Alwani: will likely attend Pennsylvania College of Optometry at Salus University, also accepted at one other school.

Greg Balaes: Dental school: will attend UMDNJ, also accepted into Virginia Commonwealth and NYU.

Anthony Cerciello: Dental school: will attend SUNY Stony Brook, also accepted at 3 other schools.

Joanna Emilio: will attend New York Institute of Technology College of Osteopathic Medicine, also accepted into 3 other D.O. schools.

Mark Fealey: will attend Cornell Veterinary School, also accepted into three other vet programs.

Sheldon Rozman: will attend University of Pennsylvania School of Dentistry. Rozman was also accepted into NYU Dentistry.

Contributed by Philip Fomina
AWARDS

Awards for Academic Recognition (2013)

UNDERCLASS:

(1) **Michael Cataldo** - Biological Sciences Award - Presented to the underclass (sophomore) student showing the highest academic promise in a major within the Department of Biological Sciences.

(2) **Pakinam Mekki and Amanda Spira** - Robert D. Blomquist Memorial Award - The income from a fund given by friends of the late Robert D. Blomquist, a 1967 Wagner graduate, is presented annually to a student completing the junior year who, in the judgment of the biology faculty, is an outstanding biology student and of good moral character.

SENIORS:

(3) **Mark Fealey** (Cornell Veterinary School) and Joanna Emilio (New York Institute of Technology College of Osteopathic Medicine) - Norman L. Freilich Memorial Award - Established by his wife Lillian and their daughters in memory of Dr. Norman L. Freilich, a graduate of the Class of 1935, this award is presented to a graduating student who has been accepted into medical or dental school.

(4) **Joanna Emilio** - Kevin Sheehy Memorial Award - Presented to a graduating senior in biology who has achieved the highest cumulative grade point average in the major. This award is given in memory of Dr. Sheehy, Class of 1967, who was a Tottenville High School biology teacher and a Wagner College trustee.

(5) **Gina Auricchio** - Microbiology Award (at the undergraduate level) - Presented to a graduate in the discipline of microbiology whose scholastic achievement in the field of microbiology is outstanding. The award is given by faculty and staff in memory of Dr. Natale Colosi, former chair of the department.

(6) **Julia Mullins** - Roy. H. Mosher Award in Microbiology – Beginning May 2013, The Roy H. Mosher Memorial Award in Microbiology will be presented annually to a student in the BS/MS five year program in Microbiology, who, in the judgment of the faculty has excelled in independent research in the field of microbiology and who is also conscientious and cooperative.

GRADUATE:

(7) **Alex Molesan** - Microbiology Award (at the graduate level) - Presented to a graduating master’s degree student in microbiology whose scholastic achievement in the field is outstanding. The award is presented in the memory of Dr. Natale Colosi, former chair of the department.

(8) **William Rivera** - Highest Academic Achievement (Microbiology Program).

(9) **Julianna Maniscalco and Ashley Polizzotto** - Outstanding Academic Achievement (Microbiology Program).

Departmental Honors for outstanding work in biological sciences and/or microbiology were awarded to: **Samar Alwani, Gina Auricchio, Daniel Cimilluca, Janna Denisenko, Joanna Emilio, Corey Gaylets, Felicia Rubertone, Eden Stark and Elaina Tsimbikos.**

Following are some photographs from the poster session of the senior RFT and the announcement of Departmental Honors.

Contributed by Stephanie Rollizo
NEWS FROM CLUBS AND SOCIETIES

TRI-BETA BIOLOGY HONORS SOCIETY

On April 11th, the Wagner College Chapter of the Beta Beta Beta Honor Society held a ceremony to induct new members and officers to the prestigious biological honor society as well as to acknowledge its graduating members of 2013. The brief ceremony was held in the Gatehouse Lounge of Harborview and conducted by President, Joanna Emilio, Vice-President, Sheldon Rozman, and Secretary, Samar Alwani.

The new members inducted to the Beta Beta honor society were Robert Brandon, Michael Cataldo, Enri Citozi, Philip Fomina, Kristen Lee, Jenna Lombardo, Rebecca Siegel, Mahdey Tallat, Lynn Tay, Vincent Vitulli, Alexandria Zummo, and Francis Zuniga.

Each new member of the society recited the pledge of the society, vowing to uphold its principles and responsibilities. Additionally, each inductee received a folder containing a certificate authenticating their enrollment, a May 2010 BIOS Quarterly Journal of Beta Beta Beta (Volume 81, Number 2), as well as stickers and a stainless steel keychain featuring the Tri-Beta Honor Society insignia, a coiled serpent (an ancient symbol of wisdom). Furthermore, the 2012-2013 officers relinquished their roles to newly appointed officers for the 2013-2014 semesters; as officers were elected by vote on April 4th. The newly elected 2013-2014 officers of the Wagner College Tri-Beta Honor Society are President Philip Fomina, Vice-President Mahdey Tallat, Secretary Lynn Tay, Treasurer Enri Citozi, and Historian Rebecca Siegel.

The society also acknowledged their graduating members: Samar Alwani, Gina Auricchio, Gregory Balaes, Judith Betz, Janna Denisenko, Joanna Emilio, Mark Fealey, Nimrod Philippe, Sheldon Rozman and Felicia Rubertone.

Currently, Tri-Beta has many ambitious projects and events that have been proposed and/or planned for the coming semester. The first of which is the development and maintenance of a bulletin board dedicated to the society on the Biology Floor of the Megerle Science Building (4th Floor), most likely adjacent to Room 409. The board is to be shared alongside the Biology club and will feature the names of officers and members, provide biological journals/articles and information regarding biology-associated events or activities on campus and around the community, and present a “Biology Question of the Week”. Every following week, the answer of the question will be provided, along with an in-depth explanation and the appropriate professor to refer to for further inquiry. It may also feature a quick survey to pinpoint one’s particular interest in the vast field of biology and potential opportunities and/or events to cultivate further knowledge and experience in said specialty. The board will display the insignia of Tri-Beta and will be designed in blood red and leaf green, the colors of the society (blood red for zoology, leaf green for botany). In addition, there are many community service events and collaborative events alongside the Biology and Bio-psychology clubs to be announced in the near future.

As the Wagner College Chapter of the Tri-Beta Honor Society ushers in its new inductees and bids adieu to its old members, it continues to uphold its virtues of promoting scholarship in the biological sciences and the dissemination of biological knowledge as well as the encouragement of research; characterizing the finest and most promising students in the field of biological science at Wagner college.

Contributed by Mahdey Tallat with photographs submitted by Janna Denisenko and Stephanie Rollizo.

PRE-HEALTH SOCIETY

This semester, the Pre-Health Society has been quite active. In particular, the organization hosted the Second Annual Health Career Reception in the Faculty Dining Hall on March 21, 2013. This event had welcomed over thirty healthcare professionals and administrators, including: physicians, dentists, allied health professionals, and SIUH board members. In addition, recent Wagner alums attending health
schools had visited. The purpose of this event was to allow pre-health students to network with these professionals and ask essential questions about the future of healthcare. In the HawkTalk Blog, Lynn Tay reflects, “It was an enjoyable night. I had the privilege to meet a Wagner alum who regent graduated from the University of Pennsylvania’s dental school. She told us that Wagner had prepared her well for dental school at UPenn. Another piece of advice she gave was that we should enjoy our time as undergraduates and take classes that will help us become well-rounded individuals. She was a great help and answered all our questions thoroughly. Her words of encouragement were heartening, and we left the reception with a better understanding of what it takes to get into dental school, as well as how to make the most of our education here at Wagner.”

In addition to the reception, the organization has been involved in two community service events. The Health Fair was held on April 18, and numerous clubs and organizations gathered forces to raise awareness about health. It was directed and coordinated by Pre-Health Society members Phil Fomina, Enri Citozi, Mahdey Tallat, Radislav Meylikh and Greg Balaes. The Health Fair was a remarkable event, as it featured a rockclimbing wall, yoga and zumba lessons, stress balls, smoothies, food and free giveaways.

**EXPERIENCES**

**THE TREE OF LIFE IS DEAD; LONG LIVE THE TREE OF LIFE**

The Department of Biological Sciences and Beta Beta Beta Biological Honor Society presented an Award of Appreciation and Thanks to Dr. Robert DeSalle for his guest lecture on April 4, 2013 entitled, “The tree of life is dead; long live the tree of life.”

Close to 100 people attended the event, which was the result of a friendship formed between Dr. Ammini Moorthy and Dr. DeSalle last summer.

Rob DeSalle is a Curator of Entomology at the American Museum of Natural History. He is affiliated with the AMNH Division of Invertebrate Zoology and works at the Sackler Institute for Comparative Genomics, where he leads a group of researchers working on molecular systematics, molecular evolution, population and conservation genetics, and evolutionary genomics of a wide array of life forms ranging from viruses, bacteria, corals, and plants, to all kinds of insects, reptiles, and mammals. Rob is also Adjunct Professor at Columbia University (Department of Ecology, Evolution and Environmental Biology), Distinguished Professor in Residence at New York University (Department of Biology), Adjunct Professor at City University of New York (Subprogram in Ecology, Evolutionary Biology, and Behavior), Resource Faculty at the New York Consortium in Evolutionary Primatology, and Professor at the AMNH Richard Gilder Graduate School.

Dr. DeSalle is the recipient of many awards, has authored several textbooks and hundreds of scholarly articles in peer-reviewed scientific journals.

Contributed by Stephanie Rollizo

**TRI BETA RESEARCH GRANT**

Each year, the Biological Honors Society, Tri Beta, awards grants to undergraduate students. The Beta Beta Beta Foundation Research Grant is awarded annually to support undergraduate research projects. Students are encouraged to apply and last year, I had the honor of receiving a grant for my project titled, *Identifying the onset of teratogenicity in the development of the Zebrafish (Danio rerio) eye*. With the encouragement and support of my advisor, Dr. Moorthy, who told me about the grant opportunity, I sent in my proposal in September 2012. The national honors society chooses its recipients according to their proposal. As one of the requirements for the grant, I had to present my work at the Tri Beta district or national convention. After I received the award, I went right into the project to prepare my poster for the conference. The convention is held at a different Tri Beta chapter and this year, it was in Lincoln University, Pennsylvania.

The convention was attended by all students who received the research grant from Tri Beta, along with posters by the members of Tri Beta from district chapters. There were even Tri Beta members who came for support and to represent their chapter, including Notre Dame of Maryland University, Elizabethtown University, and Mount St. Mary’s University. The day began with oral presentations by students who have done research in various fields of sciences, from organismal to molecular biology. Presentations were followed by the poster session, which I participated in. It was a great opportunity to discuss my research, answer questions and receive feedback, and network with science professors and students from other colleges.

Bernard W. Sweeney gave the keynote address on water quality monitoring, pollution assessment, and effects of global warming. The conference ended with the awards ceremony. I was pleasantly surprised to learn that my hard work paid off and I won the John C. Johnson Award for Excellence in Student Research. The award recognizes one of the best poster
presentations at the conference. It was a great honor to be acknowledged and to add to my accomplishments as an undergraduate. All science undergraduates that are Tri Beta members are encouraged to apply for the grant. The application can be found in the BIOS journal and on the Tri Beta website. Applications are accepted beginning in August of each year.

Contributed by Janna Denisenko

HEALTH FAIR

Today in medicine, it has become increasingly important for the continuing effort to interconnect different health care professions to ensure that scientific breakthroughs in medicine are preserved and utilized to perfection in practice. However, the interconnection of differing health care professionals is also a necessity to expand patient care. This means making the relationships between physicians, physician assistants, nurses, and scientists, stronger and more interdependent to establish a strong medical network to cure people and serve to the greatest extend, by the power of science. Wagner Faculty and Students attempted to do just that at Wagner’s Second Annual Health Fair, held on April 18, 2013 on the Sutter Oval.

Led by student director and pre-med student Philip Fomina, Dr. Nancy Cherofsky and Dean Patricia Tooker of the nursing department, and Dr. Nora Lowy and Linda Morris of the Physician Assistant program, the health fair was an accumulation of informational stations of current health related issues provided by the incorporative collaboration of pre-med and pre-dental students, nursing students, and physician assistant students. Of recognition are committee student coordinators, Enri Citozi (pre-med), Mahdey Tallat (pre-med), Radislav Meylikh (pre-dental), Gregory Balaes (pre-dental), Elizabeth Harrington (nursing), Stephanie Hopkins (nursing), Marcel Kaganovskaya (nursing), Noelle DeNome (nursing), Ashley Jones (nursing), Ashley Caceres (nursing), and Christina Guerriero (nursing). Physicians from Staten Island University Hospital were also in attendance such as Dr. Raden, Neuroradiologist, and Dr. Benson, ER physician.

A focus of the fair was to promote a healthy lifestyle. The nurses took the calling by drawing attention to obesity and healthy dieting. To promote a lifestyle full of exercise, a rock-climbing wall was on site, footballs and Frisbees were thrown between health fair goers, and even yoga. Call it a Wrap and the Vitamin Shoppe catered the event with healthy wraps and protein shakes.

Health issues of current central concern were brought to awareness at the fair. Of such were sickle-cell anemia and diabetes covered by the nursing students. Biology and pre-med students talked about breast cancer prevention and awareness and pollution and pre-dental students gave information on oral cancer. Tri Beta Biology Honor Society also provided information on skin cancer. The physician assistants contributed information on smoking cessation, HIV, sex education and unwanted pregnancy in conjunction with the microbiology students. The physician assistants also ran a table about drinking and driving and alcohol/drug abuse in association Wagner’s Peer Education Group. Students put on goggles simulating what it looks like to be intoxicated and performed simple tasks like walking in a straight line and walking around cones; both were a huge hit.

Attitudes in Reverse had a powerful presence at the health fair. Founded by Mrs. Tricia Baker, the organization strives to bring to awareness, mental health and seeks to encourage those who suffer with mental illnesses to seek help. Baker, lost her son to suicide about three years ago. From her loss, she noticed that his school did not want to acknowledge the existence of his mental illness and simply wanted to erase the memory of him from the school. With assistance of her daughter they founded the organization in order to help others who suffered from depression like her son had. The organization is unique in that it uses the help of service dogs as a mode of therapy because of the powerful and unconditional love that dogs have for people. Misha the collie, a loving and friendly dog, came to visit that day and many who came to the Attitudes in Reverse’s table made a new friend in him, and learned the great influence animals have on mentality.

Although the weather wasn’t the best on the day of the health fair, with bouts of rain, windy and cold, students came and went as they passed by the oval on the way to class. The DJ kept spirits high with dance music as the students had to wait by their tables in the cold. The most important thing – the fair still made an impact on students, no matter how many were in attendance, all because of the committed and united effort of the student coordinators and health science faculty to promote the interconnection of differing health professionals to make a greater impact on how the community treats their own health.

Contributed by Philip Fomina

Not shown are Dr. Nora Lowy and Linda Morris.
AMERICAN MUSEUM OF NATURAL HISTORY

On May 8, Dr. Stearns and the BI 215 “Biodiversity and Ecology” class got a behind the scenes look at the labyrinthine storage and research areas of the American Museum of Natural History. Our tour guide, Dr. David Kizirian, Senior Scientific Assistant Vertebrate Zoology and Herpetology, was more than happy to show us the impressive collection of amphibians and reptiles. We especially enjoyed viewing the snake skin remains of Samantha, a python reportedly 26 ft in length, as well as huge Galapagos tortoise skeletons. We were told that the remains of Lonesome George, the famous tortoise who recently died, was being worked on by the museum. The last known pure Pinta Island giant tortoise died on June 24, 2012, and was received by the AMNH in March to be made ready for permanent display in Galapagos.

Dr. Kizirian also showed us some new herpetology specimens recently acquired by his department. The museum must identify and tag thousands of new specimens each year as well as replacing older decomposing ID tags. DNA identification and the organization of information using modern databases have brought the AMNH into the 21st century. However nothing has completely replaced the field work and hands on collecting that has intrigued field biologists since before the time of Charles Darwin. Now however all collections are made with the point of view of conservation and ecology. Additionally the AMNH is a great educational resource offering multiple programs for students at all levels. It also offers programs for both aspiring science teachers and researchers offering a number of internships as well as a graduate degree. Information can be found on their website www.amnh.org

OPPORTUNITIES

RESEARCH IN ANIMAL BEHAVIOR AND ECOLOGY

Dr. Palestis offers research opportunities for students in the frame of his research project with common terns (Sterna hirundo) in southern New Jersey. Apart of his work with terns, Dr. Palestis is interested in animal behavior and has forwarded numerous student research projects with zebrafish in the past. Please, contact Dr. Palestis for further information at bpaletsi@wagner.edu.

RESEARCH IN GENETICS

Dr. Moorthy offers research opportunities for students with an interest in genetics. In the past, Dr. Moorthy has forwarded student research in genetics with plants and animals. Dr. Moorthy is an expert in using numerous techniques for genetic research. Please, contact Dr. Moorthy for further information at asmoorth@wagner.edu.

RESEARCH ABOUT LIGHT PERCEPTION

Dr. Stearns offers research projects to determine the light sensitivity of animals. Currently, Dr. Stearns is interested in the characteristics of the eyes of Daphnia. However, other animals like the brine shrimp (Artemia salina) or larval mosquitoes (Aedes aegypti) have been investigated in the laboratory of Dr. Stearns. Please, contact Dr. Stearns for further information at dstearns@wagner.edu.

RESEARCH WITH DROSOPHILA

Dr. Cook offers research opportunities for students in the frame of a project with the classical insect model organism, Drosophila melanogaster. At this time, research in Dr. Cook’s lab focuses on endocrine disruptors and their effects on fruit fly development. Please, contact Dr. Cook for further information at heather.cook@wagner.edu.

RESEARCH WITH ZEBRA FISH BRAINS

Dr. Fulop offers research opportunities for students with an interest in vertebrate neuroanatomy and physiology. Zebrafish Danio rerio has become an important model organism for vertebrate anatomy and physiology. Dr. Fulop is an expert in using microscopic techniques for anatomical and...
physiological research. Please, contact Dr. Fulop for further information at zfupol@wagner.edu.

RESEARCH WITH MICROBES

Dr. Bobbitt and Dr. Corbo offer a variety of research opportunities with microorganisms for students. Both follow different aspects of microbiological research, using a wide array of experimental techniques. Please, contact Dr. Bobbitt and Dr. Corbo for further information at kbobbit@wagner.edu or at ccorbo@wagner.edu.

RESEARCH WITH MOSQUITOES AND CRABS

Dr. Onken offers research opportunities for students in the frame of a project in which he collaborates with scientists from Washington State University, the University of Idaho, and the University of Alberta (Edmonton, CA). The project is funded by the National Institute of Health and studies the physiology of the midgut of larval yellow fever mosquitoes (Aedes aegypti).

In collaboration with colleagues from the U.S. (Mt. Desert Island Biological Laboratories, Maine), Brazil (University of São Paulo in Ribeirão Preto, University of Paraná in Curitiba) and Canada (University of Manitoba in Winnipeg) Dr. Onken pursues research with Crustacea related to the osmoregulatory capacities and mechanisms of crabs. Please, contact Dr. Onken for further information at horst.onken@wagner.edu.

WORK IN THE GARDEN OR GREENHOUSE

Students interested in collaborating in the greenhouse and/or garden during the fall of 2013 should contact Dr. Onken (horst.onken@wagner.edu).

BE A LIMULUS ASISTANT EDITOR

Proficient student writers are invited to become assistant editors for the newsletter of the Department of Biological Sciences. If you are interested, please, contact Dr. Onken (horst.onken@wagner.edu).

PUBLICATIONS


PROFESSIONAL MEETINGS

E.C.S.C. CONFERENCE

On April 20, approximately 360 participants from 17 institutions of higher education — mostly undergraduates in the physical, chemical, biological and social sciences — attended the 67th Annual Eastern Colleges Science Conference on the campus of Providence College in Rhode Island.

Wagner College undergraduates gave three platform presentations and 12 poster presentations of their empirical research. One Wagner student submitted a completed scientific paper for consideration for an excellence award.

Three Wagner students won excellence awards for their presentations:

Faiz Abed, a biology major who was mentored by Dr. Ammini Moorthy, won for his poster presentation, “Teratogenic Effects of Stannous Chloride at Various Concentrations on Zebrafish (Danio rerio) Embryos”

Eden Stark, a microbiology major mentored by Dr. Kathleen Bobbitt, won for her poster presentation, “Presence of Methicillin-Resistant *Staphylococcus aureus* (MRSA) in Wagner College Athletic Facilities”

Vincent Lombardo, a physics major mentored by Dr. Otto Raths, won for his platform presentation, “The Brachistochrone Problem”

A special treat for the students, faculty and staff who attended the Eastern Colleges Science Conference was reuniting with former microbiology professor, Dr. Adam Houlihan. Dr. Houlihan relocated to Randolph College, Virginia, and attended with his student who presented her research on free range chickens.
ALUMNI

A LETTER FROM CHRISTINA

Dear Wagner Friends and Faculty,

I am very excited to announce that I successfully defended my dissertation entitled “The Role of Hypoxia in Air Pollutant-Induced Cardiovascular Dysfunction” and will be receiving my Ph.D. from the Curriculum in Toxicology at the University of North Carolina Chapel Hill this May. It feels wonderful to have accomplished this goal, and I am so thankful to each of the fabulous faculty members at Wagner who inspired me to follow this course.

After coming to Wagner in 2005, I immediately knew that biology was the only major for me, and after meeting Dr. Moorthy and later having her as my advisor and research mentor, my interest in science blossomed. Each class I took at Wagner gave me a truly superb foundation to continue my studies in graduate school. Cells, Genes, and Evolution, Gene Expression and Development, and Genetics with Dr. Moorthy were excellent core courses that established my knowledge base in basic and molecular biology. They prepared me perfectly for Molecular Cell Biology with Dr. Cook, and I use the principles I learned in her class literally everyday in my graduate research. Biodiversity and Ecology and Statistics with Dr. Stearns were excellent preparatory classes, and I actually solely used my statistics notes from his class to complete my graduate level statistics courses. In addition, the final Capstone course with Dr. Stearns prepared me to give lectures and lead discussions, something that has been very useful since I perform my research at the United States Environmental Protection Agency, and I am required to present my findings at weekly seminars to help guide regulatory decisions. My intermediate learning community with Dr. Palestis combined Animal Behavior and an art class entitled Animals in Art. This was the most wonderful experience and allowed me to understand both scientific principles and explore artistic expression in the sciences. Forms and Functions of Life and Animal Physiology with Dr. Onken are directly applicable to my current research and prepared me wonderfully to study complex rodent cardiac physiology and understand pulmonary and neural reflex connections in cardiac responses. My independent research with zebrafish with Dr. Moorthy, Dr. Fulop, and Dr. Corbo was my first research experience, and I cannot express how critical it was to my development as a scientist. Believe it or not, my principle investigator is actually starting an air pollution study with zebrafish this summer!

I am now applying for teaching positions at several small liberal arts and community colleges in the area. My husband, Alex, and I plan to stay in North Carolina for as long as possible because we absolutely love this state! I cannot thank all of you enough for your wonderful help and support throughout my time at Wagner and beyond, and I hope that you all know what an incredible impact you have on your students and how meaningful your work is in preparing future scientists.

Sincerely,
Dr. Christina Perez (nee Lamb)

Comment of the editor: Look at the happiness that is shining in this photograph.

CONGRATULATIONS FROM ALL OF US HERE ON GRYMES HILL!

ROBERT PIEGARI SENT A LINK

Robert Piegari shared a website that may be of interest for professors and students. Check it out: http://www.arkive.org/

Dear Alumni,

If you are interested in contributing to our newsletter, you are very welcome to do so. Contact Dr. Onken by e-mail (horst.onken@wagner.edu) with your submission, comment, ideas or questions! We are excited to hear about where you are, how and what you do!
GUIDELINES FOR CONTRIBUTORS
Authors in all sections should keep in mind that not all readers are specialized in their area of interest. Keep your contribution on a level that everybody can understand.
Contributions may vary in length between about 50 and 500 words and must be submitted by e-mail to horst.onken@wagner.edu.
Photographs or other images that accompany an article are very welcome, but must be submitted as separate files (high quality jpg is the preferred file format) attached to the e-mail. Be aware that photographs/images may be minimized in size.
Indicate the section of the newsletter where you want your contribution to appear.
The deadline for submission of a contribution is the 20th of the month. Contributions received later may or may not be considered.
The editor reserves his right to edit your contribution or post an immediate response.
Editing may involve to publish contributions in other sections as indicated by the author.
All contributions will clearly indicate the author's identity.
All contributions are reviewed and publication may be refused by the editor.

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