Honoring a Legacy of Building Greatness, Transforming Lives, and Holding Fast to a Faith in Education

This is the print version of Chancellor Mark A. Nordenberg’s Winter 2012 Report to Pitt’s Board of Trustees, delivered on Feb. 24.

The sainted Mother Teresa said this, among many other memorable teachings: “What you spend years building, someone could destroy overnight. Build anyway.” Those words have particular significance for Pitt today—as we prepare to celebrate a long and proud 225-year history of building better lives, as we press forward with our own determined efforts to build further on an already impressive institutional legacy; and as we continue to contend with serious threats, through deep and disproportionate budgetary reductions, to a relationship with our home state that has been critical to much of what we have been able to contribute to its people.

On Feb. 28, 1787, the people of Pittsburg—led by our founder, Hugh Henry Brackenridge, and supported by state government—began building something very special here. Authorized by an act that began with the simple declaration that “the education of youth ought to be a primary object with every government,” they built the wilderness academy that would become our world-class university. They did so to earn a living, to make a contribution to the harvest of young people admirably trained to earn a living, to make a contribution to the community, their profession, and their country.

But from early times, this University became something even greater than that—a place that changed the shape of lives through the transforming power of ideas. Let me offer just a few telling examples that take us across an extended time line.

• In the 1920s, Pitt engineering professor Reginald Fessenden proved that radio waves could be used to transmit the human voice. On Christmas Eve of 1906, he broadcast carols and a violin solo, by radio, across the Atlantic Ocean.

• In the 1960s, Pitt graduate Vladimir Zworykin invented a TV transmitting and receiving system employing cathode-ray tubes, an advance that was critical to the operation of a functional air television system employing cathode-ray tubes.

• In the early 1990s, Pitt astronomy professor Allegheny Observatory director, and aviation pioneer Samuel Langley launched the first power-driven, heavier-than-air flying machines, paving the way for human flight.

• Today, the Langley name adorns many important Air Force and NASA facilities, just as it adorns our own Langley Hall.

Chancellor Names Winners of Staff Awards For Excellence in Service

Chancellor Mark A. Nordenberg has announced the winners of the 2012 Chancellor’s Awards for Staff for Excellence in Service to the Community and to the University. The honorees were recognized during the University’s 36th Annual Honors Convocation on Feb. 24.

The Award for Staff for Excellence in Service to the Community recognizes staff members whose work in the community surpasses the expectations of the organization through extraordinary service efforts and commitment and effort have made a significant impact on the community. The two award recipients are Peter L. DeNardis, a senior information analyst in Pitt’s Office of the Chief Financial Officer, and Penny Semaia, assistant athletic director for student life in Pitt’s Department of Athletics.

The Chancellor’s Award for Staff Excellence in Service to the University recognizes and honors those who have exceeded job standards and expectations in performing their duties, but also make a significant impact on the University. The two award recipients are Frank Dermody, House Minority Leader, and Jonathan Brooks, associate dean and director of residence life in the Division of Student Affairs; Christina L. Graham, director of student activities at Pitt-Bradford; and J. Andrew Holmes, machinist supervisor in the Swanson School of Engineering.

Each awardee will receive a $2,500 cash prize and have his or her name added to a plaque displayed in the William Pitt Union that is inscribed with the names of all recipients of the Chancellor’s Awards.

Staff Excellence in Service to the Community

The chancellor praised DeNardis’ commitment and service to the International Waldenstrom’s Macroglobulinemia Foundation (IWMF), a support organization formed for a rare type of blood cancer that DeNardis himself is battling. In his Feb. 16 notification letter to DeNardis, the chancellor wrote that he was “struck by the fact that you not only are there to provide counsel and comfort to your fellow patients, but also work to improve the WMF itself through your service on its Board of Trustees, and as a discussion list manager, webmaster, and patient database coordinator. . . .”

DeNardis also said that DeNardis, in his role as a senior information analyst at Pitt, has “earned the respect and admiration of his Pitt colleagues as well as those involved with IWMF. In a support letter for DeNardis’ nomination, Judith May, IWMF president, praised his and committing it has "enabled the foundation to significantly improve its outreach.”

The IWMF Foundation committee commended Semaia for his “above and beyond” service in the community, the chancellor said in his letter to Semaia. “On campus, our student athletes could not have a better role model than to have a former standout...
For more than two centuries, Pitt has advanced the long-accepted values that access to higher education is a key to individual pursuit of the American dream and that a well-educated populace is essential for national and regional prominence and prosperity.

Because of the hard work done by so many, the University of Pittsburgh is moving through what should be another banner year, building on its enviable record of impact and accomplishment in education, research, and public service. Pitt also is moving through an historically important year, with next week bringing the 225th anniversary of our founding, as a log-cabin academy situated at the edge of the frontier. Unfortunately, what almost certainly will prove to be most memorable about 2012 is that an already brutal budget year has been made far worse by another proposal for deep and disproportionate cuts. For more than two centuries, Pitt has advanced the long-accepted values that access to higher education is a key to individual pursuit of the American dream and that a well-educated populace is essential for national and regional prominence and prosperity.

Because of the hard work done by so many, the University of Pittsburgh is moving through what should be another banner year, building on its enviable record of impact and accomplishment in education, research, and public service. Unfortunately, what almost certainly will prove to be most memorable about 2012 is that an already brutal budget year has been made far worse by another proposal for deep and disproportionate cuts.
Alaine Allen Is Investing in the Future of Youth

By Audrey M. Marks

As a student, Alaine Allen excelled in math and science, all the way from elementary school through college. And in her first job as a physics teacher in the Woodland Hills School District, she was confident that she could engage her students in the sciences. Early on in her career, Allen realized that her true passion was more in connecting with and guiding students than in teaching science.

One particular incident brought this realization to the fore: During a fifth-period physics class, a student burst into Allen’s classroom in tears. The student, a teen mother, told Allen that her boyfriend had been shot and hospitalized the night before. Following school protocol, Allen walked with the student to the Student Assistance Program office.

“The woman in the office quickly returned the student to my room and offered to cover [my] class while I talked to the student,” Allen recalled, adding, “I could teach physics and students, but I could engage the students. But I realized that I was more excited and passionate about making a personal connection with the students.”

So, in 1994, Allen left the classroom to work full-time for the University of Pittsburgh’s INVESTING NOW, a program that encourages high school students from underrepresented populations to choose careers in the sciences, technology, engineering, and math (STEM) fields.

Today, she is the director of the Swanson School of Engineering’s Pitt Engineering Career Access Program (PECAP), which helps open the STEM fields to students from underrepresented populations. PECAP comprises both INVESTING NOW and Pitt EXCEL, a program for Pitt students enrolled in the Swanson School of Engineering.

Allen, who earned bachelor’s degrees in physics and secondary education in 1991 from Lincoln University, received her master’s degree in education from Pitt’s School of Education in 1993.

Since returning to Pitt, Allen has made her mark on campus. In 2011, she received the Chancellor’s Affirmative Action Award, given annually to an outstanding University program or individual that has made a significant contribution to affirmative action. In his letter to Allen informing her of the award, Nordenberg said the selection committee “lauded you as an ideal administrator whose experience with the range of services provided by the Swanson School of Engineering and the University brings the continuity of commitment and vision necessary to maintain both the reach and the depth of PECAP’s affirmative action mission.” Nordenberg also noted that he was “particularly impressed” that Allen’s nomination was supported by two former PECAP participants.

In 2010, Pitt’s African American Alumni Council presented Pitt EXCEL with the 2010 It Takes a Village Sankofa Award, recognizing the program’s efforts to support the academic success of Pitt’s African American students. While Allen said the accolades are encouraging, one of her biggest career rewards is watching students succeed. She said she and Darryl Wiley, the INVESTING NOW assistant director, hope to expand the reach of the precollege program by increasing the number of students involved and discovering new opportunities to engage high school students in math and science.

The INVESTING NOW program, established in 1988, accepts between 50 and 60 new eighth-grade students each year. Successful applicants must have an academic grade point average of 3.0 or higher, the recommendation of a teacher, healthy standardized test scores, and an interest in STEM.

Participating students take summer noncredit math, science, and writing classes in the morning followed by an afternoon class involving them in a hands-on engineering project. With a total of 150 students in the program today, INVESTING NOW works with students as they progress through high school, offering academic enrichment as well as advising, tutoring, hands-on science and engineering seminars, and other opportunities designed to help them make informed college choices.

“Some students are the first in their families to attend college and don’t know how to navigate the process,” Allen said. “In other instances, parents may not know the STEM profession or the college admissions requirements to enter those majors. We are here to offer students support and to encourage parent involvement.”

The INVESTING NOW program has impressive results: 94 percent of the most recent class, the Class of 2011, enrolled in college, with 64 percent pursuing STEM-related fields. Of those students, 13 percent enrolled at Pitt.

Allen said she understands the value of teacher encouragement for teens. When she was in middle school, a teacher encouraged her to explore her passion for math and science through a similar program. As an Allderdice High School student, she enrolled in the precollege program INROADS, where she attended summer classes at Duquesne University and even a class in Pitt’s Benedum Hall. The math, science, and writing courses helped to strengthen Allen’s academic skills and introduced her to STEM careers.

“INROADS provided a pathway to the STEM field through the interaction with teachers and other adults who encouraged me to pursue a career in science,” Allen said. “No one I was connected to personally at the time could help me navigate a career and future in math and science. I was attracted to these precollege programs because of the interaction and guidance.”

In addition to reaching students years before they enter college, Allen also works with enrolled students at Pitt through the Pitt EXCEL program. The comprehensive initiative aims to bolster the recruitment, retention, and graduation rates of engineering students from underrepresented populations.

Allen describes the Pitt EXCEL Summer Engineering Academy as an academic boot camp for Pitt freshmen, with the students taking math, physics, chemistry, and engineering problem-solving classes. They also learn about campus resources and career development. The sessions include community building and “mandatory fun time,” Allen said, which includes game night, a trip to Kennywood, and a Pirates game.

In addition to the Summer Engineering Academy, Pitt EXCEL offers participants academic counseling, tutoring, peer mentoring, and professional development. “The rigor of the engineering program requires a support network,” Allen said. “Students need to understand that they will have a better chance of being successful if they enter it knowing about these supports.”

As a former science major, Allen said she remembers the stress of the academics: “At Lincoln, I had a program similar to Pitt EXCEL and teachers who helped me through the stress and pressure of being a STEM student,” Allen said. “We know Pitt is a large university and students are adults, but it is important to help guide our students through this process.”
HONORING A LEGACY OF BUILDING GREATNESS, TRANSFORMING LIVES, AND HOLDING FAST TO A FAITH IN EDUCATION

CONTINUED FROM PAGE 1

In the 1980s, Pitt astronomy professor, Allegheny Observatory director, and aviation pioneer Samuel Langley launched the first power-driven, heavier-than-air flying machines, paving the way for human flight.

In the 1930s, Pitt chemistry professor Charles King synthesized vitamin C, which prevents scurvy, one of humankind’s oldest diseases.

In the 1950s, a Pitt team led by the late Jonas Salk and including current Pitt faculty member Julius Youngner developed the vaccine that won America’s long war against the dread disease of polio. This has been widely hailed as one of the greatest accomplishments of the 20th century.

In the early 1960s, a Pitt team led by Panayotis Katsyrianis synthesized insulin. Until this time, insulin for human treatment was obtained from sheep and cows through a process that was messy, complicated, and expensive.

Building on his Pitt graduate studies in the late 1950s and early 1960s and through work extending into the 1970s, alumnus Paul Lauterbur developed the science upon which magnetic resonance imaging was built. For this contribution, he was awarded the Nobel Prize in Medicine.

Beginning in the 1960s and extending throughout the 1970s, Pitt professor (and double Pitt graduate) Bernie Fisher led studies concluding that breast cancer is a systemic and not a local disease, which resulted in dramatic and hugely beneficial changes in its treatment. There are those who believe that Dr. Fisher has done more to advance women’s health than any other person in history.

In the 1970s, the recombinant DNA, gene-splicing work done by Pitt graduate and former Trustee Herb Boyer opened up what had been unimaginable possibilities for dealing with disease. That work was said by Time magazine to have “forever changed the course of civilization.” It also led to Herb’s founding of Genentech, marking the beginning of this country’s biotechnology industry.

In the last 25 years, as you all know, Pitt has just exploded—as an educational institution of choice for ambitious, hardworking students across almost every discipline; as one of the world’s most respected centers for pioneering research; and as one of the institutional anchors that helped Southwestern Pennsylvania move successfully through one of the most wrenching economic transformations ever experienced by any region.

In today’s Pitt, our principal responsibility can be seen as doing honor to the legacy of those who came before us by advancing their work through our own efforts to effectively build upon it. In that pursuit, we have continued to build momentum on all fronts. Let me rely on just a few examples which have arisen just since our fall meeting.

Cory Rodgers, the first university student in a four-generation family of bricklayers from Somerset was one of 32 students nationally to be named a 2012 Rhodes Scholar. Cory will graduate with a triple major—in African studies, the biological sciences, and the history and philosophy of science—and with a minor in chemistry. He also studied Swahili. In addition to pursuing his academic work, he tutored a Somali-Bantu refugee family; served as a hospice volunteer; and worked in UPMC’s patient transport division. He did an alternate spring break with Habitat for Humanity and spent summers studying in Mongolia and Tanzania.

Cory is the fourth Pitt undergradu- ate in the past seven years to be named a Rhodes Scholar, a record equaled by only one other public university, the University of North Carolina. He also represents the large number of Pitt students who compete successfully each year with the very best students from the country’s strongest universities for the highest national honors. Since we last met, Pitt also was again recognized as one of the country’s top producers of student Fulbright award winners.

In terms of alumni achievement, let me again offer just a single example. And in this case, I look right into the heart of this group at Trustee Bill Strickland, who recently traveled to Japan to receive the Gist Peace Award. Past recipients have included Microsoft founder and philanthropist Bill Gates; former Costa Rican President and Nobel Peace Laureate Oscar Arias; social entrepreneur Bill Drayton; and Indian physicist and author Deepak Chopra.

Bill was recognized for his visionary work in helping “the underserved transform their lives” and in “inspiring others to dream bigger.” The selection committee stated, “by offering innovative educational and cultural opportunities with emphasis on the arts, beauty, and respect, Mr. Strickland has empowered thousands of youth and adults to restore hope and dignity and become creative contributors to their communities.” Bill, we proudly claim you—as graduate, Trustee, and friend.

And, finally, Bill really stands as one among many inspiring examples of all the good that can be done with a Pitt education. As you all know, just since the dawn of this new century, our graduates have captured such high honors as the Nobel Peace Prize, the Nobel Prize in Medicine, the Pulitzer Prize for Fiction, the National Book Award for Poetry, the National Medal of Science, the Feinberg Prize for Engineering, and the Shaw and Albany Prizes in Medicine. That record would be the envy of virtually any university.

Within the faculty, it is hard to know where to begin and end, because so many important forms of recognition have been earned just in the past few years. Let me, then, rely on a group example.

As you know, Pitt faculty members are expected to impart knowledge about their fields, as all teachers do. But they also are expected to be at the forefront of expanding the base of human knowledge by building their fields. Our faculty members continue to build an enviable record of doing just that, across wide-ranging disciplines.

Bill, in fact, we dominate key fields. But I am not sure that I ever have seen such a stark example as the one I am about to share. At its annual meeting in Houston earlier this month, the American Heart Association selected 20 world-renowned intensivists to be the first to receive its highest honor—designation as a Master in Critical Care Medicine. Seven of the 20 members of that inaugural class of honorees came from Pitt, which is just extraordinary.

Three of the seven no longer are in active service with us—the late Peter Safar, the father of CPR, a great human being, and a person who belongs on any list of legendary Pitt faculty members; Professor Emeritus Ake Greenwald, also a giant in his field, a beloved member of this community and, along with John Swanson and John Petersen, surely among the most important Scandinavians in the Pitt family; and Mitchell Fink, the founding chair of our critical care medicine department, who left academia to start a company based on technology that he had developed.

Four of the 20, which still is one-fifth of the entire group, continue to work among us. They are Derek Angus, the current department chair; Pat Kochanek, the director of the Safar Center for Resuscitation Research; Ann Thompson, the associate dean for faculty affairs in the School of Medicine; and Michael Pinsky, who also serves as the president of the University Senate.

Much of our faculty research, particularly in the sciences and health sciences, is supported by outside funding. We continue to rank among the top American universities, both in funding from the National Institutes of Health and in overall federal science and engineering research and development support. Our research expenditures last year exceeded $800 million—an amount that is a widely accepted measure of institutional strength, that advances pioneering work, and that supports, directly and indirectly, some 28,000 local jobs. This is one reason that the education and health

Continued from page 5

Continued on page 5
In the 1980s, Pitt professors Henry Bahnson and Thomas Starzl performed the world’s first double-organ transplant. During that same period, most of the surgical techniques and drug therapies that made human organ transplantation a widely available treatment option were developed here.

Those actively engaged in the energy sector agreed. Steve Trisch — who was not our Board Chair when he served as CEO of Westinghouse — reminded everyone that a key factor in that major employer’s decision to build its new corporate headquarters in Southwestern Pennsylvania was the presence of Pitt, as a principal educator of its professional workforce and as a partner in energy research. Anthony Cugini, director of the Triennial Energy Technology Laboratory, said that his lab “is charged with advancing energy options to fuel our economy, strengthen our security, and improve our environment” and “Pitt and the Center for Energy are among our most active collaborative partners in this effort.”

Dennis Yablonsky, CEO of the Allegheny Conference on Community Development, added that “Pittsburgh is the new center of innovation in American energy.” Pitt’s Center for Energy has played a key role in these efforts, and we applaud the Richard King Mellon Foundation’s investment in enhancing the University’s capabilities.

With a such a strong record of impact — in education, in research, and in public service through economic development — and with testimonials like these, one might expect that the Commonwealth, too, would be stepping forward to say: “We really helped create something special when Pitt became a state-related university in 1966; there is no place that we are getting a higher rate of return on our appropriations; so, let us do the sensible thing and increase our investments in Pitt.”

That approach would be particularly consistent with a belief in “a future that embraces innovation in emerging frontiers of energy, life sciences, and biotechnology,” as described in the Governor’s inaugural address. It also would be consistent with the “certainty” expressed in that same document “that the best way to embrace innovation — the best way to make us competitive — is to make us competitive in education.”

It would be difficult to find many institutions with greater strengths in energy, life sciences, and biotechnology than the University of Pittsburgh. And in Pitt, Pennsylvania can claim, as one of its own public universities, an institution that already has established itself as a respected global competitor in both education and research.

Still, for the second successive year, Pitt, along with Pennsylvania’s other public research universities and public higher education more generally, is being asked to bear more than its fair share of the reductions required to balance the Commonwealth’s budget for the next fiscal year. The largest of the proposed cuts has been rather widely publicized — a 30 percent cut to our education and general appropriation, on top of the 19 percent cut already imposed last year.

In addition, the proposed budget would reduce our academic medical center lines by 10 percent, on top of the 50 percent cut already imposed last year.

This would reduce our appropriation, in absolute dollars, to levels that we have not seen since 1987, more than a quarter century ago. And today’s overall state budget is three times larger than it was then. Put another way, it would reduce our state support, if adjusted for inflation, to the lowest level of state support since Pitt became a state-related university.

It would not be the complete story, though. In late fall, our annual operational support was cut in half, from $40 million to $20 million. And in January, we were subjected to a midyear cut of 5 percent, or $7 million.

Finally, though little public attention has been paid to it, this budget proposal would quietly, but completely, eliminate the Commonwealth Universal Research Enhancement program — which was established more than a decade ago, during the administration of Governor Ridge and with the strong support of both houses of the Legislature. The CURE program, as it is known, was created by the Tobacco Settlement Act and committed a portion of the funds recovered to health-related research with the goal of improving the lives of current and future citizens of Pennsylvania.

CURE funding has supported thousands of good-paying, knowledge-based Pennsylvania jobs focused on the goal of improving future health. Using CURE proposals to fund research in scientific innovation will simply maintain the unsustainable status quo in health care.

To return to language already cited from last year’s inaugural address, it seems almost impossible to reconcile such a budgetary action with a vision for our collective future that has been tied to “innovation in emerging frontiers of energy, life sciences, and biotechnology.”

And there is every bit as hard to reconcile the more general budgetary approach being employed with what was the most inspiring passage from this year’s budget address — the declaration that “[w]e cannot allow the debts of today to crowd out the dreams of tomorrow.”

Building the best possible future, of course, depends directly upon two of our principal products — education and innovation. An approach to budget balancing built on record-setting cuts for public research universities, then, inevitably does sacrifice tomorrow’s dreams.

In 1831, during his American travels, Alexis de Tocqueville wrote this to a friend in Europe: “The effort made in this country to spread instruction is truly prodigious. The universal and sincere faith that they profess here in the efficaciousness of education seems to me one of the most remarkable features of America.”

Faith in education has been one of the distinguishing features of this country, and it is one of the forces that has helped drive America’s unparalleled record of sustained success. Certainly, the products of that faith have helped not only to shape our home region since the days of Hugh Henry Brackenridge but to positively reshape that region in the face of the challenges of the more recent past.

How tragically ironic it would be to see that long-term faith undermined by already budget builders held prisoner to short-term fiscal pressures in the year that brings the 225th birthday of both the structuring of our national government and the chartering of our University. But what better way to celebrate those historic anniversaries than by acting on that faith and working together to restore appropriate levels of support for public higher education — not only for our own good but, for the good of all who will follow… in the spirit of 1787.

Happy Birthday, to Pitt and to all who care about Pitt… including, of course, all of you.
The most thoughtful in a succession of state master plans, issued shortly after the creation of the State System of Higher Education, labeled Pitt, Penn State, and Temple as the “Commonwealth Universities” and described their expected contributions in the form of state-related universities...serve as the state’s major creation of the State System of Higher Education. The master plans, issued shortly after the institutions offer a broad range of educational programs and services and carry special responsibilities for research, graduate instruction, and for education in the professions, including law, medicine, engineering, business, and agriculture. The scope and quality of their programs and their geographic distribution permit them to serve the needs of the state and nation in the fields of undergraduate, graduate, and first professional education, research, and public service. Among the major independent universities in the state, the Commonwealth Universities are the principal centers for research and development in Pennsylvania.

Pitt’s performance in this assigned role has been nothing short of remarkable. The strength of our educational programs at all levels has made us a magnet for ambitious, hard-working, high-potential students from across the country and around the world. However, consistent with our public mission, we have attracted particularly large numbers of Pennsylvania students, increasing the likelihood that, over the longer term, they will live, work, and contribute here. We also have become an internationally respected center for pioneering research, ranking among the top universities in the world. The strength of Pitt in support attracted from the National Institutes of Health and among the top 10 American universities in total federal science and engineering research and development support. During the last fiscal year, our research expenditures exceeded $800 million—expenditures that are an accepted measure of institutional strength to fund important work, and support, directly and indirectly, more than 28,000 local jobs.

Though our service mission takes many forms in its public nature, there has been more important than the role that we play as an engine for economic growth and as a generator of jobs. We sit at the heart of the nation’s seventh-largest metropolitan area with 2.3 million people and many health care and education institutions that we describe as “supersector”—by far, Southwest Pennsylvanians largest employment sector and a source of what has been substantial and dependable job growth, a sector that has struggled to move through the “jobless recovery” from the Great Recession.

Given this impressive record of success, the Commonwealth’s current retreat from support for its public research universities must be viewed as very problematic by anyone concerned about the next generation of Pennsylvanians or about Pennsylvania’s next-generation economy. Extending last year’s pattern of reductions, these institutions—along with the other major public research universities—have been required to defund important work, and support, directly and indirectly, more than 1,000 Pitt staff jobs carrying average salary increases for most employees. We did not adopt either of those approaches. Instead, we worked to maintain employment levels—consistent with the still-rising demand for our services—while dealing with part of our deficit by delaying salary increases for most employees.

In his budget address, the Governor declared, “We cannot allow the debts of today to crowd out the dreams of tomorrow.” Unfortunately, it is hard to look at the cuts proposed for Pitt and Pennsylvania’s other public research universities without feeling that this is just what has happened—that dreams are being sacrificed in an effort to deal with current debt.

To be fair, the budget pressures faced by state government are daunting. Dealing with them can involve painful funding decisions, with success depending upon a spirit of shared sacrifice. And to be clear, Pitt never has resisted doing its fair share. What we must resist—not only for ourselves, but for the many who depend upon us—are disproportionately deep cuts that threaten Pitt’s ability to continue making critical contributions, either to deserving individuals or to a vibrant, more productive region.

After a past decade that brought cuts to our appropriation almost every year and a past year that brought the steepest cuts in our history, this year’s budget proposal contains reductions that would be even more devastating.

In his budget address, the Governor declared, “We cannot allow the debts of today to crowd out the dreams of tomorrow.” Unfortunately, it is hard to look at the cuts proposed for Pitt and Pennsylvania’s other public research universities without feeling that this is just what has happened—that dreams are being sacrificed in an effort to deal with current debt.
and general appropriation for the next fiscal year (on top of the 19 percent reduction suffered this year) and a 10 percent reduction to our academic medical center line items (on top of the 50 percent reduction suffered this year). This would be a blended reduction of about 29 percent (on top of a blended reduction of 22 percent suffered last year), totaling nearly $42 million. This budget proposal also would totally eliminate a long-standing and well-targeted program that has invested tobacco settlement revenues into health-related research. The dollar amounts flowing to Pitt have varied from year to year but have averaged more than $9.2 million annually over the course of the last 11 years and have been vital in building the research facilities that helped Pitt researchers attract record levels of external funding.

Diminished levels of state support stand as the primary contributor to rising public university tuition and its impact on access and affordability. Virtually everyone who has seriously examined these issues has fairly called for colleges and universities to do even more to control their costs in these challenging times but also has recognized that the key culprit is reduced state funding.

In his budget address, the Governor declared, “We cannot allow the debts of today to crowd out the dreams of tomorrow.” Unfortunately, it is hard to look at the cuts proposed for Pitt and Pennsylvania’s other public research universities without feeling that this is just what has happened—that dreams are being sacrificed in an effort to deal with current debt.

It might be said, in fact, that our basic activity is the business of building dreams. Pitt does that through the power of higher education as we help position tens of thousands of students, each and every day, to more effectively pursue the dreams that they have for their own lives. And we do it, often more dramatically, through our programs of research.

It might be said, in fact, that our basic activity is the business of building dreams. Pitt does that through the power of higher education as we help position tens of thousands of students, each and every day, to more effectively pursue the dreams that they have for their own lives. And we do it, often more dramatically, through our programs of research.
Chancellor Names Winners of Staff Awards for Excellence in Service

Each awardee will receive a $2,500 cash prize and have his or her name added to a plaque displayed in the William Pitt Union that is inscribed with the names of all recipients of the Chancellor’s Awards.

Continued from page 1

Panther assisting them with career planning, facilitating the Panther Game Plan Life Skills program, devotion of her personal development, and encouraging them to participate in community service,” Nordenberg wrote. Recently named one of Pittsburgh’s 30 Finest by the Cystic Fibrosis Foundation, Semiai is involved in a number of community service programs, including The Polite Way, which assists single mothers, Big Brothers and Sisters, and Get Involved, for which he serves as president. Writing in support of Semiai’s nomination, Tom Baker, founder of Get Port of Semiai’s nomination, as president. Writing in support of Semiai’s nomination, Tom Baker, founder of Get

Staff Excellence in Service to the University

Nordenberg, in his notification letter to Blais, wrote, “the committee was particularly impressed by the many ways in which you contribute to the success of others, including involving colleagues who do not report to you; helping GSPI students even after they have graduated; helping new faculty; attending doctoral committee meetings; and volunteering for numerous activities.” Blais was also commended for her significant contributions to the Staff Association Council (SAC), particularly her service as chair of the SAC Benefits Committee. The awards committee also noted Blais’s initiative, commitment, and ultimate success in establishing a lactation room in the Graduate School of Public Health—a facility now used by faculty and staff across campus. Her efforts led the Allegheny County Health Department to present the Graduate School with its Breastfeeding-Friendly Place Award in August 2011.

Brooks was commended by Nordenberg and the awards committee for his commitment to Pitt students and for consistently going “above and beyond” his duties, especially because of the amount of time, degree of enthusiasm, magnitude of accomplishments, and depth of personal connection he brings to his position.” The chancellor wrote that Brooks “has demonstrated an ability to communicate with students in a team-oriented environment in the workplace ….” Nordenberg also cited Brooks’s willingness to work late in the evenings and weekends. Nordenberg also cited Brooks’s work on projects that go well beyond his duties, such as reworking the University’s Out of the Classroom Curriculum. The chancellor wrote that he was impressed with Brooks’s ability to facilitate the Panther Game Plan Life Skills program, devotion of her personal development, and encouraging them to participate in community service,” Nordenberg wrote. Recently named one of Pittsburgh’s 30 Finest by the Cystic Fibrosis Foundation, Semiai is involved in a number of community service programs, including The Polite Way, which assists single mothers, Big Brothers and Sisters, and Get Involved, for which he serves as president. Writing in support of Semiai’s nomination, Tom Baker, founder of Get Port of Semiai’s nomination, as president. Writing in support of Semiai’s nomination, Tom Baker, founder of Get

Continued from page 2

Quantum Computing has Applications in Magnetic Imaging, Dutt-Led Research Shows

By B. Rose Huber

Quantum computing—considered the powerhouse of computational tasks—may have applications in areas outside of pure electronics, according to a University of Pittsburgh researcher and his collaborators.

Working at the interface of quantum computing and nanotechnology, Gurudev Dutt, assistant professor in Pitt’s Department of Physics and Astronomy in the Kenneth P. Dietrich School of Arts and Sciences, and his colleagues report their findings in a paper published online in the Dec. 18 issue of *Nature Nanotechnology.* The paper documents important progress toward realizing a nanoscale magnetic imager comprising single electrons encased in a diamagnetic crystal.

“Think of this like a typical medical procedure—a Magnetic Resonance Imaging (MRI)—but on single molecules or groups of molecules inside cells of the entire body,” says Dutt. Traditional MRI techniques don’t work well with such small volumes, so an alternative must be built to accommodate such high-precision work,” says Dutt.

However, a significant challenge arose for researchers working on the problem of building such an instrument: How does one measure a magnetic field accurately using the same device that encases the diamond crystal? Resonance defined as an object’s tendency to oscillate with higher frequency at a particular, or very high, frequency and occurs naturally all around us: for example, with musical instruments, children on swings, and pendulum clocks. Dutt says that resonances are particularly powerful because they allow physicists to make sensitive measurements of quantities like force, mass, and magnetic and electric fields: “But they also restrict the maximum field that one can measure accurately.”

In magnetic imaging, this means that physicists can only detect a narrow range of fields from molecules near the sensor’s resonant frequency, making the imaging process challenging.

“It can be done,” says Dutt, but “it requires very sophisticated image processing and other techniques to understand what one is imaging. One must use software to fix the limitations of hardware, and the scans take longer and are harder to interpret.”

Dutt—working with postdoctoral researcher Unmali Momen and PhD students Nusrat Nisran A&S’08 G), both in Pitt’s Department of Physics and Astronomy—has used quantum computing methods to circumvent the hardware limitation to view the entire magnetic field. By extending the field, the Pitt researchers have improved the ratio between maximum detectable field strength and field precision by a factor of 10,000. “This would have an immediate impact on our understanding of these molecules, materials, and cells in a noninvasive way, displaying where atoms are located without destroying them; current methods employed for this kind of study inevitably damage the sample.”

“This would have an immediate impact on our understanding of these molecules, materials, and cells in a noninvasive way, displaying where atoms are located without destroying them; current methods employed for this kind of study inevitably damage the sample.”

There are only the initial results, says Dutt, and there are further improvements to be made with additional research: “Our work shows that quantum computing methods reach beyond pure mathematics and potentially allow us to create better technologies,” says Dutt.

“Under Cynthia’s leadership, the University of Pittsburgh Press has grown and thrived. She has overseen the publication of more than 850 titles, the subscription of eight long-standing series, and the founding of six more, including world-renowned series in English composition, Latin American studies, creative writing, and the philosophy of science.”

Patricia E. Beebon

Cynthia Miller, Director of University of Pittsburgh Press, to Retire in 2013

Among Miller’s many honors is the prestigious Women’s National Book Association Book Women of the Year Award on the occasion of the association’s 70th anniversary recognizing top women in publishing, library science, literacy, and bookselling “who have made a difference” and being selected as one of only 10 university press representatives to be part of a 100-member United Nations Information Agency delegation to Moscow’s International Book Fair in 1987. Miller received her Bachelor of Arts degree in history from Virginia Polytechnic Institute and State University in 1973 and her Master of Arts in English from Duke University in 1975; she received a Managing Marketing Certificate from Catholic University’s Graduate School of Business in 1980.