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Research and Innovation



WESTERN MICHIGAN UNIVERSITY

INQUIRY

OF FICE OF VICE PRESIDENT FOR RESEARCH

DR. LEONARD GINSBERG RETURNS TO FACULTY

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OVPR MISSION

THE OFFICE OF THE VICE PRESIDENT FOR RESEARCH EXISTS TO SUPPORT THE EXTER-NAL FUNDING INITIA-TIVES OF WMU FAC-ULTY, STUDENTS, AND STAFF; TO ASSURE COMPLIANCE WITH ALL APPROPRIATE FEDERAL AND STATE REGULA-TIONS; AND TO AD-VANCE THE OVERALL RESEARCH AGENDA OF THE UNIVERSITY.

WWW.WMICH.EDU/ RESEARCH After four successful years in OVPR, both as associate VP and interim vice president, Dr. Leonard Ginsberg plans to return to the classroom and to his research after a brief sabbatical. Ginsberg will continue to chair the research part of the accreditation review at WMU.

Ginsberg's research areas are in molecular biology and *in vitro* toxicology.

"Over the years I have enjoyed teaching, particularly cell biology to first or second year students. Students often have a very compartmentalized view of the cell and I try to give them a more integrated view of the cellular universe," reflects Ginsberg. He also has enjoyed being engaged in research.

"My sabbatical will be used to find some research projects that I can contribute to. It might be too much to expect that I could get my lab going again, so I will mostly look at areas such as environmental science or science education that I can contribute to."

Prior to being named associate vice president for research in August 2004, Ginsberg had a rich repertoire of administrative experiences. Beginning in 1991, Ginsberg's administrative posts include chairing the Department of Biological Sciences from 1991 to 1996; associate dean in the College of Arts and Sciences from 1996 to 2003; and interim dean in CAS from 2003 to July 2004, at which point he was appointed as associate VP for Research. While serving as dean in the CAS, Ginsberg played a critical role in advancing the research agenda of the University.

Other roles Ginsberg has played since joining the faculty in 1977 include being co-director in 1980 of the WMU Multiclinic, an interdisciplinary patient analysis service; interim director of the Environmental Research Center from 1996 to 1997; and interim director of the Mallinson Institute for Science Education from 2001 to 2002. Cumulatively, all these posts influenced and shaped his vision for OVPR as did his strong commitment to research, ethics in research, and recruitment and retention of minority students in the sciences. Broader than this, though, is Ginsberg's commitment to celebrate all research: funded or unfunded, science or creative research, faculty or student. "My top priority as I began this job in OVPR was to restructure OVPR so as to provide more service to faculty engaged in research and external funding," says Ginsberg. "This included staff changes, a useable website, workshops, electronic storage of grants, and other measures to increase the visibility of OVPR.



It also included bringing on grant writers and

research officers who could assist faculty searching for funding."

Ginsberg has always relied on his past experiences to guide him: "My experience as associate dean in CAS was that faculty members were having problems with the granting system," recalls Ginsberg. "And if we were to move to the next level as a research university we would need to help the faculty achieve its goals. In addition, grant submission was changing, moving from paper to electronic submission, and this required changes in the way OVPR worked."

Communication and information access have always been important factors to Ginsberg. So, too, is the need to offer support to faculty and students by various tools available to OVPR.

Support for faculty has been a hallmark of Ginsberg's years as an administrator. "The OVPR has multiple roles," says Ginsberg. "It must encourage scholarship both funded and unfunded, it has to foster the ethical conduct of research and it has to help the University obtain and manage external funding. One of the most important roles for OVPR is to help faculty members with their careers. Over the last few years I have had the pleasure to work with a number of early career faculty on their career goals; some in setting up their research program, and others in obtaining their first grants."

In regard to undergraduate grants and their contribution to the University and faculty, Ginsberg says this: "In the same way that helping new faculty get started on their careers has been important to me, I have always been interested in undergraduate research. As a faculty member, I would routinely have 2-3 students working in

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GINSBERG RETURNS TO FACULTY - CONTINUED

my lab. When I moved to the Dean's office we started the CAS undergraduate research awards program that has been very successful over the years. I have also been a co-PI on the NIH Bridges grant that helps minority students with a research experience."

Ginsberg made it a priority to give students information about research opportunities. "In OVPR we created a virtual Undergraduate Research Opportunities Program to catalog the various undergraduate research opportunities on campus and started a new Research Excellence award to support undergraduates who work with externally funded faculty."

Ginsberg has also been an active proponent of minority student recruitment. It is important to the University and to the disciplines.

"The Bridges grant, which WMU has had for about 10 years, has been a great project for the minority students as well as WMU. The program takes students from 5 community colleges in Michigan and brings them in to participate in a summer program of research, seminars, poster presentations, and often on to national meetings. Many of these students then transfer to WMU."

Before the Bridges grant, minority students were not often found in biology and chemistry research labs. Some of these students involved in Bridges chose to continue their work in the labs, often talking their friends into joining. It has long been known that the best way to get a student started in research and science was by one-on-one mentoring in a research environment.

Ginsberg sees WMU's future as bright. "We have many areas of stellar research. Great work is ongoing in the humanities, Medieval Institute, science and math education, evaluation,

RESEARCH AND CREATIVE Activities poster day

Graduate students and faculty will showcase their scholarly work Friday, April 10, in the Fetzer Center as part of the Third Annual WMU Research and Creative Activities Poster Day.

Poster presentations run from 9-11 a.m. in rooms 1035, 1045 and 1055 of Fetzer. At 11 a.m., the 2009 Emerging Scholars give their keynote addresses in Kirsch Auditorium: Dr. Kuanchin Chen, associate professor of business information systems, and Dr. Jennifer Machiorlatti, associate professor of communication.

Lunch is at noon with an awards presentation from 12:45 to 1 p.m. The awards recognize the outstanding graduate student poster presentations and are sponsored by the Office of the Vice President for Research (OVPR) and the Graduate Student Advisory Committee (GSAC).

The event is sponsored by the Research Policies Council of the Faculty Senate and the GSAC, in collaboration with the Graduate Studies Council and the Office of the Vice President for Research. special education, blindness rehabilitation, speech pathology and audiology, and in sciences and engineering, to name a few." Many of these projects are interdisciplinary and involve several colleges.

"Interdisciplinary research is important because the problems of importance have multiple facets," says Ginsberg. "Faculty members often have narrow expertise and limited time; so collaboration provides new insights and offers faculty members and students time to address a problem."

Ginsberg also was instrumental to the growth of intellectual property. It was during his tenure in OVPR that Dr. Micheal Sharer, director of Intellectual Property Management and Commercialization, joined the staff.

"Universities are expected to do more today than teach. They are expected to be a force for economic development," says Ginsberg. Since 2000 IP has become an important part of the work and research at WMU.

"WMU's IP program has had multiple successes over the last few years," adds Ginsberg. "We have seen the start-up of several new companies, sold some IP, and others are still being developed." As a result, "we now compare favorably in IP activitiy with other research universities in Michigan. We have already begun to invest some of the royalties in developing new IP."

The process comes full circle. So, too, has Ginsberg's career as an administrator.

He started out as a successful professor, well-loved by his students. Then he served faithfully at WMU in various roles, all with the goal of helping WMU reach its full potential as a research institution as well as helping its students reach their full potential as scholars.

IMPORTANT NUMBERS AND INFORMATION AVAILABLE ONLINE

Federal grants require University identification numbers. In particular the DUNS number is often required. To locate this and other required information go to the OVPR website and under Grant Writing select "Required Information" (www.wmich.edu/research/information.html).

For our latest projections on future fringe and graduate rates click on Budget Guidelines (www.wmich.edu/research/ budget.html).

WMU's Misconduct Policy is available in PDF format (www.wmich.edu/ethics/docs/ ResearchMisconductPolicy2006.pdf).

VOLUME 5, ISSUE 1

WIND ENERGY ENERGIZES PATTEN'S CAR

Dr. John Patten, department chair of manufacturing engineering at WMU, has a dream: to power automobiles using renewable sources of energy. His dream has become reality as he works on a project funded by the State of Michigan Energy Office through its Community Energy Program Grant.

"In the 1990s I had a dream to build an electric vehicle (EV) charged by solar photovoltaics (PV) — the sun, "says Patten. "Once I moved to Michigan, I caught the wind (energy) bug, and I thought about a plug-in hybrid electric vehicle (PHEV), but there were none available from dealers." Patten's investigation led him to consider using conversions.

"After the wind turbine at the Parkview campus was installed in 2007, the thought came to me to use wind energy to charge an EV or PHEV," he recalls. "So, to make a long story short, I obtained one of the first A123/Hymotion conversions for a Toyota Prius hybrid in December and am now charging the hybrid (PHEV) with wind energy."

Patten's hybrid is a clean-green transportation machine. It is also a research tool for his studies.

Patten has three goals for this project. His first goal has already been met: the Prius has been converted from a hybrid to a plug-in electric vehicle. The second goal is to study the synergy between the energy produced by the wind turbine and the electrical energy needs of the PHEV. The task is to evaluate if the wind turbine produces enough energy to charge and power the PHEV.

The bottom line is that after two months of evaluating the wind turbine output (at Parkview) and the PHEV input (charging) at campus, Patten has produced enough energy electricity available from the turbine, on average, to completely charge the PHEV while on campus. There is



even excess electricity from the turbine, over and above PHEV usage, that is fed into the Parkview grid and used by the Parkview campus.

The final goal is to offer demonstrations, workshops, and seminars to discuss the project and the results, thus beginning the educational and outreach phase of this project.

As for impact, Patten says wind turbines typically produce more energy at night when utility companies generally do not need the excess energy. So, instead, imagine a world where consumers plug in their PHEV to make use of this green energy and save money while doing so. This comprehensive, applied research is going on right here at WMU.

"Obviously I am passionate and excited about the contributions wind energy and PHEV can make to our energy and economic situation," comments Patten. "This analysis is ongoing but has the potential to be a huge impact on the emerging wind and PHEV markets."

INTELLECTUAL PROPERTY UPDATES: 2009 TD FUND AWARD WINNERS

The WMU IP Management and Commercialization Faculty Advisory Committee (IPMCC), after reviewing proposal submissions, awarded three separate faculty projects.

The Technology Development Fund is an internal grant program to provide funding to further develop faculty inventions.

Winners of the 2009 TDF Awards were the following faculty and projects:

 Dr. Richard Spates, "Testing the efficacy of a computer-based treatment for depression and PTSD," \$19,000.

- Dr. Adam Milewski, "Hydroinformatics: Bridging the gap between hydrology and technology," \$14,500.
- Dr. Ala-al Fuquha, "Call Home analysis and response system," \$11,000.

See the www.wmich.edu/research/technologytransfer for information on the Technology Development Fund or contact Dr. Michael Sharer directly at 387-8218.

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FINAL SPRING WORKSHOP AVAILABLE

OVPR offers workshops on various topics that relate to funding searches, grant administration, proposal writing and development, and research compliance. A final workshop is being offered in addition to the Third Annual WMU Research and Creative Activities Poster Day on April 10. See below:

April 10, 8:30-1 p.m. —Third Annual WMU Research and Creative Activities Poster Day in Fetzer Center. Detailed schedule of events on page 2 (see article).

April 17, 11:30-1 p.m. — Grant Writing III – Finalizing your Proposal for Submission, Quality Circle Review, Bucksheets, Working with Your Research Officer. Dr. Mary Anne Sydlik, research officer, to present in the Commons, Walwood.

RDA AND SFSA AWARDS ANNOUNCED FOR 2009-2010

Nine faculty have been named as recipients of the 2009-2010 Research Development Awards.

They are: Drs. Ramakrishna Guda, Department of Chemistry; Peter Gustafson, Mechanical and Aeronautical Engineering Department; Lucius Hallert, Department of Geography; Brian Horvitz, Educational, Leadership, Research and Technology Department; Gellert Mezei, Department of Chemistry; Christine Moser, Department of Economics; Jennifer O'Donoghue, Department of Health, Physical Education and Recreation; Xiaoyun Shao, Civil and Construction Engineering Department; and Andre Venter, Department of Chemistry.

Each DRA recipient is awarded \$2500 for an 18 -month period to complete program activities that include attending workshops on grant seeking and foundation grants; meeting with mentor and research officer to define a research plan; participating in quality circle reviews of proposals; traveling to Washington D.C. to meet with a sponsoring agency and submitting at least one proposal for federal support before December 2010.

The OVPR research officers and mentors are available to assist with research development and proposal submissions.

Interested faculty and staff are encouraged to visit the OVPR website and to register online. Check the calendar for details and last minute changes and additions.

For information about the April 17 workshop, check the OVPR calendar available on the website.

To submit ideas for future workshops, contact Mary Anne Sydlik by e-mail: mary.sydlik@wmich.edu.

SUPPORT FOR FACULTY SCHOLARS AWARDS-2008-2009

Twelve faculty were awarded SFSAs in September. The awards ranged from \$1400-\$2000. Recipients were: Drs. **Kapseong Ro**, Mechanical and Aeronautical Engineering Department; **Megan Slater**, Department of Dance; **Cat Crotchett**, Department of Art; **Shaila Roa**, Special Education and Literacy Program; **Zvi Biener**, Department of Philosophy; **Lucius Hallett**, Department of Geography; **Valery Bliznyuk**, PCI; **David Curwen**, Department of Dance; **Mehendra Lawoti**, Department of Political Science; **Susan Steuer**, Libraries; **Mary-Louise Totton**, School of Art; and **Caroline Gore**, School of Art.

Recipients of the SFSA in January include twelve faculty members. They are: Drs. Katherine Joslin, Department of English; Jacqueline Eng, Department of Anthropology; Kelly Ackerson, School of Nursing; David Code, School of Music; Michael Nassaney, Department of Anthropology; Britt Hartenberger, Department of Anthropology; Vince Torano, School of Art; Mustafa Mirzeler, Department of English; Muralidhar Ghantasala, Department of Mechanical and Aeronautical Engineering; Mary Lagerwey, School of Nursing; and Anthony Ellis, Department of English.

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OVPR Research Officer Constituent Areas

Wil Emmert:: Evaluation Center, CAS (Dean's Office, Math, Statistics, Geosciences, Geography, Physics, Mallinson Institute for Science Education, Environmental Studies, Aviation.

Gina Betcher: CAS (Humanities), CFA, COE, TGC, International Studies, HIGE.

Mary Anne Sydlik: CAS (Biology, Chemistry, Psychology, Sociology), LHC, CHHS.

Barb Wygant: CAS (Political Science, Public Administration), CAES, HCOB, Nano Research

A complete list of constituency areas will be posted in September. Check our website: (www.wmich.edu/research).