Pitt asks for 14.7% appropriation hike

The University is aiming high in its annual request for state funding for the upcoming fiscal year. For its first budget request under Chancellor Patrick Gallagher, Pitt is seeking a 14.7 percent increase to its base appropriation in fiscal year 2016, asking for $156.29 million for general support and research endeavors.

Pitt also is asking for nearly $11.66 million for the School of Medicine, including support for the School of Dental Medicine and dental clinics. Western Psychiatric Institute and Clinic and the Centers for Public Health Practice, an increase of 5 percent. The medical school funding is part of the academic medical center line item in the Department of Public Welfare budget.

Combined, the request of $167.95 million represents a 13.9 percent increase in state support for the fiscal year that begins July 1.

In a statement that preceded the University's request, Gallagher said: "The dual roles of providing educational opportunities for individual Pennsylvanians while functioning as a critical economic engine for both western Pennsylvania and the entire Commonwealth are at the heart of our request for an increased level of state funding."

At that level of funding the University would raise the commencement pool 2.5 percent and keep tuition increases "as small as possible," said Paul A. Supovitz, vice chancellor for Community and Governmental Relations.

The request projects a 1.2 percent increase in revenue from tuition and fees in FY16, but does not factor in the proposed tuition increase.

Gallagher, in his statement accompanying the request, emphasized the quality and value of a Pitt education, the University's efforts to control costs, its contributions to the region's economy and the impact of tuition increases on students.

He noted that the state appropriations enable Pitt to discount tuition for in-state students, who currently pay about $10,600 less per year than out-of-state students. "However, under current state funding levels, only half of that amount is supported by funds from the commonwealth, with the remainder provided by the University," he stated.

"In today's knowledge-based economy, the value of higher education has never been greater. Simply put, the Commonwealth benefits from having an educated populace, a globally-competitive workforce, a vibrant research community and support for increasing Pennsylvania's economic competitiveness in today's global economy," Gallagher said.

The University's request reflects that its current levels of state support are equal to its 1995 appropriations, unadjusted for inflation. "Dealing with a 2014 cost structure when state support has been taken back to 1995 levels, then, is one very significant challenge," it stated, citing increases of almost 55 percent in the Consumer Price Index and 75 percent in the Higher Education Price Index during that time, along with enrollment growth of nearly 3,000 students and annual research expenditures up more than $500 million since 1995.

The approach to the year's budget request differs from past requests in that it specifies the continued increases in support through the next fiscal year.

"We are seeking a 14.7 percent increase in state support to continue the Commonwealth's commitment to Pitt as the University's leadership works to continue our tradition of excellence and innovation," Gallagher said.

At the University, the budget request is led by the Office of the Provost, which oversees the budgeting process.
### Building a strong beginning for your class

One element of a class frequently overlooked by faculty is the introduction to the day’s lesson. Typically, introductions have three functions: help students recall what they already know; connect students to the objectives of the day’s lesson; and demonstrate the relevancy of new material.

However, if students help students recall what they know in varied ways. For example, when some students walk into a math or science class, they immediately can use skills from a previous class by working on a problem that is projected onto a screen. Comparing their answers with a neighbor’s prepares them for a class discussion about the problem.

A quiz based on the readings or the previous class also can be used to prepare students for a discussion. Alternatively, consider distributing a survey prior to class via CourseWeb and posting the results at the start of class. This strategy can help students identify assumptions and attitudes that the upcoming class will address.

### FY14 revenues up 1% to $2.01 billion

The Board of Trustees audit committee in a Sept. 29 report noted that noted that the University’s audited financial statements for fiscal year 2014, a draft prepared by Arthur G. Ramocone, an independent financial, is a solid one for the University.

**Operating revenues**

The University’s operating revenues totalled $8.40 billion, up from $8.33 billion at the end of FY13. Grants and contracts, the University’s largest revenue source, fell to $979.58 million, down $61.81 million, or 6.1% from $1.04 billion in FY13. About 61 percent of the fiscal year’s sponsored revenue is derived from the National Institutes of Health (NIH).

Included in the FY14 grant total was $4.05 million awarded through the American Recovery and Reinvestment Act of 2009, the final remnants of ARRA economic stimulus funding, which will fall to “virtually zero” in FY15, Ramocone told the University Times. Pitt’s sponsored research in 2013 was $309.20 million in ARRA funds in FY13.

Grants and contracts not associated with ARRA funding totaled $955.53 million, down $48.90 million from FY13.

Much of the decrease was expected, due to the federal sequestration, which in 2013 cut 5 percent from NIH’s budgets, and the decline in ARRA funding, Ramocone said.

Net tuition and fees, Pitt’s second largest revenue stream, rose 2.88 percent to $541.44 million, up from $527.57 million in FY13. The university’s projections from the state rose to $478.8 million, up $3.9 million or 0.2 percent from $474.9 million in FY13. The university’s projections from the state rose to $478.8 million, up $3.9 million or 0.2 percent from $474.9 million in FY13.

The state’s funding for Pitt projects was $40.4 million, down from $44 million in FY13.

**Operating expenses**

Pitt’s operating expenses held steady at $1.88 billion in FY14.

The University paid back its largest operating expense commitment for the tenth consecutive year. The reduction, Ramocone said, was predicated on a decision to reduce in headcount.

About 60 cents of every dollar of research funding is dedicated to research compensation, Ramocone said, explaining the loss of research funding is what was required in a reduced headcount.

Total compensation (salaries and wages and fringe benefits) in FY14 was $3.37 billion, down 0.7 percent (—$24.22 million) from $3.39 billion in FY13.

Ramocone said the loss of fringe benefits was the result of both a slowdown in headcount and a reduction in medical claims.

**Endowment growth**

The University’s endowment, composed of $1.15 billion, gained 30.92 million, or $30.92 million, or 3.3 percent from $1.03 billion for the fiscal year 2013.

The endowment’s total return was nearly $44.7 million, made up of $34.69 million in endowment gains and $9.93 million in endowment gains.

Endowment distributions per student rose by $93.97 to $1,221.97 in FY14.

In other business, the audit committee approved KPMG LLP as Pitt’s independent auditor and tax advisor for fiscal year 2015.

The firm has held the position since 2010.

— Kimberly B. Barlow

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SCIENCE 2014

GUT FEELINGS (and other responses from our microbiomes)

The same Western diet that has helped increase our lifespan to more than 80 years also has introduced several diseases into our microbiome, the organisms that populate not just our gut but other organ systems as well.

That was the message at an Oct. 2 session of Science 2014, Pitt's annual science and technology celebration.

"We've almost taken for granted that gut microorganisms have nothing to do with us other than to keep us healthy," said Jeffrey S. Gordon, the George Goerz Chair in Nutrition, who received the 2014 Lasker Award for basic medical research. "But there's a revolution happening that's as profound as the one that happened with our understanding of genetics."

Gordon and his colleagues have shown that gut microbes play a central role in human health, influencing everything from our immune responses to our energy balance.

In this session, Gordon shared the latest findings from his lab, which have implications for everything from the treatment of obesity and diabetes to the prevention of allergic diseases.

"We're just beginning to understand the complexity of the gut microbiome," he said. "But it's clear that these tiny organisms have a major impact on our health."
There's no reason to suffer at your workstation, says Rich-ard Schultz, safety and program manager in Pitt's Department of Environmental Health and Safety.

One of the most important steps you can take is to pay attention to the ergonomics of how your work station is set up, and how you move while sitting or standing there. The ergonomics—such as the height of your desk and chair—can help relieve or prevent pain or injuries related to your daily tasks.

Schultz, who spoke to about 60 people in the William Pitt Union for the latest Staff Association Council seminar, next tells you how to adjust your computer components and chair, as well as your posture.

The ideal work station will allow you to sit with your spine erect and head and neck aligned, your back against the chair's backrest, your arms at a 90-110 degree angle to the rest of your body, ideally on the armrests, and your knees to be at hip level or slightly above on or below. If you feel your feet should be flat on the floor or on a footrest, your thighs parallel to the floor.

If your chair is not at the right height and is too high or too low, you can adjust it with the chair's lever. It should be close to your right height and is too high or too low, you can adjust it with the chair's lever.

Ideally the seat should be padded, coverless or have a wrist rest, and the backrest should be adjustable for the back. The keyboard should be adjustable for height and orientation and the mouse should be adjustable for height and orientation.

To adjust your monitor properly, the top of the screen should be at eye level, with the screen at arm's length. Ideally, your screen is at a 90-degree angle to any windows, you may want to tilt it to reduce certain glare.

People find creative solutions to such issues, Schultz expects. He showed photos of the University Library System's Thomas Boedeker facility, which has so much sunlight coming into the office through large unoccluded windows that staffs build a counter to construct the best looking sun screens for their computer monitors.

The results were colorful shades that sometimes resembled the tops of beach chairs. "It looks like a Juneau Buffet concert," he joked.

Any person with bifocals tends to tilt his head back to see the screen with the right part of the lens. Instead, Schultz recom-

The first step of ergonomic analysis is to adjust your computer components and chair, as well as your posture.
In response to the doubling of funding for the National Institutes of Health (NIH) between 1998 and 2003—a move aimed at growing the nation's biomedical research enterprise— institutions built new facilities, created new departments, hired new faculty and began training more researchers.

More recently, the picture has not been so bright.
The number of researchers applying for NIH funding has been on the rise, but NIH budgets have remained flat (with the exception of economic stimulus funding from the American Recovery and Reinvestment Act of 2009) and inflation has cut into the buying power of grant funding, Berg noted.

"You have a pie of a fixed size that has been shrinking in constant dollar terms and the number of applicants growing, so there's been a steady decrease in the success rate," which Berg said has dropped to below 15 percent for researchers seeking NIH funding.

In addition, "One of the ways NIH has managed to keep its success rates high is by keeping growth in grant sizes relatively small—way below inflation—so the actual buying power of a grant has been going down," he said.

And, while the number of applicants has risen, there's been an extra growth in the number of applications, because each investigator, on average, is submitting more. "One strategy that many investigators try to use is to have multiple grants, not in style, to keep them going," Berg said.

Those additional applications are putting strain on the NIH review system, he said.

NIH funding also has affected PhD production. "Because research activity and training are so tightly coupled, one of the responses to the doubling was a huge growth in the number of PhDs being awarded," Berg said.

"Programs felt comfortable that they'd have research support for students in later years, and then all the students started graduating at the end of the doubling and that's continued through 2009," Berg said. "Now all these students are coming out into a world that is very different from the world imagined back then, in terms of the number of jobs that are available," driving discussion on possible ways to decouple research activity from training to allow research to continue without producing an overabundance of PhDs.

Berg noted that during the 1970s and 80s, more than half of the students in biologic science fields were in tenure-track academic positions or five or six years earning their PhDs. Those numbers began falling, due in part to attractive career alternatives, settling in the 1990s to about 20 percent in tenure-track positions.

Over the last decade or so, I think the notion of a solution to the tough academic job market is, well, we can expand in all these other sectors," Berg said.

That expansion already took place, he said, noting that the number of those science PhDs categorized as out of the labor force and part-time now is above 10 percent. "That can be worse taking off to have kids, or it can be people who are unsuccessful at finding a job," he noted.

The issues are described in several resources Berg recommended:


While "none of these are particularly cheerful," they provide perspectives on the experiential model of research science, he said.

In addition, a paper published in the March 13, 2014, Proceedings of the National Academy of Sciences, Recycling U.S. Biomedical Research From Its Systemic Flaws, by former National Academy of Sciences President Bruce Alberts, cell biologist Marc W. Kirschner, Princeton President Emeritus Shirley Tilghman and Nobel laureate and National Cancer Institute director Harold Varmus, has generated significant discussion, Berg said.

They identify four major areas of concern: the damaging effects of hypercompetition; crippling demands on scientists' time due in part to regulatory burden; supporting the next generation of scientists, and "perverse incentives" in research funding.

"They note that the indirect cost systems structure, which allows the debt service for new construction to be included in indirect costs in recovery calculations, may have encouraged a lot of institutions to build more space than might actually have been advisable," Berg said. And, grant reimbursement for faculty salaries has emphasized invocations to increase faculty numbers by building "outmoney" positions.

While the current system certainly is unsustainable, Berg said, "We don't want to tear the system, but instead tweak it to reduce and eliminate problems."

Beeson said he found their suggestion to fund graduate students only on training grants, rather than as part of research grants, "an interesting approach that would result in more federal control over the number of PhDs produced."

An alternative would be for graduate students to pay for their education, rather than be supported.

One faculty member in the audience noted that such a program would eliminate the "free ride" and give graduate students incentives to move more quickly through PhD programs and to go to fields where there are job opportunities.

"Are you going to retire at 60 or 65, and leave money for your son or daughter to fund graduate students if you don't do something?" the audience member asked.

"The students will say, 'Well, I'm going to take my PhD and then go work for Respecia or ANSYS and make $70,000 a year,'" Berg said.

Around the university challenges, Berg noted, it would that be "naïve" for any institution to take the lead in adopting a change from the status quo on its own.

"I think that you have to be in a major campus to have a real impact," Berg said.

Beeson added that the positive aspect of a policy shift to fund graduate research students on training grants is that it would be a universal solution.

The job market is another area of concern, Beeson said.

"I don't think the issue is that we're running out of people in graduate education," the provost said. "I think that's part of what we as academic institutions are doing.

We train the next generation of researchers and scholars and not just for our own institutions, but for the thousands and thousands of institutions that don't have graduate programs."

"I think that the issue is training for graduate students to pay for their education, rather than be supported."

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But the microbe is susceptible to negative environmental influences, too. When it comes to Creutzfeldt-Jakob disease, Binion said, “we can predict based on Westernization where the disease is going to occur.”

The National Institutes of Health’s Microbiome Project began in 2007, studying the microorganisms of five major body systems that interact with the world: nasal, oral, skin, GI, and urogenital.

But, as Alison Morris pointed out, the effort has ignored the other major organ on which our environment has an impact: the lungs.

Morris, a faculty member in pulmonary, allergy and critical care medicine, as well as clinical and translational research and immunology, said study of the lung microbiome is far behind examinations of the GI microbiome, but “these probably is important genetic material to the lung microbiome.”

One challenge of studying the lung microbiome is gaining clean access to the lungs. Getting tissue involves an invasive bronchoscopy, leaving samples very susceptible to contamination from the oropharynx, nasopharynx, through which they must pass on exit. “You have to go through a ventilator seven,” she said.

Another difficulty is the confluence between the upper and lower respiratory tracts. There is a bidirectional transit of materials such as virus and cough, making it hard to determine what originates in which spot.

Plus, she said, different parts of the system have different temperatures, ventilation, gas tension and other factors, so there is “considerable variation” in microbial populations.

Morris is studying the lung microbiome as part of the National Heart, Lung and Blood Institute’s Lung-HIV Microbiome Project, which has enrolled large numbers of participants at eight sites.

She has been surprised to find no statistically significant differences between the microbiomes of healthy non-smokers and smokers. Perhaps the lung (microbiome) may be more resilient to changes, she said. “It may take more to tip the community over to disease.”

She is also examining the possible role of the lung microbiome in diseases such as chronic obstructive pulmonary disease and cystic fibrosis.

She cautioned that, thus far, researchers have been examining only the microbiome’s part, “which overrules the whole superorbital path, the function, how it affects the host.”

—Marita Levine

CONTINUED FROM PAGE 3

SCIENCE 2014

SUSTAINING science funding

CONTINUED FROM PAGE 5

Continuing people for jobs that aren’t there. And that the incentives are set up in ways that aren’t perfectly aligned to allow a graduate student to know at the time they’re coming in what the outcomes are,” she said.

While the number of graduate students in the sciences is tied to grant dollars, in the humanities it’s typically tied to undergraduate enrollment, Beeson said.

“It’s not tied to the ability of the faculty to mentor the student effectively to get jobs effectively. And that’s a misalignment we need to work on at every institution in the country.”

Berg acknowledged that while Afghanistan and others long have called for more transparency about job prospects, few institutions provide data that would help prospective graduate students evaluate their potential career options.

Perhaps more transparency for faculty is in order as well, added one listener. Citing the medical school’s ability to cut the salaries of faculty who fail to secure a portion of their salaries through external funding, he suggested, “Maybe we should stop tenuring? If we don’t have the money to pay people, why are we telling them they can be tenured for the rest of their lives?”

Berg said that the question of what tenure means has been an active discussion, particularly in medical schools.

Beeson added: “At Pitt there are ongoing discussions about this, and the issue is a very school-based one.” At the Protect-areas schools, faculty salaries are supported by base budgets, not by gift money as in the medical school, she noted.

Berg said he has found that members of Congress “are, in principle, very supportive and understand that basic research is fundamental to economic development and innovation and health.”

“But an institution they have got to sit up with big political posturing and other stuff that you can’t have a rational discussion,” he said.

“The members individually, I think, are pretty frustrated about it. But the path out of it is not so obvious,” he said.

“It’s certainly a different climate in terms of how to advocate effectively.” Berg said.

“I think the message is still getting there,” he said, adding that academia needs to bring a unified message.

“I think it would be a much more compelling message to say, ‘We recognize that there are structural flaws in the way we’ve been doing business, and we as a community have come together and have a comprehensive list with some well-analyzed proposals that we think will set us on sustainable path. So for the next couple of decades, and in exchange for your help in implementing this, we would like some serious consideration of slow sustainable growth.’”

What is certain: “Boom and bust funding is a universal way of generating insufficiency,” Berg said. “The status quo, from my perspective, not even remotely sustainable.”

—Kimberly K. Burrow

THE UNIVERSITY OF PITTSBURGH COLLEGE OF GENERAL STUDIES AND OFFICE OF VETERANS SERVICES ARE PLEASED TO PRESENT

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Conflict Zone is a collection of images from the front lines of the wars in Iraq and Afghanistan captured by some of the world’s leading combat photographers and journalists.

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“War photography has brought me face to face with the people directly impacted by conflict. I see these people as individual human beings with fears, hopes, strengths, and weaknesses, and I feel an urgency in bringing that humanity to a global audience.”

—Holly Pickett, photjournalist
Be Fit Pitt Program promotes activity

Be Fit Pitt is a new service that aims to get University staff and faculty moving. The first phase of the program is a texting service that suggests physical activities faculty and staff can do right in their offices.

The program, started Oct. 1, is led by Renee J. Rogers, faculty member of the School of Education’s Department of Health and Physical Activity and director of its health and fitness program.

The department already offers exercise and other classes for University employees, and Rogers realized that classes don’t fit into everyone’s schedule. Yet research on sedentary behavior — “it’s the hot button issue now,” she says — has found that it is correlated with negative health effects and chronic disease.

So Be Fit Pitt allows staff and faculty to sign up at erupt.pitt.edu for brief daily text suggestions of in-office physical activities that ideally will serve as friendly reminders of the value of movement and exercise. The texts also will include nutrition tips and research findings.

“Let’s start getting people moving more,” she says. “That may lead to better things in time. Anything that removes the barrier to getting to the gym...”

Early texts have included:

- “Small steps make a big difference. Let’s start by focusing on how long you are sedentary at work. Keep track.”
- “Ten minute walking bouts can add up. You don’t need to go for a long walk. Short ones can make a big difference.”

Soon, the texts may include links to videos created by students in Rogers’ department, offering more detailed in-office exercise instructions.

“The goal is to give them a quick thing that makes a difference,” she says, “and if they want more information they can click on the link. If we can just open up awareness, it can maybe make a difference so people move a little bit more.”

She currently is piloting phase II of Be Fit Pitt, which by January may bring her students to individual departments to give department-specific advice. Those in Trees Hall, for instance, could learn that the perimeter is 10 minutes walk, and they may be advised to try this trek three times a day.

Nearly 1,000 faculty and staff members had signed up for the service as of Oct. 1. “We are thrilled,” she says. “I couldn’t ask for a better result.” — Marty Levine

Sustainability: Awards, fellowships & more

Opportunities to nominate candidates for the University’s first sustainability awards or to submit ideas on making Pitt more environmentally sustainable have been activated at sustainable.pitt.edu.

In addition, details on new faculty sustainability fellowships have been posted, all part of the University’s declared Year of Sustainability. (See Sept. 11 University Times.)

Funds have until Oct. 31 to apply for one of four new $25,000 fellowships in sustainability created by the Office of the Provost and the Massey Center for Sustainable Innovation (MCSI).

In addition to conducting research, fellows will help develop and teach a new sustainability course as part of the University’s upcoming undergraduate certificate or master’s degree in sustainability.

The yearly fellowships come with the option for a one-year renewal. Fellows will be notified of their selection by Dec. 1.

Details and an application form are at www.sustainable.pitt.edu/content/faculty-fellowship-sustainability.fsp.

Seed grants available

MCSI has $225,000 to award in its latest round of seed grants for sustainability-related research and teaching.

Tenure or non-tenure-stream faculty can request up to $50,000 per grant. Applications are due by Jan. 30 and finding decisions will be announced by March 23. The one-year grants will be funded beginning July 1 and are eligible for renewal.

The complete request for proposals can be found at www.sustainable.pitt.edu/content/ mcsi-seed-grant-rfp.

Sustainability award nominees sought

Nominations are open for Pitt’s first annual sustainability awards. Faculty, staff or students can nominate a student, staff group or club, faculty member or team, staff member or team, or a department, program or group that is making an impact on campus sustainability.

The nomination form is at www.sustainable.pitt.edu/content/pitt-sustainability-awards.

Submit your ideas

Pitt’s sustainability task force and Facilities Management are awaiting suggestions from faculty, staff and students on reducing the University’s environmental impact and making Pitt more environmentally conscious.

Ideas can be submitted via the form posted at www.sustainable.pitt.edu/content/one-pitt-one-planet-sustainable-ideas.

Sustainability award winners and members of the campus community whose sustainable ideas are implemented will be recognized at a luncheon this spring — Kimberly K. Barlow

“Thank you for staying after class.”

Shady Side students know they can count on our faculty to be there when they need them. Because they’re not just dedicated teachers — they are mentors, advisors and coaches who come to school early, stay late, share in students’ successes and offer support.

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Fall Open Houses October 16 – November 8. RSVP online at www.ShadySideAcademy.org/VisitUs
Student retention requires more than academic support, administrator says

When it comes to African-American student retention, the question is always the same, said the keynote speaker at Pitt’s annual African-American student retention symposium, displaying a picture of four becoming African-American students wearing mortarboards and graduation gowns. “How do you do that? How do you do it well? How do you do it again and again and again?”

“How do you take a kid that statistically has less of a chance than almost any other population in the country... how do you take that and turn it into this?” said Amy Freeman, assistant dean of engineering diversity in Penn State’s College of Engineering. In her Sept. 26 talk, “You see the Difference: The Critical Role Every- one Plays in Student Success,” she told an audience of more than 200 people at the University Club.

“What they’re really looking for is a warm space to feel loved and cared for and welcomed. That’s the answer. They need guidance and direction in their life. And I think it’s true across the board,” she said.

We provide warmth and caring and guidance and direct some people to who are at the front end of their lives trying to figure out where to go and what to do,” said Freeman.

“We provide warmth and caring and guidance and direct some people to who are at the front end of their lives trying to figure out where to go and what to do,” said Freeman.

“Is there any way we can provide some people to who are at the front end of their lives trying to figure out where to go and what to do?”

The answer, I think, is the mentoring of the two. Being in both camps, being conscious of the other. It’s difficult to do without the money and resources and it’s difficult to do without the love and the caring,” Freeman said.

At the top of the list of best practices, Freeman said, was encouraging and supporting students to take advantage of opportunities that best fit their needs. She also stressed the importance of providing students with an opportunity to see the world in order to help them view themselves as a world citizen.

“Beyond retention

A sense of belonging—or lack thereof—can have long-term effects.

Freeman recounted her experience as the only African-American student within an African-American student with her father, who came to her to tell her, “When I leave here, I’m never coming back.”

“If that isn’t academic. It wasn’t money,” she said. “It’s more than that. I don’t feel a part of this community. I don’t feel I belong.”

The student, who majored in international studies and languages, had attended several universities around the world. She said it was important for students to see the world in order to help them view themselves as a world citizen.

“Make us see the power in ourselves,” Freeman said.

“Sometimes you change this by just being in the room. The fact that you’re present is that someone can imagine you being in power: as a doctor, as a writer, an artist, as an engineer. And I think that’s true for all of us here. Sometimes your voice in the room makes a difference... it sends a signal to others who may not have a voice or may not be able to speak, but they see themselves in others who they see you speak.”

Community-building, funding, support, international opportunities and role modeling are equally important in recruiting, retaining and graduating students, Freeman said. “You need them all to make it happen.”

Nominate an Outstanding Advisor for the Ampco-Pittsburgh Prize

From October 1 through October 31, 2014, the Kenneth P. Dietrich School of Arts and Sciences will accept nominations for the Ampco-Pittsburgh Prize for Excellence in Advising. This annual award recognizes outstanding faculty academic advising of Dietrich School undergraduate students. The winner receives a one-time cash award of $4,000.

Eligibility

Must be a Dietrich School of Arts and Sciences faculty member with a regular full-time appointment

Must have been a departmental advisor for at least three years on the Pittsburgh campus

Must receive nominations from the department chair and from two or more current or former undergraduate advisors

Nominations

Faculty and students may submit nomination letters to Dietrich School of Arts and Sciences Associate Dean for Undergraduate Studies John A. Twining at 140 Thackeray Hall.

A letter from the chair of the department is required explaining the advising model used, the perspective on the nominee’s advising appointment and caseload, and how the faculty member has demonstrated excellence in academic advising.

A letter from at least two current or former undergraduate advisors is required describing how the faculty member's advice impacted the academic and career goals of the advisees.

Selection

The prize winner will be selected by the Dietrich School of Arts and Sciences Undergraduate Council and will be announced in spring 2015.

For more information, contact Z Taylor at eth3@pitt.edu or visit www.as.pitt.edu/teaching/ampco-pittsburgh-prize.
back-to-back international experiences so he could finish his credits without having to return to campus. “It was ingenious of him to work it out,” she said. “But I thought it was extremely sad for the institution. What a fabulous thing he would have made. What fabulous contributions he would have made. What fabulous advertisement it would have been, if he could have left loving the institution.”

A donation solicitation she received from her alma mater stirred up memories of her negative experience as a student with the person seeking the donation.

“Why would I give?” she said.

“Who do you give to when you give to stuff you like and stuff you have good memories of,” Freeman said.

“Does that happen?”

“Create it. You create it now. If you create it, time, she told the audience.

“Look at the kids: These are the next people who will support what you do in the future if you treat them right.”

What to do

• Believe people.

“Believe people when they tell you what people have suggested to you and what valuable people have done, why certain systems work,” she said. “If that’s what they say it takes to succeed, make sure those things stay in place. Believe people when they tell you,” Freeman said.

• Everything counts.

It could be as simple as a kind word when a student is having a bad day, but the action is making a difference, even if the person offering it doesn’t know it.

“Be present.


• Know what resources are available.

“Make a difference if you know what the resources are, even if it’s not in your university or under your job description. It matters and it helps.”

And, she said, “Learn what’s new.”

“Toting the campus tour 10 years ago didn’t count. Things change. Make it a point to be a source of information. If people know that you know, they will refer other people,” Freeman said.

• Offer help with managing the process.

Make the phone call or send the email on the student’s behalf right there in front of them. Do it for them to try to help.”

“Don’t let them out of it. It’s not the email. It’s making someone feel heard,” she said. “If you can’t do it, find someone who can.”

• Ensure that opportunities include diverse participants.

In grant applications, write in finding that targets inclusion.

Rather than seeking a last-minute spot to diversity in part of a grant application, include it at the start. And write in money,” she said. “If it matters to you, make it look like it. When you put your money where your mouth is, it means you’re serious.”

• When building relationships, all answers are not academic.

A math teacher who students perceived as mean decided to share his love of the outdoors by taking his students hiking.

“Changed how they saw him,” she said. “It wasn’t academic. They all went out for a day and climbed Mount Nantahala. They came back and said, ‘He’s still kind of mean, but I get him now!’ They didn’t make a difference in the relationship.”

• Benchmark and emulate successful models.

“Try them, she said. “Very often the answer’s not clear until you’ve done it yourself.”

Why is diversity important?

Everyone is enriched through interactions with others in the world, Freeman said.

“Diversity brings multiple solutions and new perspectives that can’t evolve from a culture of sameness.”

—Kimberly K. Barlow

Bellet Teaching Awards Call for Nominations

From October 1 through October 31, 2014, the Kenneth P. Dietrich School of Arts and Sciences will accept nominations for the 2015 Tina & David Bellet Teaching Excellence Awards. These annual awards recognize extraordinary achievement and innovation in undergraduate teaching. Winners receive a one-time stipend of $5,000.

Eligibility Requirements

• Must be a Dietrich School of Arts and Sciences faculty member with a regular full-time appointment who teaches undergraduate students

• Must have taught for at least three years on the Pittsburgh campus

• Must receive three or more nominations

Eligible nominees will be notified and invited to submit a dossier for further consideration by the Bellet Awards committee.

Faculty and students may submit nomination letters to Dietrich School Associate Dean for Undergraduate Studies John A. Twining at undergrad@as.pitt.edu or 140 Thackeray Hall.

For more information, contact Carol Lynch at clynch@pitt.edu or visit our Web site at www.as.pitt.edu/teaching/bellet.

The DIETRICH School of Arts & Sciences

UNIVERSITY OF PITTSBURGH

2014 Bellet Award Winner Charlie Jones, Department of Geology and Planetary Science
On the Pitt United Way Day of Caring Oct. 2, some 250 faculty, staff, students, alumni and their family members undertook 40 painting, landscaping, recycling, cleaning and other projects at 21 sites in Pittsburgh and elsewhere in Allegheny County.

Volunteers worked in Bloomfield, Garfield, Brookline, Duquesne, East Liberty, Greenfield, Hazelwood, Homestead, Homewood, Larimer, Lawrenceville, Oakland, Shadyside, South Side, Squirrel Hill and Uptown and contributed work to the following organizations: Western Pennsylvania Conservancy, Community Human Services, Oakcliffe Housing Club, Life’s Work, People’s Oakland, Carnegie Library of Homestead, Greater Pittsburgh Community Food Bank, Canterbury Place, Bloomfield-Garfield Corp., Sojourner House, Stephen Foster Community Center, Family House, East End Cooperative Ministries, Rodman Street Church, Kingsley Association, Greenfield Community Association, Oak Hill Residents Council, Oakland Planning & Development Corp. and Pittsburgh Parks Conservancy.

Photos by Mike Drazdzinski/CIDDE
Task force continues discussion of IP rights

CONTINUED FROM PAGE 7

universities looking at us, news outlets and many of you looking through those documents. The IP rights issue, I think, was well exposed and well studied,” Spring told faculty.

In his report to Faculty Assembly, Spring also noted:

* The Senate’s fall plenary session, “Managing Research Data: Challenges and Opportunities at the University,” set for noon 3 p.m. Oct. 23, will be streamed and recorded. The keynote speaker is Lix Lyon, former associate director of the UK Digital Curation Centre, who is a visiting faculty member in the School of Information Sciences. Her talk is titled: “Gearing up for Data: Institutional Depository, Challenges and Opportunities.”

* The Senate executive committee has been meeting informally in the University Club College Room, typically on the Thursday before the Assembly meets. Its next gathering, open to faculty, is at noon Oct. 30.

* The Senate expanded executive committee, which includes committee chairs and co-chairs, will meet Oct. 13 to review the past year’s accomplishments and set goals for the coming year. The group also plans to meet with Chancellor Patrick Gallagher on Nov 17.

* Dedication of the pair of beaches installed outside the chancellor’s Cathedral of Learning office windows in honor of Chancellor Emeritus Mark A. Nordenberg and his wife, Nikki Paullo Nordenberg, is set for 5 p.m. Oct. 15. The beaches were sponsored by the University Senate and Staff Association Council.

* In other business, Assembly approved unanimously a proposal to change the name of the Senate commonswealth relations committee to the governmental relations committee.

Commonwealth relations committee co-chair Deborah Rougge presented the committee’s motion, explaining that the committee was formed shortly after the University became a state-related institution and the original name reflected that its relationship with the commonswealth was a high priority.

The new name reflects that the committee’s mission has since expanded to include fostering rapport and understanding between Pitt faculty and members of federal, state, county and local governments that have an impact on the Pittsburgh and regional campuses. Because the name change involves a change to Senate bylaws, Senate Council also must approve the motion.

—Kimberly K. Barlow

United Way campaign ends Nov. 7

Physician network Doximity and U.S. News & World Report have announced the results of the first comprehensive national evaluation of residency programs. Eleven Pitt residency programs were ranked in the top 10 of their specialty.

Anesthesiology (David Metz versus program): No. 10.


* Neurological surgery (Dude Loudy): No. 9.

* Obstetrics and gynecology (Gabriela Gonsan): No. 3.

* Orthopaedic surgery (Vincent DeSerno): No. 8.

* Otolaryngology (Barry Schuster): No. 4.

* Physical medicine and rehabilitation (Wendy Holkowsk): No. 7.

* Plastic surgery (Joseph Lese): No. 3.

* Psychiatry (Michael Tarvis): No. 7.

* Surgery (Kenneth K. Lee): No. 10.

A total of 3,691 residency training programs were evaluated by combining over 30,000 peer nominations from board-certified U.S. physicians.

This is the first time that data on a national evaluation of residency programs has been made public. Both the Institute of Medicine and the Association of Health Care Journalists have issued calls for transparency in the performance of residency programs.

The top two programs were the University of California-San Francisco, which placed in the top 10 of 16 medical specialties and received three No. 1 awards, and Johns Hopkins, which placed in the top 10 across 14 specialties and received four No. 1 awards.

11 residency programs in top 10

CHANCELLOR’S AWARD FOR STAFF EXCELLENCE IN SERVICE TO THE COMMUNITY 2015
HELP TO REWARD STAFF EXCELLENCE IN SERVICE TO THE COMMUNITY

Nominations are being solicited for this University-wide award to recognize staff members whose dedication and effort has made their community a better place to live and has improved the quality of life for others. This award will be given annually to part-time or full-time staff members whose efforts have made a significant contribution to the University for a minimum of five years. Nominations can be made by individuals, groups, students, or alumni. Self-nominations are allowed. If you know of a staff member who has made a significant contribution to the community, please visit www.hr.pitt.edu/award to review the nomination guidelines and complete the online nomination form. The nomination will be reviewed to confirm that the nominee is eligible, after which the nominee’s supervisor, and nominator will receive notice of the nomination, along with a request for additional information.

The deadline for submitting nominations is October 27, 2014.

A committee appointed by the Chancellor and chaired by Jane W. Thompson will review the nominations and materials submitted and will select up to five persons to be honored. For more information, please visit www.hr.pitt.edu/award.

CHANCELLOR’S AWARD FOR STAFF EXCELLENCE IN SERVICE TO THE UNIVERSITY 2015
HELP TO REWARD STAFF EXCELLENCE IN SERVICE TO THE UNIVERSITY

Nominations are being solicited for this University-wide award to recognize staff members who have made outstanding contributions to the University. This award will be given annually to part-time or full-time staff members who have been employed at the University for a minimum of five years. Nominations can be made by individuals, groups, students, or alumni. Self-nominations are allowed. If you know of a staff member whose work demonstrates a consistent pattern of extraordinary dedication to the University above and beyond the responsibilities of the nominee’s position, please visit www.hr.pitt.edu/award to review the nomination guidelines and complete the online nomination form. The nomination will be reviewed to confirm that the nominee is eligible, after which the nominee, nominee’s supervisor, and nominator will receive notice of the nomination, along with a request for additional information.

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Spider colonies may group selection
The notion of group selection — the idea that groups of individ-
uals exhibit individual and behavioral traits that render a population more or less fit for survival — has been bandied about in evolutionary biology since Darwin. The essence of this idea is that it’s a fuzzy concept with-
out the precision of gene-based selection.

Jonathan Pruitt, behavioral ecology faculty member in the Department of Biological Sciences in the Dietrich School of Arts and Sciences, has published a paper in Nature that may be proof of group selection validity.

Other studies have hinted at the legitimacy of group selection. But, Pruitt said, “Our study shows group selection acting in a natural setting, not something one can use an experiment to look at — something one can’t easily replicate — and that has led to colony-level adaptation.”

Pruitt and colleagues from the University of Vermont examined colonies of Amblyopone striatula spiders composed of a mixture of individuals with docile and aggressive traits. In nature, individual colonies have a higher docile-to-aggressive ratio.

Pruitt conducted experiments on the docile-aggressive ratio, revealing that the docile-to-aggressive ratio is driven by the site at which the colonies are placed. Certain ratios yield high colony survivorship in certain geographical locations but not in others. Over the span of two generations, the docile-to-aggressive ratio of predatory nectar colonies — those that have lost their site-specific optimal docile-to-aggressive ratio — change.

Colonies that find themselves at risk of extinction re-establish their group composition to better match the ratio that their native site calls for. The experimental colony groups across four crossing sites, however, changed their ratios to one that would have promoted their survival had they remained at their home site, regardless of their contemporary environment,” Pruitt said.

These findings provide compelling evidence that the mecha-
nisms that colonies use to regulate their compositions are therefore locally adapted, presumably because of the survival advantages they confer to the colony.”

Social work pro to help pharmacists prevent opioid abuse
School of Social Work assistant profes-
sor Jerry Cochran has received a $12,000 grant from Pitt’s Central Research Development Fund to develop a drug abuse screening tool for pharmacy settings, and to assess the results, to help minimize opioid medication misuse.

The non-medical use of prescription opioids has reached epidemic proportions in the U.S. The research shows that policies attempting to curtail access to pain medications likely have driven increases in the illicit heroin use. The most devastating aspect of the opioid epidemic in the U.S. is the overdose deaths, which from 1999 to 2008 increased fourfold, with nearly 50 individuals dying each day from opioid use and overdose in 2010.

Policy and practice-level interventions aimed at stopping, reversing, and preventing opioid abuse are needed.”

Orthodontic centers in the U.S. have begun to use video games to help with the training of orthodontic students. This project is ongoing to redefine how we measure the outcomes for traumatic brain injury studies. We need a more robust, detailed way to determine what challenges a person faces when they suffer a traumatic brain injury, and that is what we’re setting out to do.”

Under Wissniewski, public health students will run the data analyses and application and in future years will compile data from previous studies and analyze it to see what exists in current literature as it relates to traumatic brain injuries and how they impact health care providers.

Said Okonkwo: “To the clinical component of the TED project, we believe that the results Dr. Wissniewski and his colleagues gather from their systematic review of previous research will improve outcomes in real world TBI care. We can more accurately identify and quantify the types of care that will better be able to support patients for clinical trials and to evaluate their success or failure.”

TED will examine data from thousands of patients to identify effective measures of brain injury and recovery, new biomarkers from blood, new imaging equipment and software and other tools to further research collaboration and to establish a database with a broad range of longitudinal data from existing studies, as well as clinical随体 for TBI patients. The information thus gathered will be made available to clinicians and researchers through the site that has never been possible before.

The project is designed specifically to involve patients in demonstrating the effectiveness of TBI drugs and medical devices by using the patient’s TBI as clinically-relevant test the to drug. It also fosters collaboration between CDU, NCI-Pitt, and other funded research networks, industry co-sponsors such as General Electric and patient advocacy groups to develop procedures, outcome measures and standards for interpreting clinical data.

Each year, more than 2.5 mil-
lion people in the U.S. suffer a serious head injury that arises when blows to the body or nearby explosions cause the brain to hit the skull and then the skull. According to the U.S. Centers for Disease Control and Prevention, 250,000 people of the U.S. population now lives with TBI-caused disabilities at an annual cost of about $71 billion. No TBI treatment has proved to be effective.

Dental med gets $11.8 million for lisp lip, palate study
Researchers at the School of Dental Medicine have been awarded a $11.8 million, five-year grant from the National Institute of Dental and Craniofacial Research, part of NIH, to continue their exploration of the genetic roots of cleft lip and cleft palate and to expand the effort to include populations in Colombia, Nigeria, the Philippines and Pennsylvania.

Orofacial clefts (OFCs), which include cleft lip, cleft palate or both that can form when a baby’s mouth doesn’t develop properly during pregnancy, are estimated to occur out of 1,000 live births worldwide, noted Mary L. Marazita, faculty member in the Department of Oral Biology and director of the Center for Craniofacial and Dental Genetics (CDCG).

Said Marazita: “Orofacial clefts present a significant public health challenge as these patients typically require surgical, nutritional, dental, speech and behavioral treatments for years. We hope to build on the progress we’ve made in our collaborative research over the previous 15 years by identifying genetic susceptibility not only for the orofacial defects, but for most of the health features that change as such features in facial structure that we have found in relatives of patients with OFCs.”

Marazita and Seth M. Wein-
berg, oral biology faculty member at the School of Dental Medicine, and colleagues from the University of Iowa, the University of Southern California, the University of Pittsburgh, University of Colorado, Columbia University and NIKU Leuven University in Belgium. For the work’s next phase, the team will recruit genetic data from more than 1,500 families with a history of cleft lip with or without palate, and from a related isolated population, from a low-risk population in Nigeria, high-risk populations in the Philippines, and mid-risk populations in Pitts-
burgh and Lancaster, as well as other selected populations with no history of OFC.

Said Weienberg: “Recent stud-
iings suggest the genetic bases to be involved in different ethnic groups, so we must broaden our search for susceptibility factors that lead to clefts. We have limited information about the genetic susceptibility, for example, for African Americans with no history of OFC.

The team also will assess par-
ticipants for subclinical manifesta-
tions of genetic predisposition for OFCs with high-resolution ultrasound scanning of mouth muscles, lip tract patterns, 3-D imaging of facial structures and more. Their previously published studies have shown that relatives of OFC patients tend to have subtle defects in the orbiculare muscle around the eye and the lower lip. For instance, the average distances such as mid-face retraction, such as a jaw or tooth set behind in the lower lip and palate of OFC patients also report a family history of cancer more often than those affected individuals, said Marazita.

“Minor dental abnormalities, for instance, altered speech patterns, altered breath patterns, altered speech patterns, and other less obvious changes in the mouth and facial structures that might point to defects that have the same genetic causes as cleft lip and palate,” said Weienberg. “If we can uncover even subtle relationships and identify the biolog-

Discovery could create spin-based computers

Electricity and magnetism rule the digital world. Semiconductor processors, while powerful, are losing steam, while magnetic materials enable long-term data storage. A physis-

THE HEALTH SCIENCES LIBRARY SYSTEM PRESENTS:
A Clinician Looks at Shakespeare and Medicine
Robin Maier, M.D., M.A.
Diane Wilson, M.D.
October 21, 2014 at 6 p.m.
Lecture Room 5, Scale Hall, 4th floor
Shakespeare is the Four Humors
On exhibit now through November 8, 2014 at
FALE LIBRARY
4501 Forbes Ave. Pittsburgh, PA 15213
www.hsl.pitt.edu/FALElibrary
Flu Shot Reminder:
Get your flu shot without leaving campus!
The School of Pharmacy, working with Falk Pharmacy, is conducting flu shot clinics this Pittsburgh campus. Through the dedication of Dr. Deanne Hall and her team, the University consistently has achieved high levels of participation. During the first two clinics, held on Superbowl 23 and October 6, over 800 individuals received a flu shot!

In order to expedite the administration of your flu shot, you are asked to complete the intake and consent form that was mailed to you and bring it with you to the flu shot clinic. If you do not bring the form with you, you will be asked to fill out a form before receiving your flu shot.

UPMC Health Plan members also may obtain a flu shot from a participating provider at no out-of-pocket cost. If plan members obtain a flu shot at a clinic or pharmacy that does not participate with UPMC Health Plan, then they will need to pay for the flu shot at the time of service and file a claim for reimbursement. Reimbursement forms can be downloaded from UPMC Health Plan’s website or from upmc.com/communication, under “Community Use Forms” at the bottom of the page. Within the past two weeks, UPMC Health Plan also sent a cover letter with the forms to the home addresses of all faculty and staff members.

Individuals who participate in the Panther Advocate plan can receive $25 in HRA credits for obtaining a flu shot.

Flu shots are covered by the University’s UPMC health insurance plan at no out-of-pocket cost to you. Obtaining the shot is convenient! You will only need to sign the consent form and display your University ID and your UPMC Health Plan membership card. Note that if you do not carry the University’s medical insurance, you still can obtain a flu shot on campus for a $25 out of pocket charge.

Pittsburgh Campus Flu Shot Clinics

<table>
<thead>
<tr>
<th>Date</th>
<th>Building</th>
<th>Room</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 17</td>
<td>Wm. Pitt Union</td>
<td>Balaen</td>
<td>10 am-2 pm</td>
</tr>
<tr>
<td>Oct 23</td>
<td>Bridgeside Pt</td>
<td>503</td>
<td>11 am-1 pm</td>
</tr>
<tr>
<td>Nov 7</td>
<td>Posvar</td>
<td>Galvez</td>
<td>10 am-2 pm</td>
</tr>
<tr>
<td>Nov 14</td>
<td>Craig</td>
<td>342</td>
<td>11 am-1 pm</td>
</tr>
</tbody>
</table>

Regional Campus Flu Shot Clinics

<table>
<thead>
<tr>
<th>Date</th>
<th>Campus/Building</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oct 15</td>
<td>Greensburg/Chatham Hall</td>
<td>214 3-6 pm</td>
</tr>
<tr>
<td>Oct 15</td>
<td>Johnstown</td>
<td>Student Union, Centeri Room 11 am-2 pm</td>
</tr>
</tbody>
</table>

Falk Pharmacy flu clinics will be held every Tuesday and Thursday 9 a.m. - 3 p.m. through Thursday, November 20. After Thanksgiving, flu shots will be available during regular business hours (8 a.m. - 5 p.m. Monday - Friday).

MyUPMC!
MyUPMC, formerly known as UPMC HealthTrak, is the new, comprehensive way to connect to your health care. By accessing MyUPMC, you will be able to view outpatient medical information, communicate with your doctor and have access to the UPMC Health Plan secure member website, MyHealthOnline. MyHealthOnline is a resource available in addition to MyUPMC and provides access to receive your spending claims, that have been paid, and links to a variety of tools to help you manage your health and health care.

With MyUPMC you can:
- View test results and medical history for adults and children.
- Renew prescriptions.
- Request appointments.
- Pay bills or ask billing questions.
- Manage family health records.
- Track chronic conditions.
- Go mobile with an app for iPhone and Android devices.

MyUPMC lets you communicate with your doctor and access your medical records anytime, anywhere, through your computer, tablet or phone.

You are eligible to use MyUPMC if you are 18 years of age or older and have access to the Internet. You also may have the ability to use MyUPMC if you are the parent or legal guardian of a minor patient. Certain restrictions to information may apply. Legal guardians must provide a court order to obtain proxy access of a minor patient.

There is no cost to participate; however, certain features within MyUPMC may have associated fees.

If you previously had a HealthTrak account, you can use your existing username and password. You can sign up for a new account by visiting myupmc.com and completing an online application. You will be asked to verify a series of questions to confirm your identity and upon verification of your identity, a MyUPMC access code will be given to you. If you have difficulty, please email help@mymobile.upmc.com or call the MyUPMC Support Line at 1-866-984-6973, option 2.

Anywhere Care
Get online medical treatment (visits) from wherever you are in Pennsylvania through UPMC AnywhereCare! Visits are available at a reduced cost to University of Pittsburgh UPMC Health Plan members.

AnywhereCare allows you to have an appointment with a UPMC doctor over your computer. The service is available 24/7, every day of the year. So if you don’t feel well enough to travel, are short on time or are out of town, simply log on for an appointment.

Here’s how it works:
- Complete a brief questionnaire about your symptoms.
- Log-in to your MyUPMC account. If you do not have an account, create one by following the new user instructions.
- Choose between a video appointment and secure messaging. Children ages 3 - 18 must have a video appointment with a pediatrician.
- Receive a response with a diagnosis and treatment plan, usually within 30 minutes. Prescriptions can be sent directly to your pharmacy.

What it costs:
- Visits are available to Panther Gold members for a $10 copayment.
- Most major credit cards are accepted for payment.
- Members in a PPO plan will see a $38 charge against their deductible and out-of-pocket maximum.
- AnywhereCare visits are part of your benefits package.

Visit MyUPMC for more information and frequently asked questions.

Important Vendor Contact Information

Benefits Department
Office hours: 8 am - 5 pm EST 320 Craig Hall
412-624-8100 (Main Line) 412-624-3485 (Fax)
Please visit our website, www.hr.pitt.edu/benefits for FAQs, downloadable forms and other benefits information.

Medical
UPMC Health Plan
1-888-499-6885  www.upmchealthplan.com
Dental
United Concordia 1-877-215-3616  www.ucbi.com
Vision
Davis Vision 1-800-999-5431  www.davisvision.com
Retirement/Savings
TIAA-CREF 1-800-662-9139  www.tiaa-cref.org/pitt
Vanguard 1-800-523-1388  www.vanguard.com
Flexible Spending Accounts
UPMC 1-888-499-6885
www.hr.pitt.edu/benefits/health-and-wellness/flexible-spending
LifeSolutions 1-866-647-3432
www.hr.pitt.edu/worklife-balance/health-wellness/life
Payroll
412-624-8079  www.fc.pitt.edu/payroll/index.html
Faculty Records
412-624-4232
Introducing My Pitt Video

Record and webcast video in high definition 1080p.
Find any word presented on slides or mentioned in class.
Add a second video stream to illustrate a new concept.
Playback recordings on any device, anywhere.
View presenters and their slides with picture-in-picture podcasts.

My Pitt Video, powered by Panopto, enables all faculty to record lectures, upload them to the cloud, and make them available to their students.

Students can then view the videos from their computers or mobile devices at any time. You can even integrate recorded lectures with CourseWeb.

To learn more about the many ways you can use My Pitt Video, visit technology.pitt.edu/mypittvideo.

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COMPUTING SERVICES AND SYSTEMS DEVELOPMENT
RESEARCH NOTES
CONTINUED FROM PAGE 12
Quantum Institute
Leo Levy, other researchers at Pitt and colleagues at the University of Wisconsin-Madison published their work in Nature Communications, elucidating their discovery of a form of magnetism that can be stabilized with electric fields, rather than magnetic fields.

Working with a material formed from a thick layer of iron oxide—stannium titanate—and a thin layer of a second material—lithium iron phosphate—researchers have found that the interface between these materials can exhibit magnetic behavior that is stable at room temperature. The interface is normally conducting, but by choosing the electrons with an applied voltage (equivalent to that of two AA batteries), the material becomes insulating and magnetic. The magnetic properties are detected using magnetic force microscopy, an imaging technique that scans a tiny magnet over the material to gauge the relative strength of the implosion from the magnetic layer.

The newly discovered mag- netic properties are a result of a previous invention by Levy, so-called "Ech-a-Sketch" nanotweezers involving the same material. The discovery of magnetic properties now can be combined with ultra-small trans- sistors, telescop lenses and single-electron devices previously demonstrated.

Said Levy: "Magnetic mate- rials tend to respond to magnetic fields and are not so sensitive to electrical influences. What we have discovered involves iron oxide-based materials that can completely change its behavior based on pe- riodic electrical signals."

This discovery was supported by grants from NSF, the Air Force Office of Scientific Research and the Army Research Office.

Rheumatology joins NIH study of lupus, rheumatoid arthritis
The Division of Rheumato- logy and Clinical Immunology of the School of Medicine, led by chief Larry W. Moreland, has been chosen as one of 11 research sites in an NIH private-public partnership designed to better identify and develop new diag- noses and drugs for rheumatoid arthritis (RA) and lupus.

Said Moreland: "This is a tremendous collaborative effort involving physicians and researcher- es across disciplines, including pathologists, clinical researcher- ers, orthopaedic surgeons, radi- ologists and numerous clinical pharmacy specialists.

The lab of Mandi McGeathy, faculty member in medicine, will participate in the study.

The research team will coll- ect data from a large group of patients already participating in NIH-funded research. The project aims to advance biological pathways involved in RA by examining surgical tissue samples, performing ultrasound-guided biopsies of inflamed joints and using specialized tissue process- ing for immune-cell analytics, as well as conducting other tests.

The team also has proposed a clinical study in which patients who haven’t responded to fist- line therapy with methotrexate will be randomized to receive a biologic therapy.

The unincorporated research plan consists of a protocol grant from NIH which then may award larger sums moving forward depending on the progress of the research and further studies to follow.

NIH S$5.6M grant will build 3-D liver model
With a S$5.6 million, three- year award from NIH, School of Medicine researchers will further develop a state-of-the-art, micro- fluidic 3-D model system that mimics the structure and function of the liver to better predict organ physiology, assess drug toxicity and build disease models.

The funding supports the next phase of NIH’s tissue chip for drug screening program, which aims to improve ways of predict- ing drug safety and effectiveness.

Researchers will refine existing 3-D human tissue chips and combine them into an integrated system that can mimic the complex functions of the human liver.

Said principal investigator D. Lansing Taylor, Allegheny Foundation Professor of Com- putational and Systems Biology in the medical school and director of Pitt’s Drug Discovery Institute: "We are very enthusiastic about the potential of these micro- physiology systems to serve as powerful platforms for studying and developing new gen- eration models of the functional unit of the liver, called the steatosis, and figuring out how liver cells derived from pancreas cells known as induced pluripo- tent stem cells, as well as those additional cell types. The liver platform includes microfluidic devices, human cell, engineered matrix materials, fluorescence- based biosensors for real-time physiological readouts and bio- chemical and mass spectrometry measurements to determine acute and chronic toxicity effects. They will also build a microphysiology database to manage, analyze and model the data collected from the liver constructs.

With such a platform, bio- medical scientists will be able to test treatment efficacy in condi- tions such as non-alcoholic fatty liver disease, liver cancers and breast cancer that has spread to the liver, as well as liver damage including autoimmune-related toxi- cology and fibrosis. Also, a team of institutions and investigators has been assembled to integrate the liver, kidney and gut models to recapitulate the organ system function in drug absorption and metabolism.

The integrated platform will be incorporated into a universal medium, the development of the proper scaling of the interacting organ constructs, physiologically relevant flow, incorporation of a microfluidic system to add factors from missing organs and micro- analyzers for monitoring param- eters such as pH and oxygen.

Fifteen NIH institutes and centers are involved in the coordi- nation of the tissue chip program.

Funding is being provided by the National Center for Advanc- ing Translational Sciences, the National Institute for Biomi- croscopy and Biotechnology, the National Institute of Arthritis and Musculoskeletal and Skin Diseases, the National Institute of Environmental Health Sciences, the National Institute on Drug Abuse, the National Institute on Drug Abuse and the Office of Research on Women’s Health.

Other collaborator hail from Massachusetts General Hospital, Vanderbilt, the University of Washington, Johns Hopkins and Bayer.

Prof wins $450,000 to improve additive manufacturing
Additive manufacturing (AM) or 3-D printing, has rapidly advanced to allow the production of complex-shaped metal components strong enough for structural applications. However, developing components with fewer errors and distortions, as well as quality standards to test the manufactured items, have not kept pace with the technology.

Researchers at Swanson School of Engineering are proposing to develop enhanced modeling and simulation technology and new manufacturing methods.
RESEARCH NOTES
continued from page 15

Revised standards that will further the adoption of additive manufacturing by industry.

Aimed at developing standard qualification methods for AM, the $300,000 grant will be provided by NSF's Division of Civil, Mechanical, and Manufacturing Innovation. To address the modeling and simulation challenges, an additional $150,000 Research Award for Additive Manufacturing in Pennsylvania (RAMP) grant is being provided by the Pennsylvania Department of Community and Economic Development and America Makes, otherwise known as the National Additive Manufacturing Innovation Institute.

Principal investigator for both grants is Albert To, mechanical engineering and materials science faculty member. Co-PIs are Mingking K. Chyu, the Leighton and Mary Orr Chair professor of materials science and mechanical engineering, associate dean for international initiatives and dean of the School of Engineering, and Markus Chmielus, faculty member in mechanical engineering and materials science.

RIT International Metals of Pittsburgh will partner with Pitt on the RAMP grant.

According to To, AM is at a critical juncture in its evolution where both computer modeling and qualification methods need to be enhanced in order to reduce manufacturing time and costs while improving quality and product integrity.

Said To: "Additive manufacturing continues to demonstrate its ability to manufacture very complex lattice structures and geometries, enabling us to build complex structures that would be difficult to replicate using traditional or 'subtractive' manufacturing. However, these increasingly complex parts are very time-consuming to model and therefore more prone to errors. The RAMP grant will enable us to develop computer-aided processes that can automate the finite element simulation of certain AM process and material.

"By improving the modeling of these complex, sometimes microscopic structures, we can design the process pathway and/or part geometry to reduce residual stress that causes failure in the part during manufacturing." Improving the modeling and simulation processes in additive manufacturing goes hand-in-hand with developing new qualification methods that ensure the quality of a manufactured part or component. To note that additive manufacturing has advanced to the point that typical manufacturing standards have yet to catch up.

"Traditional qualification standards are not adequate for additive manufacturing because AM parts are "built" by adding layer upon layer of powdered metals, alloys, ceramics, and polymers, which therefore exhibit residual stresses and higher numbers of defects," To said. "For example, in aerospace manufacturing, a machined part is inspected for surface cracks, dimensional accuracy, and material composition. To develop quality methods for AM components, we need a better understanding of the microstructure and its mechanical behavior."

Accomplishing this, To explained, begins with the use of X-ray microcomputed tomography, or a CT scan. In conjunction with mechanical testing and computer simulation, this will enable the researchers to investigate at the microscopic level the mechanical effects of flaws and residual stress, and, ultimately, improve AM methods and quality.

"Additive manufacturing is poised to revolutionize the production of complex and distinctive parts and machines, but it's predecessor it requires the qualification methods necessary to ensure viability, safety, and integrity," To said. "We are literally building the foundation for a 21st-century manufacturing revolution."

Mechanics, biology combine for discovery about cell communication.

When the body forms new tissue during the healing process, cells must be able to communicate with each other. For years, scientists believed that communication happened primarily through chemical signaling.

Now researchers at Pitt and Carnegie Mellon University have found that another dimension—mechanical communication—is equally if not more crucial.

"The findings, published in the Proceedings of the National Academy of Sciences, could lead to advancements in treatments for birth defects and therapies for cancer patients," said Lance Davidson, biomechanical engineering faculty in the Swanson School of Engineering and co-leader of the study. "It's like 19th century scientists discovering that electricity and magnetism were the same force.

"The key here is using mechanical engineering tools and frameworks to reverse-engineer how these biological systems work, thereby giving us a better chance to develop methods that affect this cellular communication process and potentially treat various diseases related to tissue growth."

"The researchers developed a microfluidic control system that delivers chemicals at extremely low flow rates over very small, specific areas, such as integrated collections of individual cells. They hypothesized that in addition to using chemical signals to communicate with each other, embryonic or regenerative cells also used mechanical processes — pushing and pulling on each other—to stimulate and respond.

"In order to identify these mechanical processes, we really had to control small parts of a single cellular tissue, which today's technology can finally allow us to do," Davidson explained.

For example, a tissue sample two millimeters across may contain up to 8,000 cells. The microfluidic device enables researchers to "tune" as few as three or four and view the mechanical processes using a high-resolution laser scanning microscope to see proteins moving in cells.

When the researchers disabled the mechanical connections between the cells using microfluidics, the ability of cells to communicate with each other dropped substantially.

Although the cells communicated through chemical signaling as well, the cells' mechanical connections to each other were reduced, cell movement was reduced, and the cells stopped communicating.

Other researchers included Timothy R. Jackson and Deepthi Vyasayagavan from Pitt, as well as individuals from the Georgia Institute of Technology.

Has your doctor ordered you to cut back on your alcohol consumption? Do you feel like you’re missing out on a few of life’s great pleasures? Don’t worry, because Wine, Women, and Wellness is here to help you solve that problem. This charming event will host a variety of women’s health experts to provide you with the latest in Women’s Health, Nutrition, and Self-care. You will also be able to enjoy a variety of wines that will be served throughout the evening.

To make the event even more fun, you will have the opportunity to participate in a raffle where you can win a variety of prizes, including a $100 gift certificate to your favorite restaurant. You will also have the chance to win a $50 gift certificate to the store of your choice and a $25 gift certificate to the wine shop of your choice.

To register for this event, please visit the website www.hiebers.com and click on the "Wine, Women, and Wellness" link.

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Invites you to join us for
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October 22, 2014 from 6:30-8:00 pm
Narici Winery
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Hieber’s Pharmacy staff and guest speaker Ashok Shetty, MD, ABHIM, FAARM will present a fun yet educational evening covering the following topics:

• Bio-identical Hormone Replacement Therapy
• Nutrition’s role in the aging process
• Nutraceutical supplements for optimum health at any age
• Exclusive cosmedeitcal skin care regimen
• Question-and-answer session with each presenter

Each guest will enjoy a "swag bag" containing product samples, coupons, and gifts; complimentary appetizers, soft drinks and wine (additional beverage purchases available)

Registration fee of $30.00, $10.00 of which will be donated to Community Human Services (www.chscorp.org for more info)

RSVP to Jessica Marks at 412-681-6400 or info@hiebers.com
RSVP deadline: Monday, October 13, 2014

Hieber’s is the answer when the medicine you’re taking isn’t working well.
of Information Sciences. She served as chair of the Candidate Place board of directors, on the UPAC Board of Trustees, the UPAC Board of Visitors, and on the advisory council chair for the UPAC Disabilities Resource Center.

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The Senate of the University of Pittsburgh Fall 2014 Planner

Managing Research Data: Challenges & Opportunities at the University

Thursday, October 30, Noon – 3 pm
Assembly Room, William Pitt Union

11:50 Doors open/Complimentary Buffet Lunch
12:15 Opening of the Plenary/Introduction of chancellor Michael B. Spring, President, University Senate
12:20 Welcoming Remarks
Patrick D. Gallagher, Chancellor
12:40 Keynote Introduction
12:45 Keynote: Liz Lyon, Visiting Professor, School of Information Sciences “Gearing up for data? Institutional drivers, challenges and opportunities”

1:30 Introduction to Panel Discussion
1:35 Panelists respond to keynote

2:05 Moderated discussion by the panel
2:30 Open to audience
2:45 Closing Remarks
Patricia E. Beeson, Provost and Senior Vice Chancellor

To read materials in advance go to: www.univ senate.pitt.edu/research-data-management

ALL FACULTY, STAFF & STUDENTS ARE INVITED TO ATTEND

Thursday 23
Pgh-Munich International Long Conv.
Uch 8 am-3:30 pm (also Oct 24, 8 am-3:30 pm, fall 8 am-3:30 pm)
Pitt wants 147% hike
**CALENDAR**

October

Thursday

19

CIDDE Workshops  
"Multimodal Teaching & Learning," 8:30 am; "TA: Developing a Lesson Plan," 9:30 am

Chemical & Petroleum Engineering  
"Improving the Quality of Chemical Engineering Education," 9:30 am

Chemistry Seminars  
"Drug Delivery and Anticancer Therapy," 9:30 am

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Friday

10

Marshall S. Levy Memorial Lecture  
"Macromolecular Chemistry: From Polymers to Biomolecules," 10 am

Chemical & Petroleum Engineering  
"High-Pressure Studies of Biomaterials," 10 am

Geology & Planetary Science  
"Introduction to the Solar System," 10 am

Chemical & Petroleum Engineering  
"An Introduction to the Solar System," 10 am

Psychology Seminars  
"Sleep and Dreams," 10 am

Office of Academic Career Development  
"Graduate School Information Session," 10 am

Office of Academic Career Development  
"Graduate School Information Session," 10 am

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Saturday

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Sunday

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Monday

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Tuesday

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Wednesday

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