A Note from the Chair...  

**STEMM: your world and welcome to it**

I had other ideas about what to write for this issue of the BioLogue. But those ideas have simply been overwhelmed by discussions about the world of STEM. STEM schools. STEM scholarships. STEM crisis. Have you noticed?

**STEM** is the world you live in and aspire to. STEM is an acronym for Science, Technology, Engineering, and Mathematics; sometimes Medicine is also appended, creating STEMM, or STEM². The prominence of STEM in headlines, government policies, and discussions on campus comes from a concern that the United States is at risk of losing its position as global leader in scientific and technical innovation and development. The US has held this leadership position for decades. However, broad changes in this country and others now challenge that position. Among these changes are such phenomena as the development and spread of the internet and global communications, which allow participation in the world economy from remote locales; the advancement and increasing openness of China and India, which together have one-third of the world’s population and which actively promote training in science and technology; and trends in the education of students in the US and elsewhere, so that American students typically place low on STEM skills tests. (In the most recent of these international comparisons, US students ranked 17th of 30 countries in science and 24th out of 30 in math; see http://www.msnbc.msn.com/id/22098380/).

**Dean Wheatly: Top Woman of 2007**

Dr. Michele Wheatly. Dean of the College of Science & Mathematics and Professor of Biology at Wright State University has been selected as one of the Dayton Daily News Ten Top Women of the Miami Valley for 2007.

Dr. Wheatly was recognized for her many contributions to both her profession and community. She has been a strong advocate of programming for many groups, including women, the disabled and first-year students, within the sciences at Wright State. In addition, Dr. Wheatly runs a research laboratory studying mechanisms of calcium transport. In her own comments on the award, Dr. Wheatly was particularly proud of her role directing a grant from the National Science Foundation to support access to lab sciences for students with disabilities. On a lighter note, she cited learning to water ski as her greatest challenge, and leading a balanced life as her best piece of advice for younger women. Dr. Wheatly is married and has three teenage children.

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Diggs Laboratory Dedicated

The Matthew O. Diggs III Laboratory for Life Science Research was dedicated on November 9, 2007. The Biological Sciences III building will house research labs for faculty in the Biology and Biochemistry Departments. It is one of the first Ohio university research laboratories registered under LEED (Leadership in Energy and Environmental Design) due to its “green” building design. For more information visit www.wright.edu/cosm.

Chair’s Note, continued….

A popular treatment of many aspects of this issue can be found in Thomas Friedman’s book *The World is Flat*, widely quoted and cited since it was published in 2006. Friedman looks at patterns in production and exchange of global goods and knowledge. The Flat World referred to in his title is Friedman’s way of noting that people and information around the globe are more connected than ever. As a result, location matters less and less to today’s workers; someone growing up in Bangalore, India may now have as good a chance (maybe better!) of making it big in the world economy as someone born in Dayton, Ohio. It is worth noting, though, that others argue against taking this model too far. Richard Florida, author of *The Rise of the Creative Class*, and who you might have heard speak at Wright State last year, notes that in fact location really does still matter. The global centers of creativity and development remain focused in just a couple dozen geographic regions. Some of these regions indeed are in China, India, and Brazil. But the US remains strong, and in fact Ohio sits within one of the most productive of these “creative corridors.”

So what does all this mean to you? First, you need to realize that you will graduate into a world where you will be competing for jobs with a globally-trained workforce. India and China really are serious about training their populations in science and about commanding a larger share of the global economy in science and technology. But second, you need to realize that the opportunities are vast. Major global issues—health care, environmental protection, energy, and others—await your talents. The demand for well-trained scientists will continue to be high, and many of the job areas projected for strong growth are in science and technology, including Biology (see www.bls.gov/oco/oco1002.htm for career information from the Bureau of Labor Statistics).

In the US, the response to all this is a broad based discussion, from federal to local levels, about how to attract and retain American students in STEMM disciplines. In Ohio, Governor Strickland has signed a bill (House Bill 119, the Ohio Innovation Partnership) providing funds for initiatives such as supporting scholarships for students in STEMM majors, hiring more research scholars at state universities, and implementing STEMM schools designed to teach pre-college science in innovative ways. At Wright State, we also have many other efforts ongoing, including curricular programs to enhance student success in STEMM majors, excellence in training teachers of science, opportunities for student involvement in research and internships, and more.

The objective of all these efforts is to promote a vibrant future for Ohio and the US by increasing the number of individuals trained in the sciences. You are on that path already. Your job now is to accept the challenge: hone your skills, take advantage of the many available opportunities, and work to make yourself competitive in that global workplace. If the fear is of a crisis in STEM---then the solution to that crisis is you!

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david.goldstein@wright.edu
Personally, I believe that our American system works as long as you participate in it. You must vote and make your voice heard. Otherwise you will be left out.

Jaramillo, Mari Luci (Educator, Diplomat)
Department Golf Scramble Provides Scholarship Funds

The 1st Annual Department of Biological Sciences Golf Scramble was held on October 6, 2007 at Waldon Ponds in Indian Springs, Ohio. Faculty, staff, alumni and WSU students were invited to participate in the event. The over $8,500 raised by the event (before expenses) will be used for scholarships to support undergraduate and graduate student education, research and travel. In addition to the registration fee, individuals were able to contribute to the scholarship fund through participation in the silent auction, purchasing raffle tickets and by sponsoring a hole during the golf scramble. The Silent Auction was for Princeton Review and Kaplan courses and raised over $2,000 for the scholarship fund.

Finally, a special thank you to Dr. Mill Miller for volunteering to organize the golf scramble. It takes a lot of organization, patience and drive to pull off such a great event. Thank you for your efforts and for helping to show Biological Sciences students that their department cares about their success.

New Pre-Health Website Unveiled

Jacqui Neal, Director of Pre-Health programs, recently unveiled a new website for those interested in pursuing careers in the health professions, including medicine, physical therapy, dentistry, veterinary medicine, optometry and pharmacy. The website provides information about the application process, forms and answers to frequently asked questions regarding entrance into different programs. In addition, a calendar of events on the home page notifies students of seminars, student meetings, workshops and application deadlines. Make sure you visit the website at www.wright.edu/cosm/premed.
In the News: Amazing students, alumni, staff and faculty!

Congratulations to the following Fall 2007 Phi Kappa Phi initiates

Laura Bonvillian
Daniel Hellmund
Lindsey Hogle
Charlie Huffman
Nathaniel Pahl
Brandon Tingley

They are honored by the Phi Kappa Phi honor society and by the university. Members of this society are selected from all majors who graduate near the top of their classes. Membership is an honor that lasts a lifetime.

Congratulations to the following Biology faculty and staff for their 2007 Employee Recognition Awards:

Larry Arlian 35 years
Laura Buerschen 15 years

Alumni Updates

- Clint Coleman ('00)- working toward a Ph.D in microbiology and immunology and is employed at Tulane National Primate Research Center.
- Amanda Schrand (formerly Manker, '99)- working toward a Ph.D in materials engineering at the University of Dayton in collaboration with the Air Force Research Laboratory Human Effectiveness Directorate where she performs nanotoxicity testing on cells.
- Emily Dudley, DVM ('94)- employed as the clinical veterinarian in WSU’s Laboratory Animal Resources facility. Dr. Dudley graduated from OSU Vet School.

Bio Alum Returns to Wright State with Teaching Award

Michael Edwards obtained both his BS and MS degrees in Biology from Wright State University. He has served as a Biology faculty member at Edison Community College for the past several years and was recognized this past fall for “outstanding teaching performance” by the National Institute of Staff and Organizational Development’s Community College Leadership Program.

Mr. Edwards will be teaching General Education Biology classes during the winter and spring 08’ quarters. The Wright State Biological Sciences Department is extremely excited to have him back!

Sapna Varia, a graduate student working with Dr. Paula Bubulya, presented her poster on “Elucidating a role for Btf in pre-mRNA transcription and splicing” at the Cold Spring Harbor (NY) meeting on Eukaryotic mRNA Processing. In addition, Sapna and Alok Sharma were selected by meeting organizers to give oral presentations on their research projects at the Rustbelt RNA meeting.
Musical Offices

Biological Sciences Office
Laura Buerschen
Michael Edwards
Dr. David Goldstein
Dr. Roberta Pohlman
Beverly Schieltz

New Location
204 BH (as of 3/08)
110 BH (as of 3/08)
108 BH
220 Diggs (as of 3/08)
228 Oelman
101 BH

Mark Your Calendars!

Winter 2008 Schedule:

- **Jan 7**: Winter quarter classes begin
- **Jan 11**: Last day to register, add classes, or withdraw and receive 100% refund of fees
- **Jan 14**: 70% refund of fees begins
- **Jan 21**: Martin Luther King Jr. Day, University closed
- **Jan 22**: Last day to withdraw and receive 70% refund of fees
- **Jan 25**: Last Day for ALL students to drop a class without a grade
- **Feb 18**: Pre-Health Information Forum
- **Feb 22**: Last day for ALL students to drop a class with a grade of "W"
- **Mar 15**: Last day of Winter quarter classes
- **Mar 17-22**: Final exams for Winter quarter

Need Advising?

If you need to schedule an appointment with an advisor, please call 775-4226 or email bioadvising@wright.edu. Make sure to include the name of the advisor you wish to meet with, along with your availability.

Undergraduate Degrees:
Jacqui Neal & Lindy Lauterbach

Graduate Degrees:
Laura Buerschen

Clinical Lab Sciences:
Bev Schieltz

Applications for June graduation are due by March 1st. Make sure to see the advisor for approval after spring quarter registration.

Congratulations
Fall 2007 Graduates

UNDERGRADUATE
Crystal Blackburn
Whitney Brickner
Daryn Cherry
Rachel Claridy
Matt Dean
Tharu Fernando
Hollie Gallagher
Sarah Hill
Rachel Hoskin
Marian Khan
Andrea King

Curtis Lykins
Pretti Polk
David Powers
Natalie Price
Claudia Schnee
Laura Stapleton
Benjamin Sweeney
Ty Stollings
Amy Wagner
Luke Wollett

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FAX: (937)775-3320

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Matt Dean
Tharu Fernando
Hollie Gallagher
Sarah Hill
Rachel Hoskin
Marian Khan
Andrea King

Curtis Lykins
Pretti Polk
David Powers
Natalie Price
Claudia Schnee
Laura Stapleton
Benjamin Sweeney
Ty Stollings
Amy Wagner
Luke Wollett

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