BGSU research part of new innovation center

Photochemists at BGSU want to shed light on the future—and at a low cost.

The work of Drs. Felix Castellano and Pavel Anzenbacher, aimed at developing next-generation photovoltaic materials much cheaper than today's technology, will be part of a newly established Photovoltaics Innovation and Commercialization Center, based at the University of Toledo.

The UT-led consortium has received $18.6 million in Wright Centers of Innovation funding from the state to create the center, part of Ohio's Third Frontier Project. Photovoltaics deals with converting sunlight to electricity, and research at the center will focus on advanced materials for use in constructing and developing solar cell arrays. Prototyping and demonstrating various photovoltaic system components, developing and installing a complete system, and graduate-level education and consumer awareness are also planned.

"It's quite a massive project," said Castellano, calling the center "a very broadly defined research program." It encompasses every facet of modern photovoltaic technology, the lead BGSU researcher said, and comprises 19 partners—also including Ohio State University—from higher education and the private sector.

The BGSU photochemists became involved through their association with UT physics professors Alvin Compaan and Robert Collins. Collins is director of the project, in which Castellano and Anzenbacher will continue their study of "third-generation" photovoltaic materials.

The two scientists "have established themselves as leaders in the field of molecular photonics," according to Dr. Heinz Bulmahn, vice provost for research. "BGSU's work in the photosciences has been recognized as a great strength for this institution and will contribute significantly to regional efforts to bring photovoltaics and photoscience-related research to an even higher level of prominence both nationally and internationally," he predicted.

While they may eventually lead to commercial products—a goal of the center and other Third Frontier programs—third-generation materials are still in the research and development phase, "holding promise but not proven," Castellano noted.

Crystalline silicon, he continued, is considered first generation, perhaps decades ahead of third-generation descendants such as the dye-sensitized solar cells that will be investigated further during the three-year project.

But he is optimistic about the future of those solar cells because of their efficiency and, especially, low expense.

Nanoparticles in paint are often titanium dioxide, which is readily available, cheap and a semiconductor that can be made into thin films with low processing costs, Castellano explained. "It's like dirt; you can do anything with it," he said about the compound.

Attaching a dye sensitizer allows an onlooker to see the dye color in the films, he added, pointing out the potential use in architecture, for instance, of multicolored, photovoltaic (solar) panels on plastic.

In addition, Castellano said, these materials—unlike silicon—work well in diffuse light, generating usable electricity earlier in the morning and later in the evening. The fact that it does not need direct illumination by the sun is one reason for this kind of panel's use, but more importantly, he said, it's inexpensive to produce.

Other possible uses of the technology are "where the military comes in," he said. Interest has
been expressed, for example, in solar-powered tents that could be camouflaged with different combinations of dyes. Also, due to the films’ flexibility and light weight, they could be used to recharge batteries in the field and, because they’re cheap, it wouldn’t be a problem if a unit on the move had to leave them behind, according to Castellano.

Whatever the specific applications, the state is interested, through the center, in developing a comprehensive photovoltaics strategy and creating high-tech jobs that make Ohio a more desirable place to work, he said. "The expertise is in this region," he added, and the center’s partners will be sharing theirs with each other during the project.

**BGSU among 18 U.S. institutions chosen to further programs in ethics, integrity**

BGSU is among 18 institutions chosen by the Association of American Colleges and Universities (AAC&U) to participate in the Core Commitments Leadership Consortium, the organization announced Jan. 18.

These schools will lead the first phase of a national initiative, Core Commitments: Educating Students for Personal and Social Responsibility. The initiative seeks to embed personal and social responsibility objectives pervasively across the institution as key educational outcomes for students, and to measure the impact of campus efforts to foster such learning.

The other 17 institutions chosen to participate in Core Commitments include Miami University and: Babson College, Mass.; California State University-Northridge; Concordia College, Minn.; Michigan State University; Middlesex Community College, Mass.; Oakland Community College, Mich.; Rollins College, Fla.; Saint Mary's College of California; St. Lawrence University, N.Y.; Tuane University, La.; U.S. Air Force Academy, Colo.; University of Alabama-Birmingham; University of Central Florida; University of the Pacific, Calif.; Wagner College, N.Y., and Winthrop University, S.C.

The 18 participating institutions were selected both on the basis of work already accomplished in the spirit of Core Commitments and on an articulated plan to deepen and extend that work on campus. They are each working to implement in their own ways one of the key recommendations articulated in AAC&U’s recent report from its initiative, Liberal Education and America’s Promise. The report, College Learning for the New Global Century, recommends in part that every college or university “foster civic, intercultural and ethical learning” and “emphasize personal and social responsibility” for all students and in every field of study.

BGSU’s BGExperience, a first-year values-exploration program, was cited in the report as one of the programs nationwide that is implementing a new set of principles of excellence in education.

"Being selected to participate in the AAC&U’s Core Commitments initiative reflects well on the many BGSU faculty members who have been willing to undertake the challenging task of teaching critical thinking about values across the curriculum," commented Dr. Donald Nie- man, dean of the College of Arts & Sciences. "Not only is recognition from such an influential organization as AAC&U very gratifying, but the grant will help us build on past successes and extend our focus on values and civic responsibility beyond the first year."

The 18 consortium members will receive a $25,000 award and commit $25,000 in institutional matching funds over two years to significantly advance new models that provide students with purposeful and progressively challenging educational experiences. They will also administer a new Personal and Social Responsibility Institutional Inventory to students, faculty, student affairs administrators and academic administrators. The results will be used to inform ongoing efforts. Future events planned for the initiative include institutes and workshops, campus dialogues and symposia.

In addition to BGExperience, BGSU offers other programs that were included in the report’s
recommendations for higher-education practices, such as service- and community-based learning, learning communities and undergraduate research.

"The faculty, staff and administration at BGSU have worked together for several years to build the BGeXperience program, as well as other innovative approaches to undergraduate education," added Dr. Mark Gromko, interim provost. "Often, people so close to a big effort such as this do not fully appreciate the size or significance of their accomplishments. Here, AAC&U has taken a look from a national perspective. From that vantage point, our accomplishments are clear and our progress stands out among institutions of higher education in the United States."

"The selected colleges and universities are already promising leaders in encouraging and incorporating personal and social responsibility into the undergraduate curriculum," said AAC&U President Carol Geary Schneider. "Too often there is a disconnect between student life on campus and students' academic studies, isolating values, ethics and civic responsibilities from what is learned in the classroom. Core Commitments and the Leadership Consortium will strive to create an encompassing vision of how to integrate these vital principles into the core of the undergraduate experience for all students."

Project Director Caryn McTighe Musil, senior vice president at AAC&U, explains that to focus the work that will happen on campuses, AAC&U has identified five key dimensions of personal and social responsibility that form the core of the initiative:

• Striving for excellence: developing a strong work ethic and consciously doing one's very best in all aspects of college;
• Cultivating personal and academic integrity: recognizing and acting on a sense of honor ranging from honesty in relationships to principled engagement with a formal academic honors code;
• Contributing to a larger community: recognizing and acting on one's responsibility to the educational community (classroom, campus life), the local community and the wider society, both national and global;
• Taking seriously the perspectives of others: recognizing and acting on the obligation to inform one's own judgment; engaging diverse and competing perspectives as a resource for learning, for citizenship, and for work;
• Developing competence in ethical and moral reasoning: developing ethical and moral reasoning in ways that incorporate the other four responsibilities; using such reasoning in learning and in life.

Core Commitments: Educating Students for Personal and Social Responsibility is supported by a grant from the John Templeton Foundation.

BGSU to direct Regents Environmental Academy for high school students

The University is getting REAL about environmental health with high school juniors and seniors.

The acronym stands for the Regents Environmental Academy for Learning, a program scheduled to begin this summer with $340,000 in funding from the Ohio Board of Regents.

Owens Community College is a partner in the academy, one of 10 for which the regents approved $3.5 million at their Jan. 18 meeting. The academies are aimed at encouraging high school juniors and seniors to study the STEM disciplines (science, technology, engineering and mathematics) and foreign languages in college, particularly in hopes that the students will consider secondary teaching in those fields as a career.

Students who may not currently plan to study a STEM discipline or foreign language, or even to attend college, are targeted by the program. The academies will give about 500 Ohio
BGSU's academy will focus on problem-based learning approaches in environmental health science—a teaching model developed through the University's Project EXCITE (Environmental health science explorations through Cross-disciplinary and Investigative Team Experiences). The National Institute of Environmental Health Sciences has funded EXCITE, primarily for students in the middle grades, with about $1.8 million over seven years.

"We're modifying for a higher grade level some of the curricula we developed for Project EXCITE," said Dr. Charles "Chris" Keil, environmental health and the academy director.

The target number for the three-week residential program—tentatively scheduled for June—is 55 students, who will be divided into four groups for instruction. In addition to earning college credit while their room and board is paid, participants will receive a $600 stipend. "We're hoping that will get kids interested," he said, pointing out that applicants will be sought from throughout Ohio.

Students will earn credit in environmental health through BGSU and in chemistry, through Owens, while exploring environmental health issues such as "factory" farming. That will probably be the primary topic explored during the academy, although the students may "get their feet wet" with investigations of other issues, including mosquito control and the West Nile virus, and food health and safety, Keil noted.

Additional credits will be available during the school year through distance learning. While on campus, he explained, the students will start a basic chemistry course, which they will have the rest of the summer and early fall to complete online. Those who meet requirements may then take Environmental Health 210, which addresses international environmental health issues, as a distance course in spring 2008. That course meets BGSU's international perspectives requirement, and the University has agreed to waive instructional costs for taking it, he added.

Local teachers will collaborate with BGSU and Owens faculty to craft the academy curriculum, building on the materials and teaching approaches developed and field-tested by EXCITE. "We're hoping we'll get the best of the best to help us out," said Keil, referring also to high school teachers who will join BGSU and Owens faculty and Bowling Green undergraduate students to form the three-member teaching teams that will instruct the four groups of students.

The goal for the juniors and seniors, he said, "is to get them in here and give them a really positive experience" with both science and the University.

Selected by an advisory committee to the regents, the state's 10 summer academies have been created in response to House Bill 115 of the 126th Ohio General Assembly, which recently appropriated $13.2 million to support the implementation of the Ohio Core curriculum. The enhanced curriculum standards, signed into law by former Gov. Bob Taft, are designed to better prepare high school students for college and the world of work.

"The academies are intended to meet both immediate needs for producing more highly qualified teachers in STEM and foreign language disciplines, as well as longer-term needs for building an infrastructure to increase the capacity of teachers and ensuring the success of students in transitioning to college and work," according to the regents.

National family relations council names Chibucos a Fellow

Dr. Thomas Chibucos, family and consumer sciences, has been named an NCFR Fellow by the National Council on Family Relations.

The NCFR Fellows were nominated by their peers and selected for their history of outstanding...
ing contributions to the field of family studies in such areas as published scholarship; innovative and influential teaching presentations; development and implementation of significant intervention programs designed to promote healthy family relations, and of innovative curricula for training professionals in family studies; social policy support for family issues, and a consistent record of superior contributions to the NCFR over time.

Chibucos, who specializes in human development and family studies, is also a research affiliate with the National Poverty Center at the Gerald R. Ford School of Public Policy at the University of Michigan. He has published numerous papers regarding family-related policy in such areas as the effectiveness of sexuality education; the role of the NCFR in family policy initiatives; welfare reform; poverty and families with young children; public policy and community collaborations; community action commission-university partnerships; changing roles in policy, research and design, and family poverty and child maltreatment.

His scholarship integrates developmental, family systems and contextual thinking in his co-authored book, Serving Children and Families through Community-University Partnerships, and in his 2005 book, Readings in Family Theory. As one nominator stated, "Tom Chibucos has an 'insider's view' of the research, pedagogical, and outreach components of scholarship that need to be integrated in the service of using scholarship to both advance science and, in doing so, to serve communities of youth and families."

Chibucos has a long record of involvement and leadership in the NCFR. He served as chair of its Public Policy Committee from 1999-2003, when he was instrumental in developing the NCFR'S Public Policy Conference. He has provided leadership in developing policy education initiatives at annual conferences, as well as strong impetus for the development of a series of policy briefs. He is currently chair-elect of the Public Policy Section.

**Tech Trends discussion to address copyright issues on the Web**

Music downloading on the Internet has become a copyright issue in numerous lawsuits, and now so have online videos. Dr. E. Michael Harrington, a professor of music business at Belmont University in Nashville and an authority on intellectual property law, will be at BGSU Friday (Jan. 26) to discuss these issues. His talk will begin at 2:30 p.m. in 206 Bowen-Thompson Student Union.


Harrington has been an expert witness in hundreds of music copyright violation cases, involving artists such as the Dixie Chicks, Madonna, Avril Lavigne and Tupac Shakur. He has also been featured in stories in the New York Times and USA Today, and on CNN, “The Today Show” and National Public Radio.

He will discuss copyright issues, analyzing new lawsuits against YouTube and Google. He will also present his own work as a defense expert witness in lawsuits involving parody videos on the Internet, such as the Jib Jab parody, "This Land Is Your Land,” and D.J. Danger Mouse’s mash-up of the Beatles’ “White Album” and Jay-Z’s “Black Album” into the “Grey Album.”

He will also discuss his work in assisting the plaintiffs in a coalition of public interest groups in American Library Association et al. v. FCC, a lawsuit that stopped the Federal Communications Commission from mandating a policy that would have given copyright owners and the federal government veto power over the development of new technologies for computers and television tuners.

Harrington will conclude his presentation with an analysis of the effects of the new Congress on technology, artistic expression, education and law, and an analysis of the likely role of the FCC in new Internet and technology issues.
Jackson tickets gone; see speech on closed-circuit TV


However, the speech can be seen via closed-circuit broadcast in the Union Theater, Multi-purpose Room (Room 228) and the Falcon's Nest Food Court. Admission to those areas will be on a first-come, first-served basis.

The 1,000 free tickets required for seating in the ballroom were claimed by 2 p.m. Jan. 16—the first day they were available.

The Rev. Jackson, a former assistant to Dr. Martin Luther King, will discuss the late civil rights leader in his address, "Honoring His Dream ... Making It Our Reality." The program will begin at 7 p.m. Thursday.

Volunteer for Presidents' Day

Volunteers are still needed to help host the Presidents' Day open house Feb. 19.

Information and a sign-up link are available at http://go2.bgsu.edu/office/volunteer/.

The sign-up link is on the upper left-hand side of the volunteer home page.

Learn more about PeopleSoft FMS on Web site

Preparations continue for the Feb. 5 go-live of BG@100 PeopleSoft Financial Management Solutions (FMS) as the University's financial system.

Information is being disseminated at training sessions and may also be found through links on the BG@100 project Web site: www.bgsu.edu/BGat100.

The available FMS information includes:

Agency/Org-DCC Cross Reference - www.bgsu.edu/offices/cio/page26007.html A reference to the Department Cost Centers (DCC) numbers to be used by each budget in FMS in place of the current agency/org number.

Important Dates before the Go-Live - www.bgsu.edu/offices/cio/page26055.html - The weeks prior to FMS go-live will be filled with preparation for conversion. This Web page provides a reference to significant dates during which systems may undergo changes or outages in order to complete necessary preparations.

Quick Reference - www.bgsu.edu/offices/cio/page25805.html For those who have completed FMS training, the page provides a reminder of the steps required to complete processes such as Creating a Blanket Requisition, Creating a Multi-line Requisition, etc.

Role Assignment - www.bgsu.edu/offices/cio/page25507.html Links to an Excel and pdf listing of the Requester, Budget Administrator, Senior Administrator and vice president for each budget.

Questions or requests for further details regarding BG@100 FMS may be directed to: BGat100@bgsu.edu.
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CALENDAR

Monday, Jan. 22
Memorial Service for Adam Stephenson, a third-year mechanical engineering student who died Dec. 14, 8 p.m., Prout Chapel.

Tuesday, Jan. 23
Movie, "The Departed," 9:30 p.m., Bowen-Thompson Student Union Theater.

Wednesday, Jan. 24
Brown Bag Luncheon, "Myths and Realities of Nutrition in Pregnancy and Breastfeeding," by dietician and certified lactation consultant Nancy Howe, noon-1 p.m., Women's Center, 107 Hanna Hall.
Men's Basketball vs. Western Michigan, 7 p.m., Anderson Arena.
Faculty Artist Series, "Viola and Friends," with violist Csaba Erdelyi and other BGSU music faculty, 8 p.m., Bryan Recital Hall, Moore Musical Arts Center.

Thursday, Jan. 25
Black History Month Event, "Honoring His Dream ... Making It Our Reality," by Rev. Jesse Jackson, 7 p.m., Lenhart Grand Ballroom, Union. No tickets remain for seating in the ballroom, but closed-circuit viewing is available in the Union Theater, Multi-purpose Room (228) and the Falcon's Nest on a first-come, first-served basis.
Creative Writing Program MFA Readings, by Kristina Fairfield, poetry, and Melissa Engberg, fiction, 7:30 p.m., Prout Chapel.
International Film Series, "La Pianiste (The Piano Teacher)" (2001), directed by Michael Haneke, France, 7:30 p.m., Gish Film Theater, Hanna Hall.
Guest Artist Concert, by clarinetist Kristina Belisle, University of Akron, 8 p.m., Bryan Recital Hall, Moore Musical Arts Center.

Friday, Jan. 26
Women's Professional Development Series, "Balance, Juggle, and Control: Finding Your Nanosecond of Zen," by Dr. Ellen Nagy, director of First-Year Experience, Heidelberg College, and Annette Badik and Michelle Simmons, BGSU Career Center, 1:30-3 p.m., Women's Center, 107 Hanna Hall.
Movie, "The Departed," 9:30 p.m., Union Theater.

Sunday, Jan. 28
Movie, "The Departed," 9:30 p.m., Union Theater.

Continuing Events
Jan. 26-27
Hockey vs. Alaska, 7:05 p.m., Ice Arena.

Through Jan. 31
Art Exhibition, "Vision of Memories: The Chronicles of a Lifetime of Travel," paintings by the late Dr. Fujiya Kawashima, Asian studies and history, Union Gallery. Hours are 8 a.m.-9 p.m. Monday-Saturday and 10 a.m.-9 p.m. Sundays.

Through Feb. 14
Art Exhibition, Student Enameling Exhibition, Little Gallery, BGSU Firelands. Gallery hours are 9 a.m.-5 p.m. weekdays.

Through March 2
Planetarium Show, "Nine Planets and Counting," 8 p.m. Tuesdays and Fridays and 7:30 p.m. Sundays, BGSU Planetarium, 112 Physical Sciences Lab Building. $1 donation suggested. Stargazing follows planetarium show on Fridays and Sundays if weather permits.

JOB POSTINGS

FACULTY
There were no jobs posted this week.

Labor Postings
http://international.bgsu.edu/index.php?x=facinfohires
CLASSIFIED

On-campus classified:
www.bgsu.edu/offices/ohr/employment/BGSU_only/page11151.html

Off-campus classified:
www.bgsu.edu/offices/ohr/employment/cl_staff/page11145.html

ADMINISTRATIVE

www.bgsu.edu/offices/ohr/employment/adm_staff/page11137.html

OBITUARY

June Coughlin, 75, died Jan. 10 in Sandusky. She worked in the BGSU Firelands library from 1978-90, retiring as head librarian.

Mildred Abke, 92, died Jan. 14 in Pemberville. She was retired from dining services at BGSU, where she had been a clerk and a cook.