

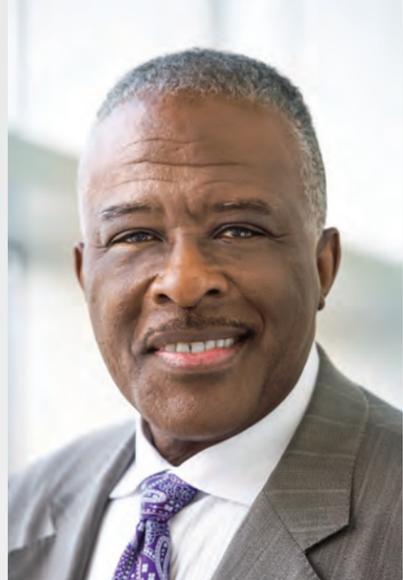
# UNIVERSITY AT ALBANY

State University of New York

# WORLDWIDE

2016 RESEARCH REPORT





President  
Robert J. Jones, Ph.D.



Vice President for Research  
James A. Dias, Ph.D.

## A MESSAGE FROM PRESIDENT ROBERT J. JONES AND VICE PRESIDENT FOR RESEARCH JAMES A. DIAS

As the University at Albany undertakes its largest academic expansion in 50 years, our research enterprise is front and center as a driver of innovation, knowledge and economic development. Our research programs are integral to strategic new colleges, academic programs and partnerships—and central to reaching the next level of excellence.

As a public research university, fulfilling our mission requires research and scholarship that address the significant challenges we face in our communities, across the nation and around the world. Reaching our vision requires even deeper engagement at the global level, driving us to strengthen our commitment to international research partnerships.

This report showcases the breadth of UAlbany's research portfolio. We excel in transdisciplinary research, cultivating faculty collaborations representing public policy, life sciences, law, education, atmospheric science and the humanities, among many other fields! Our positive impact ranges from strengthening democratic processes in Kenya, to developing early warning systems for extreme weather, to applying business expertise to social enterprises. It features unique interdisciplinary approaches such as the "Picturing the Anthropocene" project, which bridges art and science to represent the impact of human activity on the ecosystem.

Using creative and cutting-edge techniques, our student researchers join their peers as effective, informed citizens who approach societal problems with an interdisciplinary research approach. These students are poised to become leaders in their communities and in their fields—and to navigate the complex cultural, geographic and social dynamics in this age of globalization.

Meanwhile, new stories are unfolding. Earlier this year, UAlbany announced an unprecedented \$10 million National Institutes of Health endowment grant to address health care disparities in minority and underserved communities. This prestigious award recognizes the University's significant capacity for multidisciplinary work in this area, which involves six of our colleges and schools and more than a dozen community partners.

The projects featured in this report truly represent UAlbany's aspiration to emerge as a leading public research university. We will continue to leverage our extraordinary people and facilities to create new synergies, deepen partnerships, and steward public and private investments to create a better future for all. //

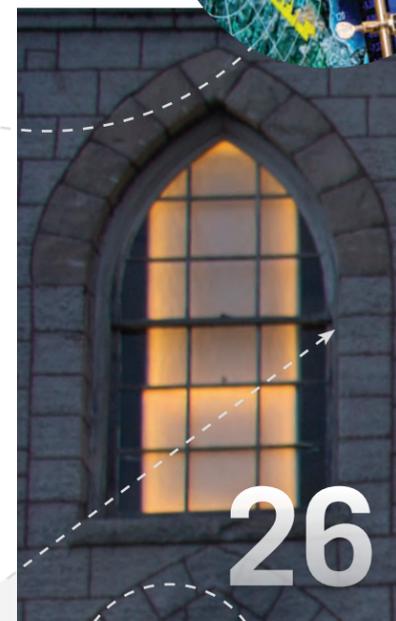
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# POWER TO THE PEOPLE

*A man stands outside of his village, Nairobi, Kenya*

For more than 15 years, the University at Albany Center for International Development (CID) has established a trusted partnership with Kenya, collaborating with donors and stakeholders to design customized programs that enhance Kenya's government.

Building on that foundation, CID is now working to strengthen Kenya's representative institutions at the national level to help devolve power to 22 of Kenya's county governments. The goal is to give unprecedented empowerment to Kenya's citizens by increasing transparency, accountability and effectiveness in service delivery and responsiveness.

To address this goal, CID developed "Agile and Harmonized Assistance to Devolved Institutions (AHADI)." The project coordinates county executives and assemblies with up to twelve of the country's national ministries, its national senate and other authorities.

"We provide training and technical advice on myriad government processes, such as county planning, financial management and human resources policies," said Andrea Wolfe, CID senior associate and head of the AHADI project. "We support ministries and local governments in order to improve sector policies, including water issues and livestock management in Kenya's arid regions, revenue generation for cities and counties, and education sector reforms."

With \$49 million in funding from the United States Agency for International Development (USAID), AHADI has trained more than 2,500 county and 500 national ministry officials, developed and reviewed 30 key devolution policies and bills, presented dozens of fiscal decentralization workshops, and provided extensive program-based budgeting training to county treasurers.

*The goal is to give unprecedented empowerment to Kenya's citizens by increasing transparency, accountability and effectiveness in service delivery and responsiveness.*

Working with the Kenyan Senate was key to addressing issues affecting the people.

"The Senate has a mandate to represent the interests of Kenya's 47 county governments, and this requires effective interaction and mechanisms for providing feedback between it and the 47 county governments," said

Wolfe. "To facilitate this, we helped the County Assemblies Forum establish a system that allowed it to review and contribute to eleven Senate bills, dealing with such issues as early childhood education, natural resources and benefit sharing, and community land, among others — leading to concrete proposals for the revision."

Among AHADI's profound achievements:

- Mombasa County has unbundled functions of its county managers, allowing it to more efficiently address areas within education, children's issues and the environment;

- Nairobi County's assembly established a Junior Leadership Fellows Internship Program;

- Isiolo County, in need of sound legislation to guide the process of devolving water services, was assisted by AHADI experts in articulating and drafting a new water policy and bill, and

with the coordination of a validation meeting to review and finalize the draft; and

- Convening a consultative workshop on Kenyan curriculum reform review through the Kenyan Ministry of Education Science and Technology for the Editors Guild and national education reporters.

AHADI has contributed to grants management, facilitated meetings with USAID to add institutional and capacity development needs for Kenya, and filled a deficiency in human resource administration. Its people have also created a Devolution Study Group to foster frank and open discussions among AHADI officials and representatives from national and county, civil society and academia. //



*City Hall, Nairobi, Kenya*



*Gina Volynsky, director of the CID*

# A NEW LEADER FOR CID

When it comes to the intricate global work administered by the Center for International Development (CID), a dynamic leader is an essential piece of the puzzle.

Gina Volynsky, a 25-year veteran in international development, is the new director of CID — overseeing its operation of field offices on five continents and \$300 million in international development projects.

"I joined CID in 2016 because it is one of the most established university-based international development organizations working globally, with an excellent reputation and an amazing team," said Volynsky.

During the course of her career, Volynsky has designed and implemented programs in more than 29 countries, working with donors such as the U.S. Agency for International Development (USAID), the World Bank, the U.N. Development Programme and the Bill & Melinda Gates Foundation.

Prior to joining CID, Volynsky served as vice president at Dexis Consulting, leading the firm's institutional support contract for the USAID Global Development Lab's Center for Transformational Partnerships.

"With tremendous experience in Washington and USAID, Gina is uniquely positioned to lead CID's efforts to expand its development portfolio and uphold UAlbany's commitment to excellence in international education, cross-cultural exchange, and sustainable development," said Vice President for Research James A. Dias. //



# BUILDING A BETTER MODEL

*Alishan National Scenic Area, Taiwan*

While atmospheric scientists continually seek to improve weather prediction models, measuring the costs of extreme weather events is a much more challenging endeavor.

Flooding impacts 96 million people globally. In the U.S. alone, it causes around 89 fatalities and costs about \$13.7 billion annually. Thus, accurate prediction of intense rainfall continues to be a critical scientific challenge and there remains a substantial need to better understand the decision-making risk and response during extreme events.

To address this challenge, U.S. Senators from New York Charles E. Schumer and Kirsten Gillibrand announced that the University at Albany would receive approximately \$4.5 million in federal funding. The University's Atmospheric Sciences Research Center (ASRC) knew what needed to happen to *conquer* this challenge: develop better methods for quantifying trends in weather extremes on a much larger scale than current models provide.

The funding, allocated through the National Science Foundation Partnerships in International Research and Education (PIRE) program, supports a U.S.-Taiwan consortium to conduct research in early warning systems and better predict the path and course of major storms.

With a focus on East Asia and the Northeastern U.S., ASRC is leading an academic research coalition that includes Howard University, National Central University (Taiwan), National Taiwan University and Academia Sinica (Taiwan). ASRC is also working closely with disaster and weather forecast agencies in Taiwan and the U.S., such as the National Oceanic and Atmospheric Administration's National Weather Service and National Severe Storm

Laboratory, the New York State Division of Homeland Security and Emergency Services, the Central Weather Bureau – Taiwan, and the National Science and Technology Center for Disaster Reduction – Taiwan.

*“We need to increase the resiliency of communities by decreasing vulnerability and exposure through better disaster management and adaptation.”*

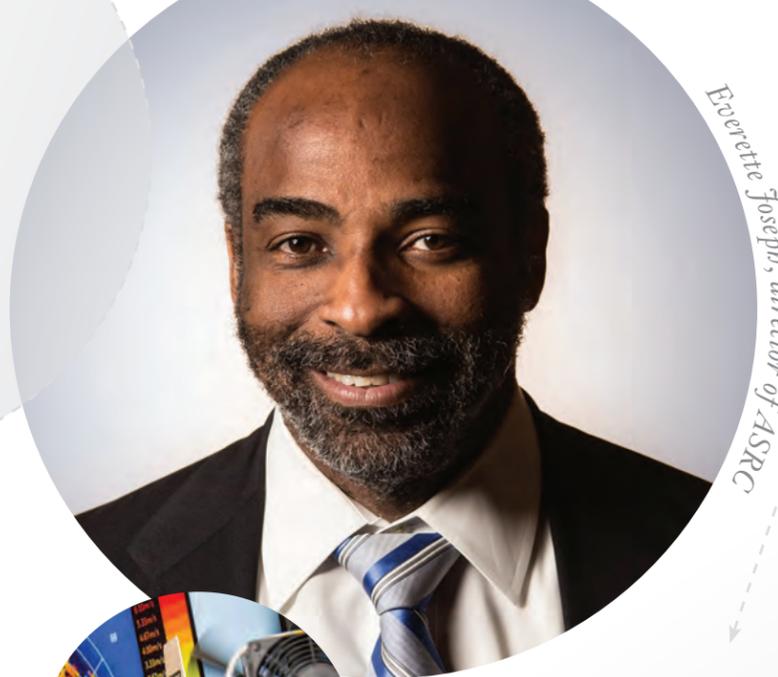
ASRC is taking a multi-pronged approach through the U.S.-Taiwan PIRE Consortium. “We need to increase the resiliency of communities by decreasing vulnerability and exposure through better disaster management and adaptation,” said Dr. Everett Joseph, director of ASRC. “Through this partnership, we are striving to better quantify trends in weather extremes through in-depth investigations of past events and influences from large-scale global circulation patterns and changes in local environmental conditions.”

The critical tools are in development, underscored by the state-of-the-art New York State Mesonet system.

“Once fully deployed, Mesonet will allow us to dramatically improve real-time monitoring of events and short-term prediction,” said Dr. Joseph. One hundred twenty-five stations are expected to be completed and online by year-end 2016.

In addition, educating the next generation of climate scientists specializing in decision-making and probabilistic forecasting is a key goal. To that end, ASRC and UAlbany’s Department of Atmospheric and Environmental Sciences (DAES) are engaged in recruiting undergraduate, graduate and post-doctoral researchers to the PIRE project. The project will provide training and integrate the research gathered through the U.S.-Taiwan project.

“Extreme weather resiliency demands improved weather and climate prediction and response



*Everett Joseph, director of ASRC*



*Mesonet Schuylerville Tower*



strategies to strengthen the protection of life and property,” said Dr. Joseph. “The U.S.-Taiwan partnership will prepare a new generation of U.S.-Taiwanese atmospheric and social scientists and practitioners with disciplinary and interdisciplinary academic and research experiences geared around extreme weather and resiliency.” //



*Cidny Ramirez, UAlbany sophomore*

# LOVE AT FIRST STORM

When six-year-old Cidny Ramirez came to the U.S. in 2002, she fell in love with the turbulence of weather.

“We don’t have much in terms of severe weather in my native Columbia, so the first time I saw images of tornadoes and hurricanes, I was mesmerized,” said Ramirez, a UAlbany sophomore with a double major in atmospheric sciences and Chinese Studies.

In 2014, as a senior at the Bronx High School of Science, Ramirez won an award from the American Meteorological Society — which is why it came as little surprise that UAlbany was at the top of her list of colleges. Ramirez plans to travel to Taiwan to work on the PIRE U.S.-Taiwan consortium. For her, it’s an opportunity to not only increase her Chinese proficiency, but also expand her knowledge of atmospheric sciences.

Ramirez is the first of a cadre of students participating in the PIRE project, which will ultimately include undergraduates, graduates and post-doctoral researchers. Ramirez hopes to continue her studies by pursuing a master’s degree and Ph.D. in either atmospheric sciences or Chinese Studies. //

# INVESTING IN UALBANY. INVESTING IN THE FUTURE.



EMPIRE STATE PLAZA  
DEDICATED TO  
THE PEOPLE OF NEW YORK  
NOVEMBER 21, 1973  
NELSON A. ROCKEFELLER

*David Hochfelder, Empire State Plaza, Albany, NY*

Following a commitment by President Robert J. Jones to increase externally funded research, the University has advanced a more aggressive internal awards program to support its researchers through both seed funding and continuous investment. In 2015-16, these endeavors included the Presidential Initiatives Fund for Research and Scholarship (PIFRS), the Collaborative Venture Fund and the Faculty Research Awards Program (FRAP).

PIFRS aims to stimulate new cutting-edge, interdisciplinary research in areas, such as the Life Sciences, Liberal Arts and Humanities, Advanced Data Analytics, and Forensic Science and Cybersecurity. The awards combined provide approximately \$500,000 in support. Historian and faculty member David Hochfelder benefitted in late 2014 when he received the PIFRS to support his “98 Acres in Albany” project. The multimedia effort takes an intensive look at the most transformative change in the history of New York’s state capital since its founding in 1624.

Through a blog and GitHub sites, Dr. Hochfelder and his team tell the story of New York’s appropriation of 98 acres of established neighborhoods in the heart of downtown Albany in order to construct the Empire State Plaza. Still considered controversial, the project demolished 1,200 buildings and displaced about 8,000 people, and now

houses several state government agencies.

“We’ve used the PIFRS funding to collect data and test out its presentation on a digital map using two sample downtown blocks, and to continue to expand our on-line presence through our blog,” said Dr. Hochfelder.

The digital GitHub map, created by Chris Rees, a UAlbany research scientist, opens up to buildings that existed before demolition and depicts names of residents, businesses and business owners.

*“What we believe this project can do, by bringing these streetscapes back to life, is inspire other researchers to do similar projects, documenting what American cities were like before Urban Renewal demolished so many neighborhoods.”*

“What we believe this project can do, by bringing these streetscapes back to life, is inspire other researchers to do similar projects, documenting what American cities were like before Urban Renewal demolished so many neighborhoods,” Dr. Hochfelder said.

“98 Acres” is just one of 14 UAlbany faculty research projects awarded by the PIFRS program.

The Collaborative Venture Fund rewards joint efforts of faculty from UAlbany and Albany Law School, and involved 44 faculty in its inaugural year of 2016. The initial projects included the development of a human rights research agenda, the collaboration of students on experiential learning to tackle local urban blight, a legal history roundtable and public discussion series,

and a conference examining how violence and injustice occur both within and outside legal institutions.

The Faculty Research Awards Program awarded 39 faculty members up to \$10,000 to support their research and creative efforts in the STEM fields and the

humanities. These projects included computationally designing nucleic acid probes for the detection of tumor-specific MicroRNAs, an in-depth intellectual history of liberal internationalism, a study of 3D tracking visualization from surveillance videos, and a comprehensive look at journalist censorship in Vietnam. //



*Maria Pidgeon, associate director for Innovate 518*

# INNOVATING THE INNOVATORS

UAlbany’s ongoing efforts to forge economic development in the Capital Region took a major step forward with the hiring of Maria Pidgeon as its associate director for Innovate 518.

Innovate 518 is a New York State-designated “Innovation Hot Spot” led by UAlbany. It aims to help small technology-based Capital Region businesses with solid growth potential establish a solid foundation. The program does so by providing access to incubators that offer mentorship, business services and strategies for obtaining new capital. It also supports student entrepreneurial opportunities.

In 2014, UAlbany was awarded \$250,000 per year for three years from the Empire State Development to develop Innovate 518. Currently, the University is partnering with Rensselaer Polytechnic Institute and the Center for Economic Growth on the initiative to determine the best hot spot locations for the region.

Pidgeon’s prior experience has her feeling right at home as Innovate 518’s leader. Prior to taking the position at UAlbany, she served as a senior economic developer for the City of Albany and was the director of a College of St. Rose program promoting entrepreneurship through academic-business collaboration. //



*Yvonne Harrison, assistant professor*

# STRONGER MANAGEMENT, HIGHER PERFORMANCE

Whether it's confronting out-of-control spending or creating a strategic vision, one of the most important requirements for nonprofit organizations is effective leadership. A critical element in providing effective leadership is the organization's governing board. Rockefeller College of Public Affairs & Policy Assistant Professor Yvonne Harrison has spent more than a decade exploring the leadership role and performance challenges of governing boards.

"Very often board members have many ideas about what is working and what might be done better," said Dr. Harrison. "One of the best ways to stimulate change and tap the potential for board members to contribute to improving performance is to have them complete a well-designed and well-tested questionnaire covering all facets of board operations."

To address improvement in performance, Dr. Harrison and her colleague, Professor Vic Murray of the University of Victoria, created BoardCheckup.com, a one-of-a-kind online theory-based self-assessment tool for nonprofit board members and those who collaborate with the board on a regular basis. When

the results are summarized and analyzed, they provide an excellent basis for learning and board development.

Their project is the subject of a SUNY Open Textbook and forms the basis of a series of Massive Open Online Courses (MOOCs). Drs. Harrison and Murray developed these courses with the aid of a SUNY Innovative Instructional Technology Grant, as well as support through the UAlbany Provost's Office of Online Teaching and Learning. Their goal is to increase access to nonprofit education, extend their research and educate boards about the leadership and governance of nonprofit organizations.

Last year alone, more than 15,000 people from 188 countries signed up for "Improving Leadership and Governance in Nonprofit Organizations," indicating a global market and demand for nonprofit leadership education. In 2016, the MOOC was transformed

into a series of smaller on-demand courses that generate enough revenue to support Dr. Harrison's nonprofit leadership research, education and service agenda. Her work is recognized for both the economic impact of her scholarship and the deep positive effect on the nonprofit sector made by the technology upon which she based her work.

On the service front, Dr. Harrison was also part of a group that received a UAlbany President's Award for Exemplary Community Engagement for the "Emerging Issues in the Nonprofit Sector Seminar Series." The collaboration, inaugurated in 2012 by UAlbany's School of Social Welfare, School of Public Health, School of Business and

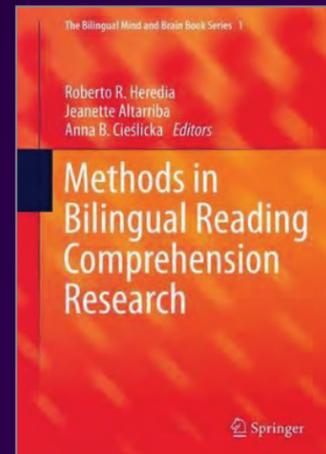
Rockefeller College, advances and explores issues confronting the nonprofit sector. Dr. Harrison has since joined with Rose Mary Bailly, executive director of the Government Law Center at Albany Law School, to expand the series and lead a conversation to further develop leadership and governance within the Nonprofit Law Synergy Group.

UAlbany will also launch a new Interdisciplinary Institute of Nonprofit Leadership and Community Development that will begin with a University-community forum coordinated by Dr. Harrison. //



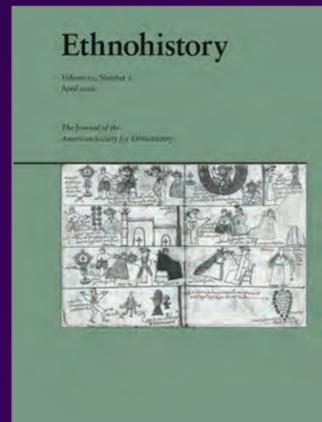
# FACULTY PUBLICATIONS SHOWCASE

JEANETTE ALTARRIBA



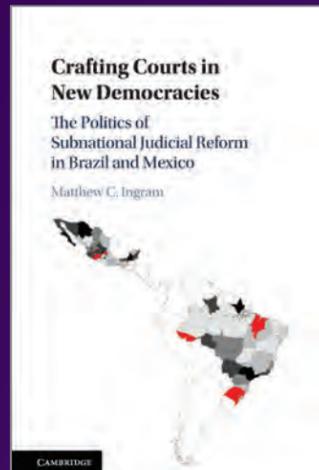
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LOUISE BURKHART



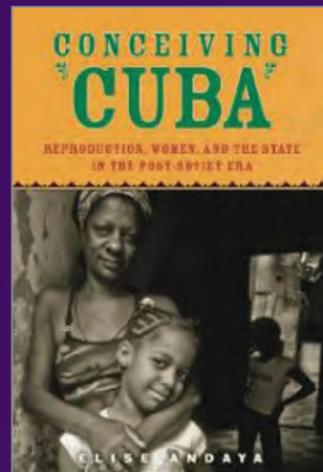
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MATTHEW INGRAM



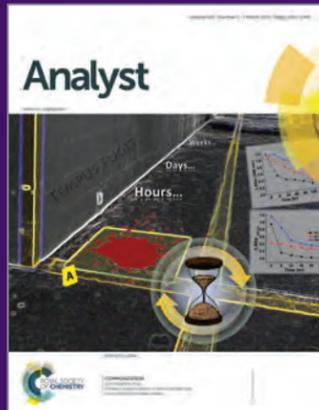
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ELISE ANDAYA



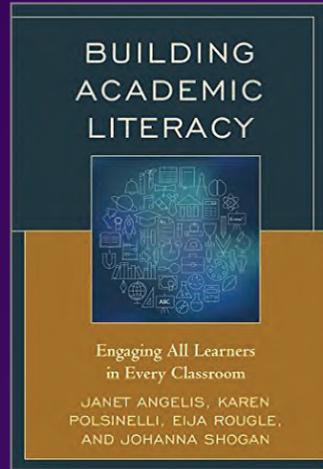
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JAN HALAMEK



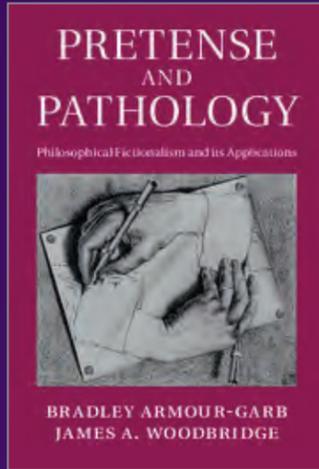
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JANET ANGELIS



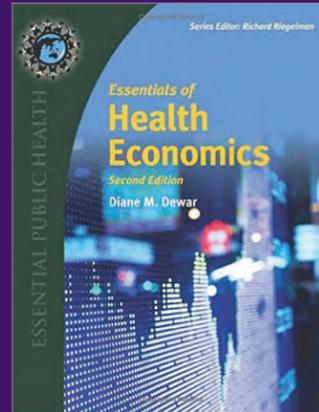
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BRADLEY ARMOUR-GARB



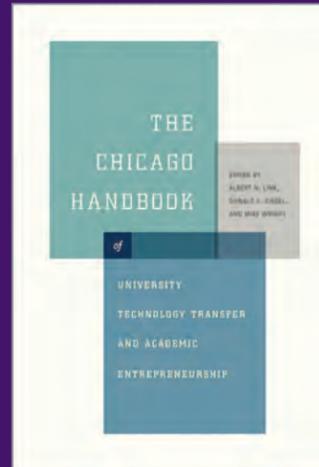
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DIANE DEWAR



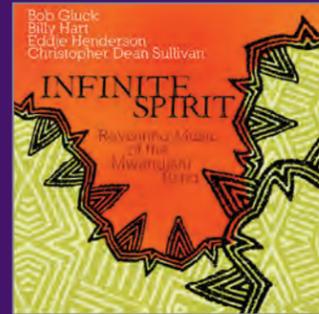
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DONALD SIEGEL



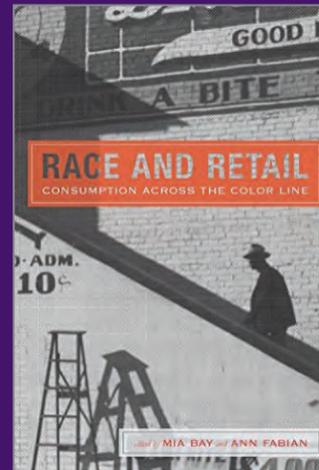
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BOB GLUCK



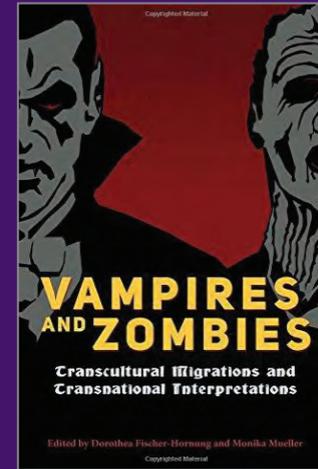
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JOHANA LONDONO



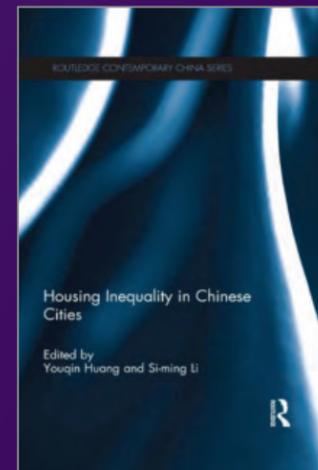
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CARMEN SERRANO



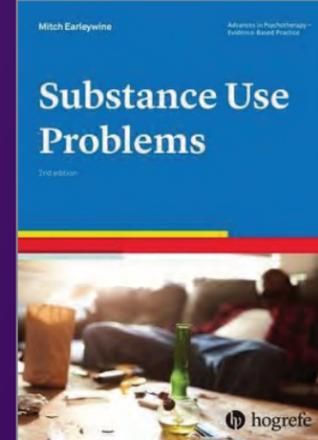
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YOUQIN HUANG



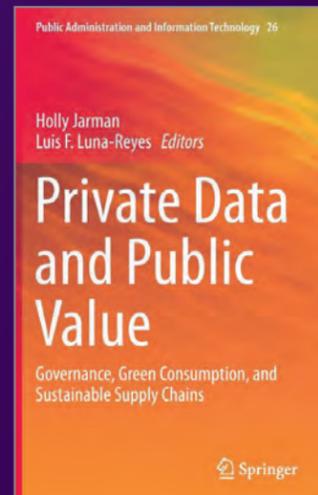
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MITCH EARLEYWINE



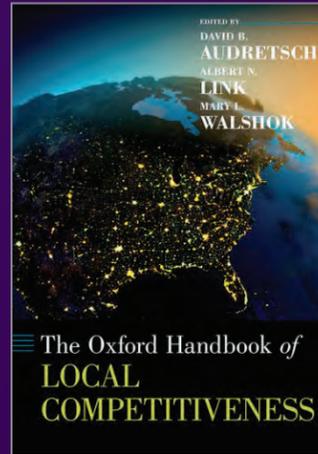
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LUIS F. LUNA-REYES



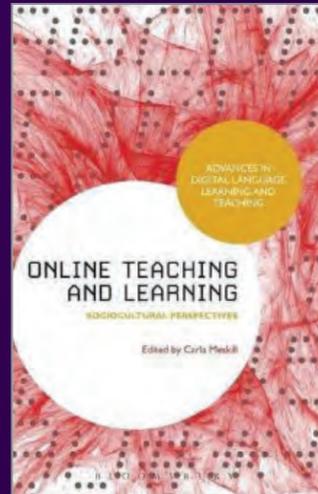
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PAUL MIESING



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CARLA MESKILL



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# DECODING ALZHEIMER'S

*a*t UAlbany's RNA Institute, Professor Igor Lednev and two students from Puerto Rico are working to unlock the secrets of a protein with no supportive role in human health. Why? Because it just might be the key to understanding Alzheimer's disease and its devastating impact on the brain.

The battle facing families coping with Alzheimer's disease is daunting. As the progressive illness destroys the memories of victims, those left behind struggle with caring for loved ones who slip further away with each passing day. With more than three million new cases each year in the U.S. alone, the disease still has no cure.

Lednev and doctoral students Tatiana Quiñones-Ruiz and Manuel F. Rosario-Alomar are working to decode amyloid fibrils — extracellular protein deposits found in organs and tissues that, unlike other fibrous proteins, have no supportive role in human health.

"Amyloid fibrils are instead found in patients suffering from Alzheimer's or Type 2 diabetes — diseases associated with high morbidity and mortality," said Dr. Lednev.

Researchers hope that unlocking the chemical properties of amyloids may lead to a better understanding of Alzheimer's and its profoundly devastating impact.

Through the National Institutes of Health (NIH) developmental program, Research Initiative for Scientific Enhancement (RISE), Dr. Lednev is providing research opportunities to Quiñones-Ruiz and Rosario-Alomar, who are from the University of Puerto Rico (UPR), Mayaguez.

The collaboration has already led to an article in the Journal of Physical Chemistry on the role of hydrogen sulfide as an inhibitor of amyloid formation. Lednev and his students are now developing a manuscript reporting on the discovery of purple amyloid fibrils, a new type of colored protein aggregate.

Based on the success of the venture to date, UPR Mayaguez is working on a grant renewal through NIH. //



*Igor Lednev, professor of Chemistry*



*Doctoral students Manuel F. Rosario-Alomar and Tariana Quiñones-Ruiz from the University of Puerto Rico work in Igor Lednev's lab.*

# RESEARCH BEYOND BORDERS

During the past two decades, there has been a significant increase in higher educational institutions extending their academic programs across geopolitical borders.

At UAlbany, researchers Kevin Kinser, associate professor and chair of the School of Education Department of Educational Administration and Policy Studies, and Jason Lane, associate professor and SUNY vice provost for Academic Planning and Strategic Leadership, are working to better understand both the success stories and the challenges facing these international collaborations. Their Cross-Border Education Research Team (C-BERT) studies this phenomenon from an organizational, sociological, economic and political perspective.

“Distinct from strictly virtual or online education, C-BERT concentrates on instances of physical cross-border teaching and research activities,” said Kinser.

These broad interests inform more specific inquiries into regulation, accountability, quality assurance, institutional legitimacy, patterns of growth and institutional failures, among other topics. C-BERT does not promote or represent specific institutions, sectors or national systems engaged in cross-border higher education. Rather, the mission is to advance the understanding of these issues through the discovery, analysis and dissemination of knowledge. In turn, this research aims to inform institutional development, as well as public policy and discussion.

In 2015, C-BERT was honored with the Award for Significant Research on International Higher Education by the Association for the Study of Higher Education’s (ASHE) Council for International Higher Education. Established in 2013, this annual award is presented at the ASHE conference to spotlight state-of-the-art research and scholarship. //



*Kevin Kinser, associate professor and Educational Administration and Policy Studies department chair*

*Jason Lane, associate professor and vice provost for Academic Planning and Strategic Leadership*

# HEALTH MATTERS



*Azadi Tower, Iran*

*From impassioned U.S. political rhetoric to conflict zones in the Middle East, the belief that health care is a human right is a contentious debate rather than a universal standard.*

The University at Albany and its affiliated partner, Albany Law School, have joined forces to change the way we understand and work with international health laws.

The institutions are creating an online, distance-education program for Middle Eastern trainees in fields related to law, health and civil society. The project will merge critical concepts from international human rights and health laws to provide programs addressing the unique and complicated health needs facing the Middle East.

Since announcing a stronger affiliation in October 2015, UAlbany and Albany Law School secured a \$1.6 million, two-year grant from the U.S. Agency for International Development (USAID). This partnership clearly demonstrates the impact of the University's faculty collaborations to leverage federal funding and influence critical areas of law and public policy on an international level.

The project is driven by the University's Global Institute for Health and Human Rights (GIHHR), established in 2012 by renowned human rights activists Drs. Kamiar Alaei and Arash Alaei. The Alaei brothers are from western Iran and have devoted their careers to global issues surrounding health and human rights.

The Institute was designed to generate a deeper understanding of the connections between health and human

rights, and create innovative solutions for the challenges of that intersection.

GIHHR manages various international projects in the areas of drug policy, environment, international health law, criminal justice, HIV/AIDS prevention and care, human rights advocacy, research and health policy. It strives to be interdisciplinary in both the analysis of global health issues and in the approach to addressing them.

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*The Institute was designed to generate a deeper understanding of the connections between health and human rights, and create innovative solutions for the challenges of that intersection.*

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The Institute offers courses and programs in Minorities Access to Health, Health of Refugees and Migrants, Women's Health, HIV/AIDS and IDUs (Injecting Drug Users), and Right to Physical and Mental Health. The Insti-

tute's staff comprises a mix of UAlbany and Albany Law School faculty and visiting professors from schools across the nation.

Along with UAlbany, Albany Law and USAID, international scholars from McGill and Oxford universities are participating in the project.

In May 2015, Dr. Kamiar Alaei was awarded the Ellis Island Medal of Honor. Founded by the National Ethnic Coalition of Organizations, the award pays

homage to the immigrant experience and the contribution made to America by immigrants and their children. Additionally, the Iranian brothers' work

has been praised by the World Health Organization. //

*Dr. Kamiar Alaei and Arash Alaei*



## MISSION: INTERNATIONALIZATION

With identical goals and the desire to synergize efforts and resources, Global Institute for Health and Human Rights (GIHHR) joined the Center for International Education and Global Strategy (CIEGS).

This collaboration has been a driving force for UAlbany's internationalization efforts, which entails building a truly global campus in teaching, research and strategic engagements.

Leading this impressive effort is Dr. Harvey Charles, UAlbany's new dean for International Education and vice provost for Global Strategy.

Dr. Charles comes to the University from Northern Arizona University where he served as vice provost for International Initiatives and director of the Center for International Education. He has also served in senior international education leadership roles at Georgia Institute of Technology, San Francisco State University, Wheaton College and the University of Nevada, Reno.

"One of my goals is to build a comprehensive approach to campus internationalization," said Dr. Charles. "It is essential to give internationalization greater visibility and achieve the potential in this arena that is possible for the institution. Only a few weeks into my tenure at UAlbany, I came to learn more about GIHHR and the amazing work that its directors, Kamiar and Arash Alaei, have been doing. At the heart of the challenge is that the work being done by the Institute is interdisciplinary in nature, but also on a global scale." //

*Harvey Charles, dean for International Education and vice provost for Global Strategy*



# AWAWARENESS AS ART

Two current University at Albany art projects, “Breathing Lights” and “Future Perfect: Picturing the Anthropocene,” highlight the critical importance of research to the creative arts and the University’s strong connection to the local arts community.

“Breathing Lights,” one of four winners in the nationwide Bloomberg Philanthropies Public Art Challenge, is the brainchild of lead artist Adam Frelin, an associate professor in UAlbany’s Department of Art and Art History, and lead architect Barbara Nelson, American Institute of Architects (AIA).

The Challenge provides up to \$1 million over two years for temporary works that celebrate creativity, enhance urban identity, encourage public-private partnerships and drive economic development. More than two dozen local public and private partners are supporting the project. The award is a major success for the Capital District’s art scene.

During the hours of 6:00 p.m. and 10:00 p.m. in October and November 2016, “Breathing Lights” will illuminate roughly 300 empty buildings in the Upstate New York tri-city area, encompassing Albany, Schenectady and Troy. The lights will dim and glow to emulate the breathing of a living being. The installation aims to regenerate interest in once-vibrant neighborhoods that now have high vacancy rates. Once the project is uninstalled, most of the buildings will be up for sale.

*Adam Frelin, associate professor of Art and Art History,  
“Breathing Lights,” Albany, NY*

The University is acutely attuned to the issue of urban blight, as its Center for Technology in Government is also leading a partnership with the cities of Schenectady, Troy, Albany and Gloversville to target urban blight. Together, the teams will examine code enforcement information needs throughout the region in order to support the development of programs to address the issue. This two-year effort is funded by the New York State Department of State's Local Government Efficiency Program.

"Future Perfect: Picturing the

Anthropocene," a University Art Museum exhibition that bridges art and science, will bring more than 10 artists to the University this year to showcase artwork dealing with climate change. "Anthropocene" relates to or

academic programs from July 12 - December 10, 2016.

At the core of the project is the concept that research is critical to artistic and curatorial practice. Exhibition co-curators seek to open up these processes and

JoAnne Carson re-installs part of the exhibition, recontextualizing work to reveal new patterns of thinking that form a counterpoint to the exhibition as originally configured.

"Future Perfect" posits that beneath the chaos of contemporary life, artists envision and protect a fragile, complicated interior space in which visual and poetic forms might help us unravel and accept the reality of a world – and an epoch – characterized by the effects of our presence.

The exhibition is co-curated by artist and Associate Professor of Art Daniel Goodwin, Art Museum Director Janet Riker and Associate Director/Curator Corinna Ripps Schaming.

As part of the project, Goodwin will offer an undergraduate studio art class based on "Future Perfect." The exhibition will serve as a leaping off point for assigned readings, conversations, and studio production.

Preliminary research for the "Future Perfect" project was funded with seed money from the Presidential Initiatives Fund for Research and Scholarship. //

*At the core of the project is the concept that research is critical to artistic and curatorial practice.*

denotes the current geological age, viewed as the period during which human activity has been the dominant influence on climate and the environment.

This ambitious project includes an exhibition, print and web publications, and related public and

make them transparent for students and audiences.

Artists Colin C. Boyd, Dana Hoey, Alexander Ross and Miljohn Ruperto/Ulrick Heltoft are creating new work or new configurations of existing work for the exhibition.

Boyd, who will create a studio in a section of the Museum's exhibition space, will work in the Museum over the summer to create a stop-motion animation video based on his small herd of robotic, prehistoric mammals as they wander a table-top futuristic landscape. The Museum will be transformed when Professor of Art and Guggenheim Fellow

# FURTHERING THE CAUSE

UAlbany School of Business Professor Paul Miesing has opened a new center aimed at promoting and improving social enterprises.

CAUSE, or the Center for Advancement and Understanding of Social Enterprises, serves as a hub for entrepreneurs who are interested in using business to meet societal and environmental needs. Through the Center, Dr. Miesing has developed an advisory council of prominent local executives to mentor small social enterprise owners. He is also working with UAlbany students to develop start-up companies.

Outside of mentorship, CAUSE is advancing educational initiatives. Dr. Miesing has led the development of a UAlbany and Albany Law School joint degree program in social entrepreneurship. He's also creating a study abroad course where UAlbany students will assist social enterprises in other countries.

CAUSE plans to advance its mission through a variety of workshops, forums and conferences. Earlier this year, he teamed up with the School of Social Welfare to co-host the University's third "Forum on Social and Economic Development." It specifically focused on developing Cuba, with a presentation by Lourdes DeUrrutia from the University of Havana. //



*Paul Miesing, professor of Business*

*left to right: Janet Riker, Daniel Goodwin, Corinna Ripps Schaming*





# LAUNCHPAD LIFTOFF

In October 2015, the Blackstone Charitable Foundation announced the expansion of its Blackstone LaunchPad entrepreneurship program to five New York State universities, including the University at Albany.

New York's Blackstone LaunchPad initiative also includes Cornell University, New York University, Syracuse University and the University at Buffalo — all partnering on a three-year, \$4.5 million grant.

UAlbany officially opened the program's physical space in the University's Campus Center just three months later.

Through the program, UAlbany's 17,300 students, plus faculty and staff, are given access to individualized coaching as well as seminars and training sessions related to building their own businesses. Interested students are required to write business plans, complete financial analyses and design marketing campaigns. In addition, the LaunchPad platform matches students with venture or angel funding by creating forums for investors to entertain student entrepreneur pitches. Students will also be teamed with external mentors and matched with business incubators to launch commercial ventures.

The program held its first business plan competition on campus in April 2016, teaching student entrepreneurs how to pitch their ideas to potential investors. The competition, which was held in UAlbany's Massry Center for Business, invited angel investors and venture capitalists to judge presentations from 35 UAlbany student teams. Winners were awarded cash prizes totaling \$30,000.

With a physical presence on the five university campuses and access to the Blackstone LaunchPad Global Network Technology Platform, over the next five years the program has the potential to generate approximately 4,000 new ventures and 6,000 new jobs across New York. //



Rabi Musah,  
associate professor of Chemistry



Doug Conklin, associate professor of  
Biology and Biomedical Science

# FROM MARKET NEED TO MARKET-READY

Two UAlbany researchers are turning their inventions into market-ready technologies, thanks in part to investments from the Technology Accelerator Fund (TAF).

Funded by the State University of New York (SUNY) and the Research Foundation, TAF bridges funding gaps for SUNY researchers. The program invests in faculty who demonstrate the commercial potential of their idea or innovation. The goal is to increase attractiveness to potential investors.

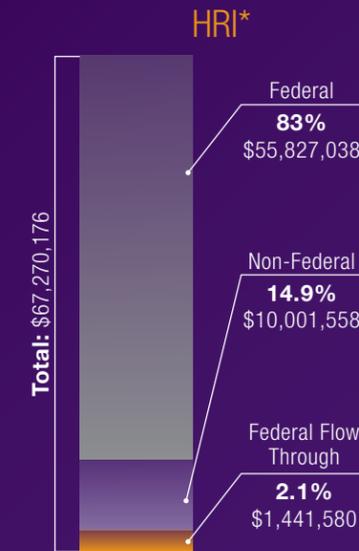
Associate Professor of Biology and Biomedical Science Doug Conklin and Associate Professor of Chemistry Rabi Musah both recently received TAF funding. Dr. Conklin was awarded for identifying Bruton's Tyrosine Kinase as a potential novel drug target for breast cancer treatment, while Dr. Musah was recognized for developing a gel electrophoresis dye sensor and controller, which helps with the process of analyzing biomolecular materials such as proteins and nucleic acids.

Since launching in 2011, TAF has invested over \$1.5 million to successfully advance the commercial readiness of a number of SUNY-developed innovations. The program has also secured an additional \$3.5 million from external partners, including federal agencies, industry licensees and angel investors. //

# INVESTMENTS & IMPACTS 2015

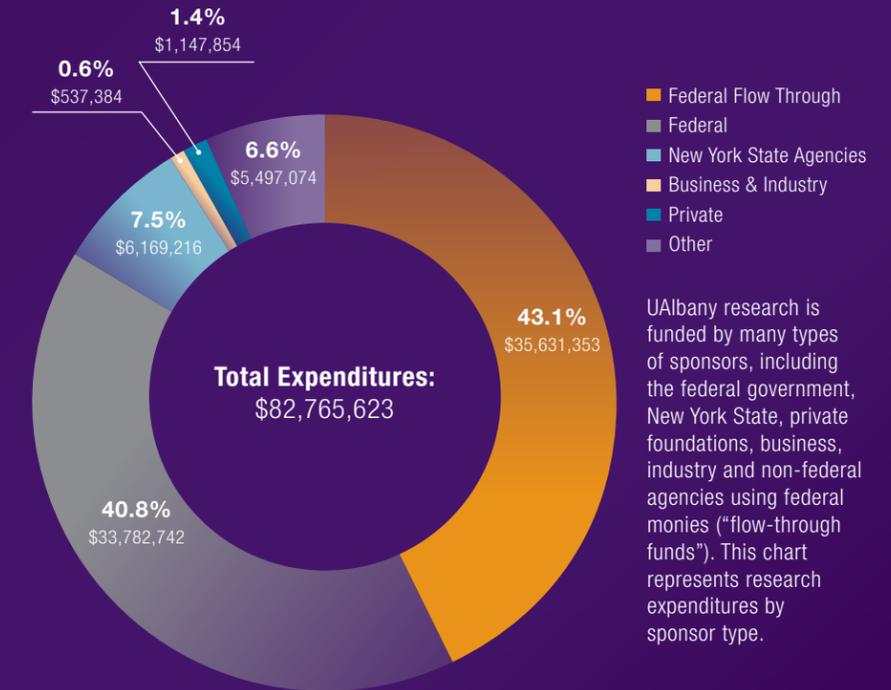
## PATENT DETAILS

- Patent US 8,841,438, issued September 23, 2014, Scott Tenenbaum et al., "Trans-acting RNA switch" (licensed to HocusLocus, LLC). The technology consists of RNA constructs which function to activate or inactivate a biological process. Potential applications include: targeting and killing pathogens or cancer cells; diagnosing the presence of a specific molecule in a cell; combating certain diseases by directing the expression of a particular protein in a cell deficient in that protein. HocusLocus received two federal STTR awards in FY 2014-15 to further develop the technology.
- Patent US 8,927,509, issued January 6, 2015, Hua Shi, Albert Millis, et al., "Aptamer modulators of complement protein C3 and biologically active proteolytic products thereof." Aptamers are small nucleic acid molecules that bind very specifically to proteins or other cellular targets. The aptamers of this invention modulate elements of the immune system and have potential utility as treatments for cancer and diseases with an inflammatory or autoimmune component.



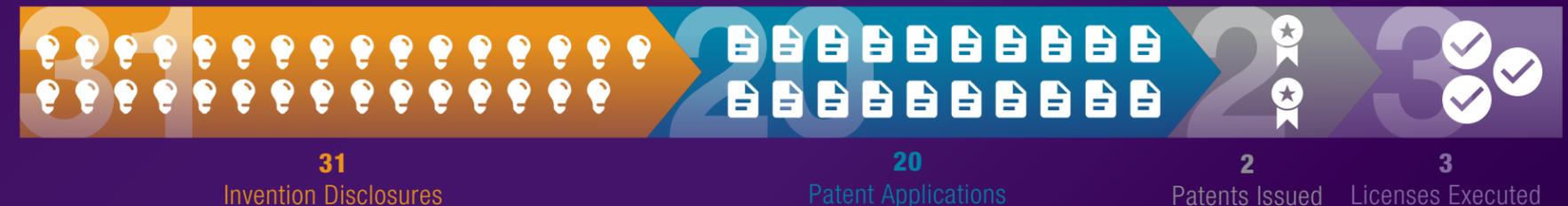
\* Expenditures for Health Research, Inc. (HRI) is solicited and administered for UAlbany faculty employed by New York's Department of Health.

## TOTAL EXPENDITURES BY SPONSOR TYPE



UAlbany research is funded by many types of sponsors, including the federal government, New York State, private foundations, business, industry and non-federal agencies using federal monies ("flow-through funds"). This chart represents research expenditures by sponsor type.

## UAlbany Patent Activity: KNOWLEDGE CREATION TO MARKET REALITY



# REWARDING EXCELLENCE

*Faculty are Recognized in 2015-16  
for Excellence in Research and  
Creative Activities*

## UNIVERSITY AT ALBANY PRESIDENT'S AWARD

SHEILA BERNARD  
College of Arts and Sciences  
History

ALEXANDER SHEKHTMAN  
College of Arts and Sciences  
Chemistry

BEN SZARO  
College of Arts and Sciences  
Biological Sciences

## STATE UNIVERSITY OF NEW YORK CHANCELLOR'S AWARD

CHARLES HARTMAN  
College of Arts and Sciences  
East Asian Studies

IGOR LEDNEV  
College of Arts and Sciences  
Chemistry

MICHAEL SATTINGER  
College of Arts and Sciences  
Economics

UNIVERSITY AT ALBANY

State University of New York