

Rhode Island INBRE

IDeA Networks for Biomedical Research Excellence

NEWS AND EVENTS

2011 Winter Faculty Retreat

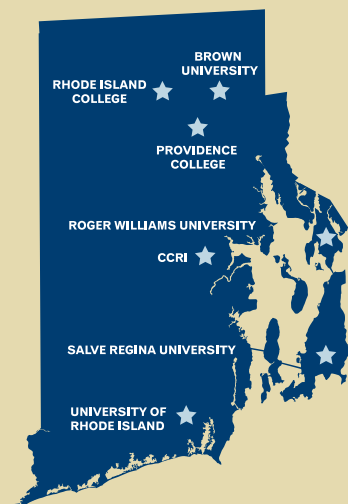
The 7th Annual Winter Retreat was held from noon to 5:00 PM on Friday, February 4th at the Pell Center for International Relations and Public Policy in the Young Building on Salve Regina University's Newport Campus. Welcoming remarks were provided by Sister Jane Gerety, President of the University. Dr. Sheila Quinn of Salve Regina University, Dr. Joseph DeGiorgis of Providence College, Dr. David Taylor of Roger Williams University, and Dr. Nicanor Austriaco of Providence College gave oral presentations about their research accomplishments. Their talks were followed by a Workshop on Mentoring which was conducted by Dr. Paula Dehn, Vice President for Academic Affairs and Dean of the College at Kentucky Wesleyan College, and Dr. Robert Cluss, Dean of Curriculum and Professor of Biochemistry at Middlebury College in Vermont. The workshop was attended by over 50 participants and provided an opportunity for the investigators to share and discuss their mentoring experiences.

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OUR MISSION

The Rhode Island network, one of the 24 INBRE networks nationwide, seeks to support and develop talented scientists, especially junior investigators, and build a productive multi-site program for collaborative research in molecular toxicology, cell biology, and behavioral science.



Dr. David Taylor, Roger Williams University



2011 Winter Faculty Retreat Luncheon

FROM THE DIRECTOR

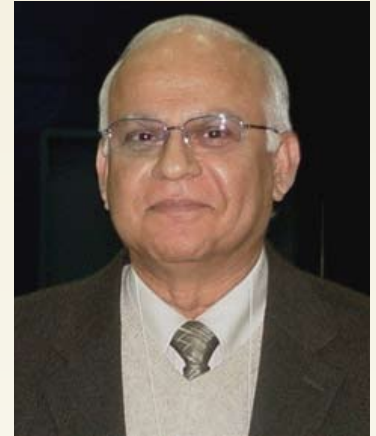
There are many exciting news items to report since our last issue. First, I am happy to report the inclusion of two new investigators who have joined the RI-INBRE program. Dr. Mindy Levine (Assistant Professor of Chemistry, University of Rhode Island) is the Faculty Development Program awardee and Dr. Steven Threlkeld (Assistant Professor of Psychology, Rhode Island College) is the Collaborative Research Program awardee. Dr. Threlkeld's collaborator/mentor is Dr. Barbara Stonestreet (Professor of Pediatrics, Women & Infants Hospital). There are also eight Student Training Pilot Project awardees this year: Dr. Karen Almeida (Associate Professor of Chemistry, Rhode Island College), Dr. Nicanor Austriaco (Assistant Professor of Biology, Providence College), Drs. Kirsten Hokeness and Christopher Reid (Assistant Professors, Bryant University), Dr. Alison Shakarian (Associate Professor of Biology and Biomedical Sciences, Salve Regina University), Dr. Thomas Sorger (Professor of Biology, Roger Williams University), Dr. Jennifer Van Reet (Assistant Professor of Psychology, Providence College), Dr. Yinsheng Wan (Associate Professor of Biology, Providence College), and Dr. John Williams (Professor of Chemistry, Rhode Island College). This list includes a number of new faculty, some of whom we hope to continue to fund in future years as their research projects mature.

One of the major undertakings this year was organizing the 4th Northeast Regional IDeA Meeting in August.

Our Summer Undergraduate Research Fellows (SURF) program continues to grow. For the third year in a row, the 2011 program was organized in collaboration with RI EPSCoR. This summer, RI-INBRE supported 82 students from all the institutions in our network. The SURF program culminated with the 10th Annual SURF Conference

on July 29th at the University of Rhode Island's Ryan Center. More information about the SURF program and Conference is provided in an accompanying article in this issue.

Our Winter Retreat was held on February 4th at the Salve Regina University and included talks by selected faculty researchers. A workshop on mentoring followed the scientific session. I am pleased that one of the moderators of this workshop, Dr. Paula Dehn, has since joined the RI-INBRE program as a member of our External Advisory Committee.



Dr. Zahir Shaikh

One of the major undertakings this year was organizing the 4th Northeast Regional IDeA Meeting in August. This 3-day event was held at the Salve Regina University campus in Newport, RI. It was attended by nearly 200 participants from all 5 INBRE and 17 COBRE programs in the northeast region. Additional details of this event are included in this Newsletter and are also available on the meeting website (http://www.uri.edu/inbre/NE_Regional_IDeA_Meeting.shtml).

Since March, Dr. Daniel Udway (Assistant Professor of Biomedical and Pharmaceutical Sciences, University of Rhode Island) has once again assumed the responsibilities of coordinating the Bioinformatics Core. He is looking forward to assisting the RI-INBRE community with its educational and consultation needs in this area. Dan is also in charge of organizing our monthly seminar series and would welcome suggestions for potential speakers.

PROGRAM UPDATES

Udway Retakes Reins of Bioinformatics Core

by Sam Costello

RI-INBRE's Bioinformatics Core, a collection of resources that helps investigators apply information technology to biological research, has a new coordinator: Dr. Daniel Udway.

Udway is an assistant professor in the Department of Biomedical and Pharmaceutical Sciences at the University of Rhode Island, where he studies the biochemistry and genetics of natural products biosynthesis in fungi and bacteria, research that requires extensive use of many computational tools to solve biological and chemical problems. He also regularly teaches two bioinformatics courses at



Dr. Dan Udway, RI-INBRE Bioinformatics Core Coordinator

URI. He took charge of the Core in March 2011, succeeding Dr. Joanna Fuego. Dr. Udway had also coordinated the Core during 2008-2010.

The Bioinformatics Core offers investigators in the INBRE program hardware, software, and technology support including: two servers running applications software, a high-performance-computing center at Brown University, IT consulting and training, software licensing, and general technical support.

Udway is excited about the opportunities offered by the last decade's advances in technology, which have made previously expensive techniques like genome sequencing affordable and essential to many kinds of research. It's techniques like these, offered by the Bioinformatics Core, that Udway hopes will help researchers in Rhode Island advance their research into the new era.

"The purpose of having a Bioinformatics Core is to educate the students and faculty and increase their use (of bioinformatics) to propel

PROGRAM UPDATES continued

Rhode Island into the 21st century," he says, adding that having the Bioinformatics Core may help researchers discover "that they have the ability to do things that maybe they didn't know they can do that will help their research."

"My role is going to be helping to coordinate people. If someone has a bioinformatics need, they can contact me to put them in touch with the (right) people and tools," Udway says. He is planning seminars and workshops to raise awareness of the Core and its capacities. He will be assisted in these actions by Dr. Weiqi Wang who joined Dr. Udway as an RI-INBRE Postdoctoral Fellow in September, 2011.

For now, though, he hopes to hear from his fellow researchers. "I need to know what people need to know," Udway says. "Contact me. If researchers have Bioinformatics needs or interests, let's talk."

He can be reached at danudway@mail.uri.edu or 401-874-9361.

SURF Program Expands With New Fellowships

by Sam Costello

Every summer for the past 10 years, Rhode Island's most promising science undergraduates have come together to gain hands-on research experience that prepares them for graduate school and professional careers.

While the Summer Undergraduate Research Fellowship (SURF) program has grown to 82 participants this year, every year the program has "far more students apply, than we can currently support," according to Dr. David Rowley, SURF coordinator and associate professor of pharmaceutical sciences at the University of Rhode Island. This is particularly true of the URI component of the program.

This year, though, two additional students participated in SURF thanks to two new fellowships, one sponsored by the URI Provost's Office, the second by the Rhode Island Economic Development Corporation (EDC) as the Carcieri Fellowship in honor of the former Governor.

"Programs like SURF, which integrate research and education, strengthen student training and engagement by keeping students in the labs in the summer months, gaining hands-on experience and career mentoring," says Christine Smith, Innovation Manager of the Rhode Island Science and Technology Advisory Council, a program of the EDC. "With a trained and skilled workforce, Rhode Island will be better positioned to develop knowledge and discovery that can lead to significant advances in biomedical, environmental and life sciences."

Rowley agrees, saying that including more undergraduate students into the program is key to building the state's pipeline of researchers and skilled workers.

"So often I've heard from students that the SURF program was the single catalytic event in their development that demonstrated to them that they wanted to pursue research," he says.

The program includes participants from URI, Providence College, Brown, Roger Williams, Salve Regina, Rhode Island College, the Community College of Rhode Island, and Bryant. It is also a

collaborative program with RI-EPSCoR (Experimental Program to Stimulate Competitive Research), a marine life sciences research program based at URI which also supports SURF students.

The 10-week program includes students working directly on research projects with faculty mentors, workshops on topics like ethics and presenting research, and visits to local companies. This year's SURF program concluded on July 29 with nearly 100 poster presentations by the students at URI's Ryan Center.



Dr. David Rowley, RI-INBRE SURF Program Coordinator at the SURF Picnic

The SURF program provides not only a stipend, but also housing, which allows students who otherwise might need more traditional summer jobs to participate. That chance to do real-life lab work can be crucial in career development of undergraduates, according to Rowley.

"Every aspiring young scientist needs an opportunity to get into the laboratory and see what research is really all about," he says. "This is that opportunity for a lot of students."

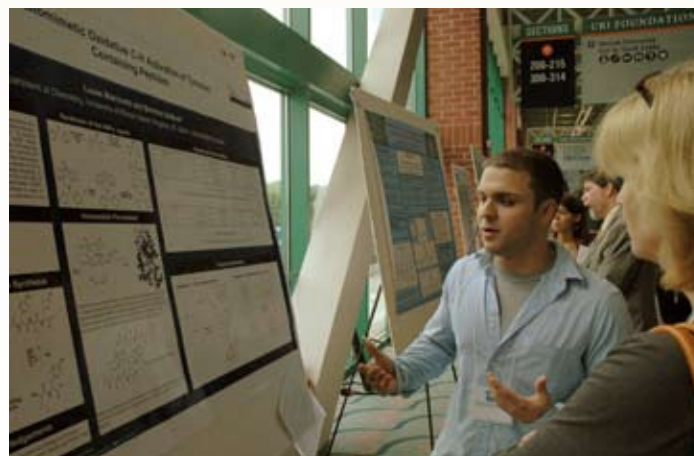
While some students use what they've learned in the SURF program to pursue higher education, others head for the commercial sector.

"A company is going to want to hire young scientists who have experience," Rowley says. "We're providing biotechnology and pharmaceutical companies with students who already have a skill set."

But SURF isn't just rewarding for students, says Rowley.

"I've had a few students from my laboratory go on to pursue science in both academia and industry. It's really exciting to see what the possibilities are for these students," he says. "These SURF programs can have a pretty dramatic influence on the career paths of students."

And that not only benefits the students, but Rhode Island's colleges and universities, and businesses as well.



Louis Marchetti, Caciieri Fellow

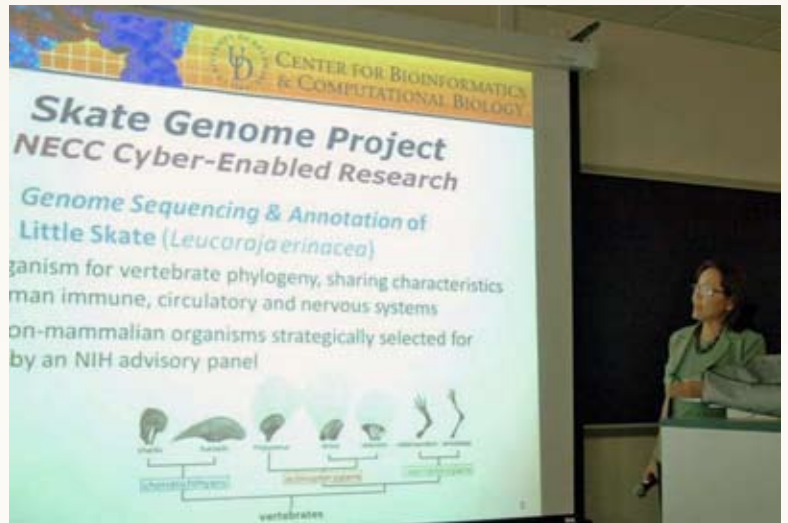
NEWS AND EVENTS CONTINUED

Biennial Northeast Regional Institutional Development Award (IDeA) Program Meeting

The 4th Northeast Regional Institutional Development Award (IDeA) Meeting was held on August 10 - 12, 2011 at the picturesque seaside campus of Salve Regina University in Newport, Rhode Island. Nearly 200 individuals representing all 5 INBRE Programs and 17 COBRE Programs in Delaware, Maine, New Hampshire, Rhode Island, and Vermont participated in the Conference. The meeting venue provided the attendees ample opportunities to share scientific discoveries and discuss issues of common interest in a relaxed environment. Welcoming remarks at the opening night dinner were provided by Dr. Zahir Shaikh, Director of RI-INBRE and meeting organizer; Sister Jane Gerety, President of Salve Regina University; Dr. Peter Alfonso, URI's Vice President for Research and Economic Development; and Dr. Sidney McNairy, Director of the Division of Research Infrastructure, National Center for Research Resources (NCRR), National Institutes of Health (NIH). Opening night activities included a speech by US Senator Sheldon Whitehouse (RI) who addressed the attendees and shared his views on biomedical research and the continuing need to make innovative discoveries while also creating jobs. The IDeA Program updates were provided by Dr. Yanping Liu, NCRR Program Officer for the COBRE Program and Dr. Fred Taylor, Director of the IDeA Program at NCRR. The keynote speaker at the Conference was Dr. Bruce Zetter, Charles Nowiszewski Professor of Cancer Biology at the Department of Surgery, Children's Hospital Boston, and Harvard Medical School. He delivered his lecture on the second day of the Conference and discussed treatment strategies for metastatic prostate cancer. In all, there were 193 attendees, including 36 students and postdoctoral fellows. The thirty-seven platform presentations were organized into 8 scientific sessions. Workshop topics were Assessment, Core Facilities, and the North East Cyberinfrastructure Consortium. A total of 71 scientific posters were presented, including 18 on various Core Facilities throughout the Northeast region.



Dr. Sidney McNairy, NIH & Jessica Jewell, Delaware State University



Dr. Cathy Wu, University of Delaware



Student volunteers, Craig Irving, Priscilla Villa, Wayne Bainter, & Justin Gay, Salve Regina University



Dr. Fred Taylor, NIH



Keynote Speaker, Dr. Bruce Zetter, Children's Hospital Boston & Harvard Medical School



Welcome Reception



Dr. Peter Alfonso, University of Rhode Island



Sister Jane Gerety, RSM, President of Salve Regina University



Dr. Sidney McNairy, NIH



US Senator for RI, Sheldon Whitehouse



Dr. Kevin Rice, Colby College; Dr. Brent Berwin, Dartmouth Medical School; Dr. Matthew Poynter, University of Vermont; & Dr. Oliver Dienz, University of Vermont



Angelyca Jackson, Dartmouth Medical School & Dr. Pamela Swiatek, Brown University

FEATURED INVESTIGATORS



Dr. Mindy Levine and Students

RI-INBRE Accelerates Cancer Research

by Sam Costello

When asked to describe her research, Dr. Mindy Levine, assistant professor of chemistry at the University of Rhode Island, says, “we want to make polymer molecules do interesting things.”

Asked to expand, she revealed that the polymer molecules won't just do interesting things, they'll do important things, too, like treat cancerous tumors with fewer side effects than current therapies.

And she'll be accomplishing more in her first two years at URI than she'd expected, thanks to her involvement with RI-INBRE.

Levine focuses on treating cancer using homochiral cationic polymers, polymers with positive charges that would not be identical mirror images if they were to be superimposed on each other.

Solid cancerous tumors are generally able to survive in low-oxygen environments, thanks to two genes: hnRNPA1 and hnRNPA2, which are in greater abundance in cancer cells. Her team synthesizes polymers in a way that enables them to bind to small interfering RNA (siRNA). The polymer-siRNA combination is then injected into the tumor, where Levine hopes it will bind with the cancerous cells and suppress hnRNPA1 and hnRNPA2, causing the tumor to suffocate.

“Most of the ways to treat tumors now don't target the tumor cells specifically. In chemotherapy, you're basically targeting every cell, but because the tumor cells grow faster, you kill more of them,” she says. “That's the basis of the side effects.”

The more focused approach she's investigating will target tumor cells directly and “will substantially limit all of the negative side effects.”

“It's amazing in this day and age, given what we know about biology, chemistry, and medicine, how primitive these treatments are in hospitals. We're hoping to change that,” she says.

And if they do, it will be thanks in part to support from RI-INBRE.

Levine came to URI in Sept. 2010, after earning her Ph.D. at Columbia and completing a post-doctoral fellowship at MIT. She credits RI-INBRE's support with accelerating the speed at which she's been able to establish her lab and begin meaningful research.

“Things are really happening here at a rate that is substantially faster than would have happened without RI-INBRE”, she says.

“I have as much instrumentation here as I did as a grad student at Columbia, and that's just in my first year” she adds, noting that she's been able to acquire that equipment as a junior faculty member at URI, while her professor at Columbia had been with the university for 50 years.

Beyond purchasing equipment, RI-INBRE has provided Levine with valuable assistance in staffing (three RI-INBRE-funded students—including a skilled post-doctoral fellow—worked in her lab this summer) and mentorship. She particularly credits URI's Dr. Bongsup Cho.

“Talking with him and collaborating with him has given me a tremendous education in what useful things we can do with our knowledge,” she says.

And, as she works to apply that knowledge to the battle against cancer, RI-INBRE's support will form a key foundation.

“I'm really grateful to INBRE,” she says. “I really am. It's opened up so many opportunities.”

For URI Researcher, Small Things Have a Big Impact

by Sam Costello

While nanotechnology—the use of super-small, man-made materials inserted into the body to perform specific functions—may seem like science fiction, for one new RI-INBRE participant, it's a fact that may promise more effective cancer treatments.

For Dr. Wei Lu, assistant professor in the University of Rhode Island's College of Pharmacy, these treatments begin with hollow gold tubes that are just 14 nanometers—that's 14 billionths of a meter. Gold is particularly precious to researchers like Lu because it is non-toxic to humans, has very few side effects, and metabolizes out of the body relatively slowly, making it safe and effective for medical applications.

Lu uses the hollow gold nanotubes to deliver drugs to and more accurately image tumors. He combines that with a treatment called photothermal chemotherapy, which destroys tumor cells with heat.

RI-INBRE supports Lu's photothermal chemotherapy research, which employs a gold nanoparticle that contains Cisplatin, a well-established chemotherapeutic agent. He injects the nanoparticle which can be directed at the tumor site and shines near-infrared light on it. Thanks to the design of the nanoparticles, the light heats the particles, releasing the drug which attempts to destroy the tumor from the inside.

This approach is of particular interest because Cisplatin can have a variety of serious side effects, including nerve and kidney damage. By restricting its delivery directly to the tumor, Lu would reduce its side effects and hopes that the combination therapy would help treat chemotherapy-resistant tumors.

While creating these nanoparticles doesn't call for high-end equipment, it does require a very high degree of skill. Controlling the shape and properties of such tiny particles isn't easy, Lu says. In his first year at URI, he created the particles himself, but he has since trained an undergraduate to fashion these.

Lu, who received his PhD in pharmaceutical science from Fudan University in Shanghai, China, has also worked at the University of Texas' MD Anderson Cancer Center in Houston. Despite having a position at MD Anderson, he chose to come to URI in Sept. 2010 because of the opportunity to pursue independent research.

At URI, RI-INBRE provided Lu substantial start-up funding to establish his lab, purchase specialized equipment, and acquire and house the mice that he tests his nanoparticles on.

"The INBRE program helped me a lot," Lu says. "Without the INBRE grant, it would have been really hard for me to get those things and quickly start work."

Beyond funding, the INBRE program has offered him networking benefits as well. Through URI's Dr. Bongsup Cho, Lu has established a mentoring relationship with a fellow nanotechnologist, Dr. Vincent Rotello of UMass Amherst.

"It's really helpful for (new faculty) to find a good mentor to establish a relationship and get great help," Lu says. "It would be really hard for me to find (a mentor) myself, but INBRE has really helped me" to make that connection.

With the connections and funding that RI-INBRE has provided, Lu says he hopes "to increase the therapeutic efficacy and decrease the side effects" of cancer treatment.



Dr. Wei Lu

FEATURED INVESTIGATORS



Dr. Marcia Marston and Students

Roger Williams Professor Teaches the Teachers

by Sam Costello

While it most often helps young investigators establish their labs, RI-INBRE has sometimes also supported more senior faculty, including Dr. Marcia Marston, a biology professor at Roger Williams University.

Grants are crucial to professors being able to both produce good science and train the next generation of researchers. Funding from RI-INBRE allowed Marston, who has been at Roger Williams for 16 years, to continue her work and train students as she sought additional outside funding. She secured new funding from the National Science Foundation in Fall 2010.

While working with RI-INBRE, she helped train a new generation of science teachers and scientists.

Marston's RI-INBRE funding allowed her to give two high school teachers hands-on research experience that they could employ in their classes. The teachers—from Providence and Bristol—studied the genomes of marine viruses and then shared, and in one case continued, the research with their students, who responded with excitement and interest.

"In a lot of high school lab exercises, you know what the outcome is going to be," Marston says, but "these were open-ended discovery-based lab exercises."

The teachers reported that their students "really liked having a real-world application where they could start with something unknown and go through the scientific process to make some discovery that was unanticipated," she says.

Marston's research focuses on marine viruses called cyanophages, and how they acquire new DNA and mutate. She is quick to point out that

while cyanophages aren't dangerous to humans, their mutation has implications for human health.

Take the flu virus, for example. Each year, small changes in the virus necessitate a new flu shot, "but occasionally those viruses can pick up large chunks of new genetic material from a new source and you end up with something like H1N1," AKA swine flu, she says.

Understanding the mechanisms by which viruses take in new DNA and mutate has broader implications for how to treat viruses of all kinds, including those affecting humans, she says.

Besides training teachers, Marston has also worked with RI-INBRE to train undergraduates.

RI-INBRE's funding paid stipends and research costs for undergraduates who spent summers assisting her. More than just a job, the experience those students gained in her lab positions better prepared them for future careers.

"All the techniques that they learned in my lab were directly applicable to human health," she says. The experience "helps them to find jobs and admissions in the graduate programs. INBRE has provided opportunities for students to learn the tools and techniques that are used in biomedical research."

With equipment purchases through RI-INBRE, "I was suddenly able to look at whole genomes of viruses that I was never able to before", says Marston. While RI-INBRE program supported her work, Marston says it also benefited other faculty at her institution by providing access to the new equipment.

Marston's example demonstrates that, whether you're a new or established researcher, working directly with the program or not, an undergraduate or a high school teacher, RI-INBRE can play an important role in your research and training activities.

Third-of-Its-Kind Lab Established with RI-INBRE Support

by Sam Costello

RI-INBRE helps researchers establish labs and produce data that leads to independent funding, but it doesn't ask them to do it alone. Instead, it often facilitates collaboration between young investigators and established ones. This is the case with Dr. Steven Threlkeld, an assistant professor of psychology at Rhode Island College (RIC).

In his position at RIC, which began in Fall 2010, Dr. Threlkeld and his post-doctoral advisor, Dr. Barbara Stonestreet, of Brown University and Women's and Infants Hospital, are studying ways to protect infants from brain injury at birth.

When infants' brains are injured, especially due to oxygen deprivation or bleeding, their brains can develop malformations leading to serious lifelong problems like epilepsy or more minor effects, including dyslexia. Threlkeld and Stonestreet, are continuing their research from Threlkeld's post-doctoral work, investigating whether a protein called alpha-inhibitor can protect against these injuries.

Brain injuries arising from ischemia, a restriction of blood supply (in Threlkeld's research, to the brains of infants), cause inflammation. While inflammation is normally an immune response that facilitates healing, in the infant brain it can destroy neurons that never grow back, according to Threlkeld. This damage leads to developmental issues.

Based on work by Dr. Stonestreet and Harvard's Dr. Yow-Pin Lim that found alpha-inhibitor protein to be effective in combating inflammation, Threlkeld is looking into whether alpha-inhibitor protein can block ischemia-related brain injuries in newborn mice, with a specific focus on how those mice process sounds. While his current work is with mice, it is aimed at treating human babies, Threlkeld says.

"Ideally if you had a pre-term infant that would be in a high risk category, you would want to be able to provide this kind of treatment as a preventive measure," he says.

There are only two other labs in the United States doing the same kind of auditory processing work, he says, adding that RI-INBRE's support was a major factor in establishing his lab.

The grant he and Stonestreet received from RI-INBRE is designed for collaboration between senior faculty at a research institution and junior faculty at an undergraduate institution. While Threlkeld got funding for his lab—"without any kind of external funding, it would have been impossible," he says—Stonestreet also received funding to hire staff to work on their joint research.



Dr. Steven Threlkeld and Students

"Steve is a really bright guy and he needs to get his lab up and going," she says. "This grant will provide seed money to get him up and going and that will have a more long-term benefit" because it will allow him to generate data to secure independent funding.

Threlkeld agrees, citing an advisor who said that "grants beget grants. Once you have the template of the research infrastructure, the research can perpetuate itself and create more opportunities. That's what the INBRE program has allowed."

Beyond that, through his collaboration with Stonestreet, it's also "(created) more opportunities for students to go to hospitals, attend seminars, and get involved with what they're doing," he says.

It's that kind of close collaboration between researchers and institutions—and the important research it generates—that make RI-INBRE valuable.

NEWS AND EVENTS continued

Dr. Paula Dehn Joins the External Advisory Committee

In July 2011, Dr. Paula Dehn, Vice President for Academic Affairs and Dean of the College at Kentucky Wesleyan College, joined the RI-INBRE External Advisory Committee. Her previous academic appointments included Chair of the Biology Department at Canisius College, Buffalo, NY, and faculty member at the University of Texas, San Antonio. During her academic career, she has mentored more than 200 undergraduate researchers in the area of environmental toxicology and was the Program Director for the Howard Hughes Medical Institute Undergraduate Science Education Research grants. At the National level, she has been the Council on Undergraduate Research in various capacities, including its Executive Board, and has served as an INBRE program reviewer for AAAS.



Dr. Paula Dehn

Important Dates

2/3/12 – RI-INBRE Winter Faculty Retreat, Rhode Island College, Providence, RI

3/1/12 – RI SURF Program Application Deadline

6/25/2012 – 4th Biennial NIH, NCCR National IDeA Symposium of Biomedical Research Excellence (NISBRE), Omni Shoreham Hotel, Washington, DC

7/27/2012 – 10th Annual Rhode Island Summer Undergraduate Research Fellowship Conference & Faculty Retreat, University of Rhode Island, Kingston, RI

2011 Summer Undergraduate Research Fellows (SURF) Conference

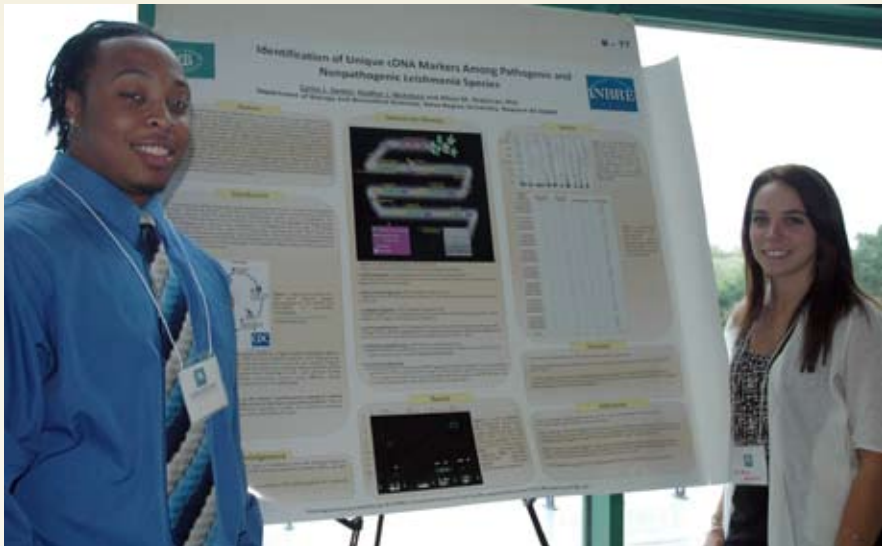
The 9th Annual SURF Conference was held in collaboration with the RI EPSCoR Program on Friday, July 29, 2011 at URI's Ryan Center. There were more than 275 participants from URI, Brown University, Providence College, Rhode Island College, Roger Williams University, Salve Regina University, the Community College of Rhode Island, and Bryant University. Welcoming remarks were given by URI President David Dooley, Dr. Zahir Shaikh (Director of RI-INBRE), Dr. Peter Alfonso (Director of RI EPSCoR and URI's Vice President for Research), and Ms. Christine Smith (Innovation Program Manager for the RI Economic Development Corporation's Science and Technology Advisory Council). A total of 100 posters were presented, of which 69 were by the 82 RI-INBRE undergraduate and graduate Fellows.



2011 RI SURF Conference



Lauren Pirrman, Salve Regina University
& Dr. Robert Dufresne, URI



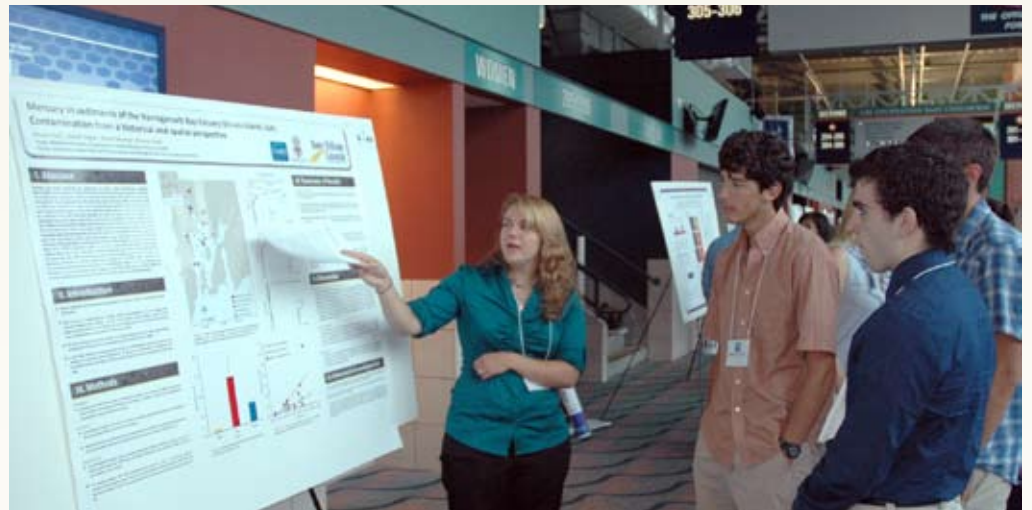
Carlos Santos & Heather Nicholson, Salve Regina University



Diana Denia & Dr. Lonnie Guralnick,
Roger Williams University



Dr. Zahir Shaikh, RI-INBRE Program
Director & Dr. David Dooley, URI President



Allison Hall, Roger Williams University



Lauren Whittle, Tabitha Newman, & Melissa Marcotte, Rhode Island College



Brittany Blumenthal, Providence College

AWARDS and RECOGNITIONS

Extramural Grant Awards (2001 – 2010)

Our investigators have received 13 R01, 2 R21, 2 R03, 2 R15, and 2 K awards from NIH. An additional 28 awards were received from NSF and other external funding agencies. The total extramural funding received by the RI-INBRE investigators is more than \$21 million thus far.

Providence College

Matthew Goulet '12, a research undergraduate student in Dr. Brett Pellock's Laboratory was awarded an American Society for Microbiology (ASM) fellowship for one year. The fellowship provides Goulet with a \$4,000 stipend for summer research, as well as travel assistance for attendance at the 2012 ASM meeting in San Francisco where Goulet will be presenting a poster on his research project.

Douglass Tucker '13, working in Dr. Nicanor Austriaco's Laboratory, was awarded \$1,000 from the American Society of Biochemistry and Molecular Biology to support his research during summer 2011.

Dr. Christopher Bloom was granted tenure and promoted to Associate Professor of Psychology. He also received a \$12,000 grant from Providence College's Committee on Aid to Faculty Research.

Rhode Island College

In Dr. Deborah Britt's Laboratory, **Xenia Fernandez** was named one of four Rhode Island College recipients of the McMahon Rising Junior Honors Scholarship for the 2011-2012 academic year based on her academic record and honors research project. The scholarship is awarded annually to students in the Honors Program who have completed General Education Honors and are going on to do a Departmental Honors Project in the senior year.

A recent graduate from Dr. Beverly Goldfield's Laboratory, **Katie**

Cilento received the Psychology Department's Outstanding Student Award. Cilento participated in the 2010 SURF program in which she helped design a video to test verb comprehension in infants.

Roger Williams University

Two of Dr. David Taylor's undergraduate students, **Garret LeBlanc** and **Nick Kutil** tied for the Best Student Poster Award in separate presentations at the North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry meeting held in Freeport, ME, June 9-10.

In Dr. Avelina Espinosa's Laboratory, **Monichan Phay** received the 5th BioNES undergraduate Honorary Mention this past December. She graduated in May and is currently working in Harvard's Cell Biology Department. Also, **Barbara Mann**, formerly of the Espinosa Laboratory, is currently pursuing her Master's Degree in Cell Biology at the University of Massachusetts Amherst.

Salve Regina University

Dr. Steven Symington and his Mentor (**Dr. John Clark**, University of Massachusetts Amherst) were awarded a one-year contract from the Council for the Advancement of Pyrethroid Risk Assessment to support a collaborative research project entitled "Comparative assessment of pyrethroids on heterologous and native voltage-sensitive sodium channels from adult and juvenile rat brain using *Xenopus oocytes*".

University of Rhode Island

Two undergraduate students in Dr. Mindy Levine's Laboratory, **Kayla Flynn** and **Teresa Mako**, received an Eli Lilly Travel Award for their poster presented at the 242nd meeting of the American Chemical Society in August in Denver, CO.



Rhode Island INBRE, Center for Molecular Toxicology, College of Pharmacy
University of Rhode Island, 41 Lower College Road, Kingston, RI 02881



The RI INBRE Program is supported by a grant from the National Center for Research Resources, National Institutes of Health