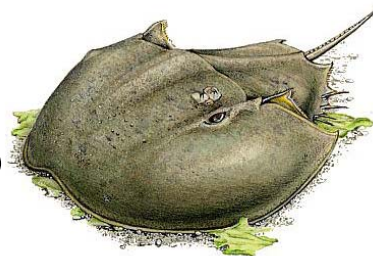


LIMULUS



NEWSLETTER

Department of Biological Sciences, Wagner College, Staten Island, NY

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February, 2009

LETTER FROM THE EDITOR

THE FEBRUARY LIMULUS

The current LIMULUS wears the fingerprint of our new student assistant editor, Nidhi Khanna. Nidhi did a great job, reviving our series about adjunct professors of our department. Moreover, she made two interesting interviews and wrote an article about celebration of Darwin's birthday. Dr. Moorthy contributed a "lateral thinking quiz" (see page 8).

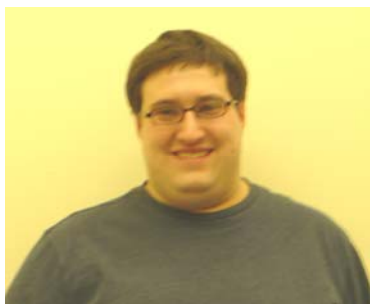
I hope you enjoy our February Limulus,

Dr. Horst Onken, The Editor

BIOLOGY STAFF AND FACULTY NEWS

ADJUNCT PROFESSOR SERIES

CHRISTOPHER CORBO



Professor Christopher Corbo joined the faculty of the Department of Biological Sciences in the summer 2006 semester. Corbo has been part of the Wagner community since his time as an undergraduate student. He graduated from Wagner

with a Bachelors Degree in Biology in 2006. As an undergraduate student, he was a proud member of the Tri-Beta Honor Society, and unaffiliated Sigma Xi. Sigma Xi is a scientific research society that was founded in 1886. As a member of this prestigious honor society, Corbo participated in the Sigma Xi Student Research Conference. He received recognition for the Best Presentation in Cell Biology. He recounted his fondest memory of that conference stating, "It was very exciting to get this distinction because that was an international conference. Many prominent schools such as Harvard, Yale, and Cambridge participated in the conference, and it was wonderful that students from such a small school like Wagner could get recognized for doing great things."

Corbo continued his higher education at Wagner, and obtained a Masters Degree in Microbiology in 2008. He is simultaneously teaching at Wagner and working towards a PhD in Neuroscience at the City University of New York. Currently, Corbo is working on collaborative research with Dr. Fulop and his mentor Dr. Alejandra Alonso of The College of Staten Island. Corbo went into detail about his endeavor, explaining,

"The collaboration aims to develop a transgenic zebra fish that will model the cellular events in Alzheimer Disease." He is particularly interested in Neuroimmunology research, specifically focusing on glial cells and how they evoke diseases, like Alzheimer's, in the brain.

As a professor, Corbo teaches a variety of classes including Electron Microscopy (both the lecture and lab sections), Basic Histology Labs, Exploring Biology Labs, and Neuroanatomy and Physiology Labs. He was very enthusiastic about coming back to Wagner as an adjunct professor. "As a student," he recalls, "I was not that interested in research. The professors at Wagner gave me a lot of insight and I realized that I could be interested in other areas beside research. The Wagner community invested a lot of time into me, and teaching is a great way to give back to Wagner while still being at a place I enjoy."

LAKSHMI YERNENI

Professor Lakshmi Yerneni began teaching at Wagner in the



spring 2008 semester. Prior to her career at Wagner, Professor Yerneni taught in her native India for thirty years. She spent the majority of her career teaching zoology. She has also served as a guest speaker at many Indian universities, specifically addressing the topics of genetics and biotechnology. In addition to teaching zoology, Professor Yerneni

was an active volunteer in her community. She gave her time to medical and veterinary camps in India, and served as an advisor to many students in a Youth Leadership Training Program at an AIDS Awareness Camp. Professor Yerneni completed her higher education at one of the most prestigious universities in Southern India. She attended Vikram University and received both her Masters of Science in Biology with First-Class Honors, and her Masters of Philosophy (M.Phil) in Biology with First-Class Honors.

As an adjunct professor at Wagner, Professor Yerneni has taught the Cells, Genes, and Evolution Labs and the Human Anatomy and Physiology Labs. She moved to Staten Island about two years ago, and was aware of Wagner's great reputation on Staten Island. Professor Yerneni decided to join the Biology department's staff, and she has enjoyed her brief time at Wagner. She stated, "All of the faculty members are very cooperative and understanding." As a newcomer to Wagner





and the United States, Professor Yerneni noticed some differences amongst her students at Wagner and the students that she taught in India. She marveled, “Wagner students show a lot of enthusiasm for the subjects, and this is evident in the class discussions that we have in lab. I also noticed that American students are more independent thinkers.”

Professor Yerneni is particularly interested in genetic research, and hopes to conduct more studies while she is teaching at Wagner. She was impressed by all of the technological differences between the United States and India, and commented, “I hope I will have the opportunity to focus more on research. In India, it was difficult to perform scientific research because the resources were limited. I used to work in a rural area in India, and the opportunities for research were scarce.” She added, “The teaching methods in the United States are a little different from the methods used in India. In India, most tests are prepared by the use of pen and paper, and computers are rarely used. As a professor at Wagner, I am required to prepare PowerPoint presentations. The resources are much greater and are more advanced. Only a few years ago, overhead projectors were introduced in India.”

Contributed by Nidhi Khanna

BIOLOGY STUDENT NEWS

PRE-HEALTH AT WAGNER: AN INTERVIEW WITH TANYA MODICA



Wagner College’s Pre-Health Program attracts many new incoming freshmen every year. Dr. Wendy deProphetis-Driscoll and Dr. Heather Cook are co-chairs of the Pre-Health Committee. Many Wagner seniors are applying to prestigious medical, dental, and graduate schools across the country. A handful of Wagner students wish to pursue a career in dentistry.

Many underclassmen sought a student’s perspective on the application process. Recently, I sat down with Tanya Modica, a senior here at Wagner, to gain some insight into the pre-dental application process.

Q: What is your major? Do you have a minor?

A: I am Biology major and I have a minor in Chemistry.

Q: When and why did you decide to pursue dentistry?

A: I don’t exactly remember when I decided I wanted to become a dentist. I do recall that my interest in biology sparked when I was in the sixth grade. At one point, I considered veterinary school and even medical school. When I was younger, I had braces and I remembered all the frequent visits I made at the orthodontist. I liked seeing the way my teeth transformed through the process, and I realized that I wanted to help people with oral health problems.

Q: Can you briefly describe the application process for dental school?

A: The application is completed online, and there is no paper version. Each application cycle starts in June, and you want to

start filling out the application as soon as it becomes available. The website that other students should visit is www.adea.org. I found the website to be useful and a little frustrating at the same time. The great thing about completing the application online is that you could save your work and go back to it whenever you want. The website tells you if the schools you applied to received all of your materials. Schools can also notify you if you have been denied or accepted.

However, I did encounter some problems with application process. Wagner uses a unit system, and dental schools want you to convert units to credits. The labs at Wagner count for zero units, and sometimes it was a bit frustrating to figure out the value of the units in credits. The Registrar converts labs to around 4.4 units, and on the website, it will not allow you to input the conversion yourself. The website has set credits, and when I had to fill out the application, my labs could be counted for either 4.2. or 4.5 credits. I know some of my friends who are applying to medical school are able to input the credit conversions, and you simply cannot do that with dental school applications. I decided that it would be best to list my lab credits as 4.2, even though the value was a little more.

When students fill out the application, I would suggest that you have your resume on hand. My resume was very detailed and I ran into some problems when I was filling out my application. The website counts characters, so you have to make sure that you are precise and concise. You need to decide what details in your resume are absolutely important. The website allows you to upload your personal statement right on the site, but you have to remember that all of the characters will get counted, and it may be possible that your personal statement may get messed up accidentally.

Q: Did you take any review courses to prepare for the DAT? Did you find them to be useful?

A: I took a review course through Kaplan. I thought certain aspects of the course were useful. The course syllabus is available online, and you can do review questions and take practice tests from virtually any computer. The instructors helped organize the information into the topics that were most important for the DAT. I found the practice tests beneficial because they help you get comfortable with actual test setting. We took several practice tests on the computer, and they lasted four hours. It made you get a real feel for the test, and I think that is really important. Kaplan provided us with flashcards, review books, and CD-ROMS. They gave useful tips on how to answer the multiple-choice questions, and I am glad I took the course.

Q: Do you work at a dental office? Where should pre-dental students look to get more experience in the field?

A: I was planning to work with my orthodontist, but he was semi-retired. It was a little difficult at first to find a dentist office where I could apply for a job. I eventually shadowed a periodontist, and now I work as a dental assistant. The job is really hands on, and I am responsible for taking X-rays and developing them. My job includes studying models of patients’ teeth, and I am extremely lucky that the dentist I work with teaches me as we go along. He explains why certain things happen and the causes of specific dental problems.





I heard that the Staten Island University Hospital has a good volunteer program in the dentistry department. I was planning to volunteer there, but I knew that they did not let you have more of hands on experience right away. My suggestion is that if you are really interested in dentistry, start volunteering at the hospital as soon as possible. They make you do mostly paperwork in the beginning, and then as time goes on, they let volunteers assume more responsibilities.

Q: Is there any other advice you would give pre-dental students?

A: I would tell students to get their resume finished on time. I went to the Career Development office on campus, and they really helped me with my resume. Dr. Cook and Dr. deProphe-tis-Driscoll looked over all of my applications and I found that to be helpful as well. If students are going to ask professors for recommendation letters, I advise them to have their resume and a cover letter prepared. A cover letter tells the professors what they are writing the recommendations for, and also bring an official transcript. Lastly, I would tell students to start studying early for the DAT. I felt that I studied too much over the summer, and basically tired myself out. I think you need to make sure you find a balance between studying and fun. Make sure you have fun and don't wear yourself out!

Tanya is one of the few students applying to dental school this year. She was really surprised by the large number of pre-dental students that currently attend Wagner. She added, "When I came to Wagner, I think there were about five students in the freshmen class who were considering applying to dental school. There are so many more pre-dental students now, and I feel this interview will help underclassmen get a better understanding of the application process. I wish I could have received advice from upperclassmen when I was going through the application process. It would have made the process a little bit easier and I would not have felt so overwhelmed.

On behalf of Limulus, I would like to thank Tanya for allowing us to interview her. Good luck with your final semester and we wish you the very best for the future!

Contributed by Nidhi Khanna

OPPORTUNITIES

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*). Mosquitoes are vectors of a number of parasites, transmit devastating diseases like malaria, yellow fever and dengue, and are a major threat to the health of billions of people on our planet. The principal investigators of this project address larval mosquitoes, because it appears more straightforward to



fight these vectors as long as they are confined in an aquatic habitat.

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. Together with Dr. Alauddin



(Chemistry) and Professor Beecher (Biology), an ecophysiological study is in an early stage of planning.

Dr. Onken can offer research opportunities for two to three students. If

interested contact Dr. Onken in his office (Megerle Science Hall Room 411), lab (Megerle Science Hall Room 406) or via e-mail (horst.onken@wagner.edu) or phone 420-4211.

Contributed by Dr. Onken

EXPERIENCES

RECYCLEMANIA: AN INTERVIEW WITH DAVID HAMMILL



Wagner College's very own Sustainability Committee is participating in an exciting competition called "RecycleMania." Many notable colleges and universities around the world partake in this annual event. Currently, 514 colleges and universities have registered to compete this year alone.

In order to fully understand the purpose of this competition, it is important to be aware of the history of RecycleMania. About eight years ago, Ed Newman, (a student from

Ohio University) and Stacy Edmonds Wheeler, (a student from Miami University) spearheaded the idea of RecycleMania. The first official competition was between Ohio and Miami University, and lasted about ten weeks. After its first year as a certified competition, Miami University held the title as champions.

RecycleMania continues to be a growing competition worldwide. The ultimate goal of this competition is to help reduce the amount of waste that is thrown every day at college campuses. RecycleMania wants to promote recycling, and this international competition is an excellent way for more students to get involved in an important cause.

All colleges and universities that offer on-site degrees in North America are qualified to participate in this annual competition. Secondary institutions outside North America are allowed to participate in the competition, but will only be able to participate in the benchmark division if they offer certificates, and not degrees. Higher institutions are judged by reporting the total amount of trash that they dispose and recycle



weekly. The waste is categorized into four divisions: the largest amount of recyclables per capita, the largest amount of total recyclables, the least amount of trash per capita, and the highest recycling rate.

Wagner College's Sustainability Committee has decided to partake in this national event. David Hammill, the Coordinator of the Sustainability Committee was generous enough to take the time out of his busy schedule to elaborate more about Wagner's participation in this event.

Q: How did the Sustainability Committee first hear about RecycleMania? How many years has Wagner been participating in the competition?

A: The Sustainability Committee first heard about RecycleMania via one of the waste publications that we subscribed to. This will be Wagner's first year participating. Within this competition there are two ways to participate. One such way is the full on competition where the entire campus is involved. Since it's our first year, we have decided to take part in the benchmarking piece of the competition. This means that we can just use pieces of the campus as compared to the whole campus. However, this also means we are not eligible for a trophy. It was a tough decision to decide to participate in the benchmarking piece, but it's proven to be a positive one as the competition presents a large organized effort. Since Wagner is in its infancy in terms of recycling, it provides a great way to test the waters.

Q: How do you plan to get the Wagner community to participate in the competition?

A: Our plans to get the campus participating start in the residence halls. It was our belief that students are the ones who spend the most time on campus and will be the force behind putting the trash and recyclables in their respected places. So far we've reached out to Resident Education and asked to provide floor programs for the RA's. This has proved to be mildly successful with a handful already signed up.

Q: Is everybody in the community allowed to participate? Will you be revealing the data you collected to the rest of the Wagner community?

A: Everyone in the community is indeed encouraged to participate. However with limited resources, we have just focused on the residence halls in order to try to get the most bang for our buck. The data that is collected will be available to the Wagner community. It will start with electronic sources in an attempt to save paper.

Q: I read that some schools give out awards to participants. Will the Sustainability Committee giving out prizes for its best competitors?

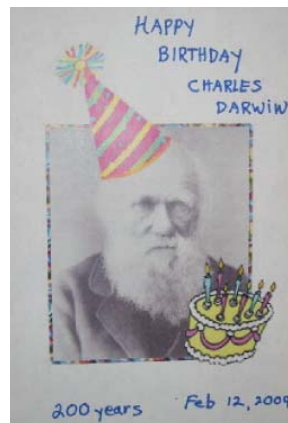
A: The Sustainability Committee will be giving out shirts to those caught doing the right thing, i.e. recycling. This is what we are calling "get caught green handed." We wish that we could take the credit for that, but another school came up with the phrase. One way that we are encouraging students in the dorms will be to provide pizza parties for those doing the most recycling.

We are excited that the Sustainability Committee has decided to participate in this international competition, and aims to promote awareness about recycling. Best of luck to all participants! For more information about RecycleMania, please visit

www.recyclemaniacs.org. We would also like to give a special Thank You to Dave Hammill for speaking with the Limulus Staff about this excellent cause he is endorsing all over campus! If you would like to get involved with RecycleMania, please contact David Hammill (david.hammill@wagner.edu).

Contributed by Nidhi Khanna

BIOLOGY DEPARTMENT CELEBRATES DARWIN'S 200TH BIRTHDAY



February marked two important milestones in history. Abraham Lincoln and Charles Darwin both celebrated their 200th birthday on Thursday February 12, 2009. President Lincoln and Darwin served as important revolutionaries of their historical epochs, and are still admired by individuals around the world. Many people across the globe commemorated Darwin's historic anniversary in several ways. Documentaries, lectures, and museum visits were planned, and even a

replica of the H.M.S. Beagle was scheduled to sail in the exact route that Darwin traveled while aboard the famous Royal Navy ship. Although many scientists and biology enthusiasts are remembering Darwin's accomplishments, some individuals often fail to fully understand the concept of evolution and the obstacles Darwin encountered when he tried to have his ideas acknowledged by rest of the scientific world.



Darwin presented his theory of evolution in 1859 and faced major criticism for his most famous work, *The Origin of Species*. Despite receiving very little support for his brilliant insight, Darwin did not stray away from his beliefs. Alfred Wallace single handedly proposed the idea of natural selection prior to Darwin's publication of *The Origin of Species*. Ac-





According to *New York Times* reporter Nicholas Wade, Wallace simply did not have the audacity to persuade the science community to consider his original idea of natural selection. However, Wade portrays Darwin in a more positive manner and praises his ability to methodically study any opposition to his theory of evolution and natural selection.

Darwin's work influenced the discipline of biology, and many scientists have realized that Darwin made fairly accurate claims. Modern science allows biologists to extensively study a vast variety of resources, such as fossil records and DNA. Darwin was not fortunate enough to be able to utilize a detailed fossil record. Scientists today can study fossils that provide ample evidence of life that dates back more than three billion years ago. The introduction of genetic information and DNA was not fully comprehended by scientists until almost a hundred years after Darwin published his renowned *Origin of Species*. Even though certain aspects of Darwin's theory were inaccurate, many scientists are amazed by method in which he was able to formulate his ideas with such limited resources. Günter Wagner, an evolutionary biologist at Yale University, expressed his appreciation for Darwin in a recent article in *Time Magazine*. He said, "You can't even start to make sense of all this data without a framework of evolution."

Many scientific break-throughs have served as vital evidence for Darwin's theory of evolution and natural selection. Scientists have studied bacteria that are able to protect themselves from powerful drugs. They can now conclude from their observations that gene mutations have allowed these bacteria to become more resilient against specific drugs, thus enabling them to produce generations of offspring with advantageous traits.

Another important idea that Darwin proposed dealt with the issue of common ancestry amongst various species. In the past two decades, paleontologists have been evaluating fossil records of land whales that had legs. Scientists believe that contemporary whales may be related to these land whales. DNA has been tremendously useful and has allowed scientists to compare genetic similarities amongst various species. DNA evidence shows that human beings share more genetic similarities with mushrooms than with sunflowers.



As a curious science student, I have come to appreciate all of Darwin's major accomplishments in the field of biology. It is astonishing that Darwin could make so many claims to his theory without the use of modern technology. He has helped modern biologists understand certain concepts in a more organized fashion.

In honor of Darwin's major contributions to the field of science, the Biology Department joyously celebrated his 200th birthday. Stephanie Rollizo and Professor Linda Raths spearheaded the event. The fourth floor of Megerle was decorated with various images that pertained to Darwin, including the finches Darwin studied, maps of his voyages around the globe, the Beagle, and of course, pictures of the birthday boy himself!



The Biology Department distributed specially made stickers of Darwin. The celebration did not end there! Faculty, staff, and students from the sciences participated in the event by enjoying several homemade foods and partaking in interesting conversation. The event was a huge success! We would like to thank to all those who attended and prepared delicious food. A special thank you goes out to Stephanie Rollizo and Professor Linda Raths for organizing such a great event!

Contributed by Nidhi Khanna with photographs from Dr. Onken

PUBLICATIONS

Etinger, A., J. Lebron, and B.G. Palestis. (2009, in press). Sex-assortative shoaling in zebrafish (*Danio rerio*). *Bios*.

Moffett, D.F. and **Onken, H.** (2009, in press). The Cellular Basis of Extreme Alkali Secretion in Insects: A Tale of Two Tissues. In: *Epithelial Transport Physiology* (ed. George A. Gerencser). Totowa, New Jersey: Humana Press.

Onken, H., & Moffett, D. F. (2009). Revisiting the cellular mechanisms of strong luminal alkalinization in the anterior midgut of larval mosquitoes. *Journal of Experimental Biology*. 212: 373-377.

Onken, H., Patel, M., Javoroncov, M., Izeirovski, S., Moffett, S.B. & Moffett, D.F. (2009, in press). Strong alkalinization in the anterior midgut of larval yellow fever mosquitoes (*Aedes aegypti*): Involvement of luminal Na^+/K^+ -ATPase. *Journal of Experimental Zoology*. Published online: DOI: 10.1002/jez.512

Palestis, B.G. (2009, in press). Use of artificial eelgrass mats by saltmarsh-nesting common terns. *In Vivo*.

Zaatari, D., **Palestis, B.G.** & Trivers, R. (2009, in press). Fluctuating asymmetry of responders affects offers in the Ultimatum Game oppositely according to attractiveness or need as perceived by proposers. *Ethology*.





PROFESSIONAL MEETINGS

FUTURE MEETINGS

DO NOT FORGET TO PREPARE FOR THE FOLLOWING CONFERENCE:

The next **Eastern Colleges Science Conference** will be held at Wagner College (Staten Island, NY) on Saturday, April 24, 2009. The deadline for abstract submission is March 16. For any further details visit:

http://www.wagner.edu/departments/biological_sciences/ECSC

Volunteers from Wagner College who want to help to make this meeting an extraordinary experience for all our visitors should contact Professor Rath (lraths@wagner.edu).

ALUMNI

Some responses from alumni to the January Newsletter:

Dr. Onken,

Thank you for sending me the recent Biology newsletter. As a proud member of the Class of '79, I was a Biology/Psychology double major and have nothing but wonderful memories of my years on the 4th Floor. Under the guidance of Dr. Yarns, Dr. Hazen, Dr. Priddy and Dr. Kanzler we learned in an environment which was unique and that I hope remains today.

The relationship we had with our professors was special in that we not only had the utmost respect for them, but truly enjoyed them as individuals. Each day for lunch the faculty would eat together in the conference room over a daily bridge game. Students were allowed to observe. It was wonderful since all but Dr. Yarns took the game seriously as we commented on the day's events peppered with a brief retort by a professor in the middle of a trump...whatever that is?

Dr. Yarns, the most fit of the professors, would ride his bike up Howard Ave each day. ... Yarns took his subject matter seriously, but was not afraid to inject humor into his lectures.

Dr. Annette Ruark-Hazen was the most brilliant woman I'd had the honor of knowing. She was able to break down Neuroanatomy/physiology in a class by sharing the information, not preaching. She was also one of the first, female, ordained Episcopalian priests ordained. While dissecting a calves' brain in neuroanatomy lab, I asked her how she reconciled the Creation/Big Bang Theory, she calmly and directly said, "Someone had to push the button."

I spent the most time with the above mentioned professors, but I have to say that the faculty in general shared a common trait. They all took what they did very seriously and put the students first, but most importantly they took themselves lightly. It was a most endearing quality. I would love to say that I took my degree and pursued a related career, but alas I had an eighteen year career on Wall Street which ended after 9/11. I've pursued more creative endeavors, but I have to say that I still recall the material learned in the labs and can converse about human anatomy and physiology with a level of confidence. Thank you again for sending the newsletter. It forced me to

take a trip down memory lane, a wonderful place in this instance, and remember some major influences in my life whom I admired and from whom I learned about Biology and Humility.

All the best,
Harold Theurer Class of '79

Dr. Onken,

Thank you for including me on your distribution list for the Wagner College Biology Department Newsletter. I continue to be proud of Wagner and its ability to inspire students in Biology and the Health Sciences.

In the section on when Biology became prominent at Wagner, I wonder about that as well. My first impulse is to suggest the Dr. Ralph E. Deal may have been the beginning of that. He retired during my Senior Year in 1966 but I recall that prior to his becoming THE Biology Professor at Wagner he was a young professor in a Columbia University annex 'The Cloisters' and was a Bio-Evangelist who would give tent lectures along side of William Jennings Brian with the purpose of promoting interest in making biological sciences a subject that would be taught at all liberal arts colleges. Therefore I imagine one need not look any further back in time than Dr. Deal to find when Wagner provided courses in biological sciences. Natale Collosi taught microbiology at Wagner but I am not sure if that was there before or after Dr. Deal as microbiology was a separate track, quite possibly aligned with Nursing, when I was a student.

The topic I spoke on when we had the dedication of our electron microscope has now made it into the fabric of biology and immunology science. Here is a recent review by Dutch Scientists that makes that point. I also include a "preview" I wrote for a confirming article.

And, here is an online Power Point Presentation that includes some of the slides I presented at Wagner.

http://www.geocities.com/artscience/Crosby/Art_and_Science_files/fullscreen.htm

Best regards.

Art



Arthur O. Anderson MD
Director, Office of Human Use and Ethics, Research Integrity Officer
US Army Medical Research Institute of Infectious Diseases
1425 Porter Street, Fort Detrick
Frederick MD 21702-5011

"There is always an easy solution to every human problem -- neat, plausible and wrong." - H. L. Mencken

Thanks you so much for forwarding the newsletter to me. I thoroughly enjoyed reading it. Very well put together with a lot of information. I graduate in 1971 with a BS in Biology. Things have really changed! For the better I might add.
bob piegari





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!

MISCELLANEOUS

If your contribution does not fit in any of the sections above, you can post it here.

DO YOU MISS A SECTION? LET ME KNOW WHICH AND MAKE A CONTRIBUTION!

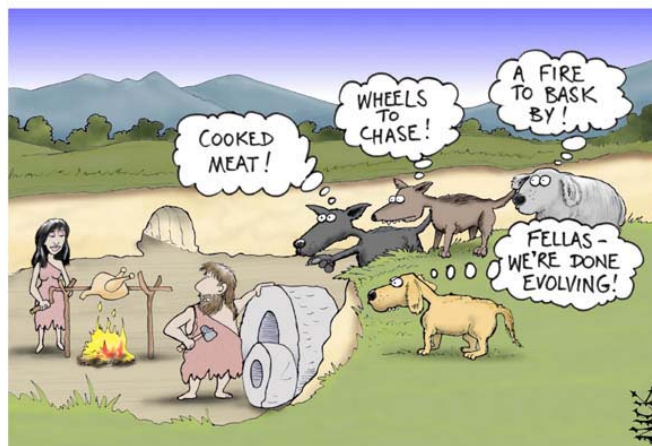
PUZZLES, JOKES, QUOTES, CARTOONS

LATERAL THINKING WORD PUZZLES:

<u>Man Board</u>	<u>Stand I</u>	/R/E/A/D/I/N/G/
R O ROADS D S	cycle cycle cycle	Q M.S. Ph.D.
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Answers in the next issue of LIMULUS!

CARTOON:



Forget the experts; domestication of the dog only took about 8 seconds.

(from www.lab-initio.com)

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 editor reserves his right to edit your contribution or post an immediate response.

Editing may involve publishing 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.

DEADLINE FOR THE NEXT NEWSLETTER:

MONDAY, March 23

The Editorial Board:

Editor: Dr. Horst Onken

Assistant Editor: Stephanie Rollizo, Department Secretary

Student Assistant Editor: Nidhi Khanna

Student Assistant Editor: N.N.

