AAMC Awards Innovations in Research and Research Education

The Association of American Medical Colleges (AAMC) has announced six recipients of the 2014 AAMC Building Bridges and Spanning Boundaries Award: Innovations in Research and Research Education. This is the third annual award developed in collaboration with the GREAT Group and GRAND leadership. The GREAT (Graduate Research, Education, and Training) Group is the AAMC’s professional development group for the faculty and administrative leaders of biomedical Ph.D., M.D.-Ph.D., and postdoctoral programs. The GRAND (Group on Research Advancement and Development) leadership is the AAMC’s professional development group for research deans, deans of clinical research, and other research leaders at academic medical centers.

The primary goal of this year’s awards program is to identify bright spots and disseminate innovations in two different areas: institution-community partnerships and maximizing research efficiency. The six awarded projects—chosen from 48 submissions—were selected by a panel of leaders in biomedical research, education, and training from AAMC-member institutions as well as senior AAMC staff. Entries were judged by the extent to which they advance creative, collaborative partnerships and their impact on the institution and community. Awards were presented at the GRAND, GREAT Group and Postdoctorate Leaders Section Annual Professional Development Meeting in Ft. Worth on Sept. 19, 2014.

Community Partnership Winners –

NC DNA Day - a low-cost, high-impact, trainee-led, and reproducible outreach opportunity
University of North Carolina at Chapel Hill - Patrick Brandt, Ph.D.

Innovative Program for Translational Child and Adolescent Psychiatry in Schools
Texas Tech University Health Sciences Center - Manish Aligeti, M.D., M.H.A.

The Communication of Life Sciences Collaborative Program
Albert Einstein College of Medicine - Victoria Freedman, Ph.D.

Maximizing Research Efficiency Winners –

UAB Center for Clinical and Translational Science (CCTS) Human to Model (H2M) Shared Resource
University of Alabama at Birmingham - Robert A. Kesterson, Ph.D.

Washington University Human Research Protection Office Digital Commons
Washington University School of Medicine - Sarah Fowler-Dixon, Ph.D.

Maximizing Research Efficiency in an Academic Medical Center by Training Future Clinical Scientists and Supporting the Research Infrastructure
University of Utah - Maija Holsti, M.D., M.P.H.
Awardee Abstracts

NC DNA Day - a low-cost, high-impact, trainee-led, and reproducible outreach opportunity
Patrick Brandt, Ph.D., and Joshua Hall, Ph.D., University of North Carolina at Chapel Hill

North Carolina DNA Day, an annual event since 2007, is a statewide collaboration between NC’s leading research universities and hundreds of NC public high school teachers. Each year more than 100 graduate students and postdocs present interactive lessons about genetics, genomics, and biotechnology to 8000+ high school students. These young scientists discuss their own research with students and share exciting career opportunities in science and biotechnology. The objectives of North Carolina DNA Day are to:

1. Educate NC students about cutting-edge facets of life science that are relevant to their lives
2. Introduce students to a young scientist, which demystifies a career path that many students have thought possible for themselves
3. Support NC science teachers and reinforce their lessons
4. Build relationships between major NC research entities and public school classrooms
5. Nurture a desire for service and outreach in rising scientists that will continue throughout their careers

NC DNA Day is run by graduate students and a small outreach team at the University of North Carolina – Chapel Hill. It is a highly replicable project that has impacted nearly 60,000 high school students in the last 8 years with an average annual budget of under $5000.
Innovative Program for Translational Child and Adolescent Psychiatry in Schools
Manish Aligeti, M.D., M.H.A; Ankit Parmer, M.D., M.H.A.; Deepi Vats, M.D; and Billy Philips, Jr., Ph.D., M.P.H., Texas Tech University Health Sciences Center

In 2013, the Department of Psychiatry at the Texas Tech University Health Sciences Center (TTUHSC) partnered with a State-funded demonstration project, the Telemedicine Wellness, Intervention, and Triage Referral (TWITR) Project within the F. Marie Hall Institute for Rural and Community Health and Department of Telemedicine at TTUHSC, implementing a more effective way to help identify, assess, and address needs of adolescents in West Texas through mental health intervention. To meet the needs of community schools, partnership goals are to provide school-based psychiatric interventions and improve academic performance in children and adolescents struggling with mental illness. This research project aims to identify assessed adolescents in terms of demographic and baseline clinical data by conducting a chart review. Outcome measures contain academic grades, truancy reports, and disciplinary referrals. With success of the initial study, gathering data for academic outcomes from participating schools is critical; comparison of these variables is instrumental in evaluating effectiveness of psychiatric interventions. Demographic and clinical variables will be included to describe the overall population characteristics and understand their impact on psychiatric outcomes. Community impact includes receipt of services in short supply, available immediate triage and diversion of possible crisis, and improved care for children with mental health needs.
The Communication of Life Sciences Collaborative Program

Amy R. Tuininga, Ph.D., Fordham University; Brian Johnson, Ph.D. Wildlife Conservation Society [Zoo]; James Lewis, Ph.D., Fordham University; Don Lisowy, MSEd, Wildlife Conservation Society [Zoo]; James Boyer, Ph.D., New York Botanical Garden; and Victoria H. Freedman, Ph.D., Albert Einstein College of Medicine

The Communication of Life Sciences Collaborative Program builds on a formal partnership between the Albert Einstein College of Medicine (Einstein) and Fordham University (2008) and the recent creation of the Bronx Science Consortium (2012), bringing together Einstein, Fordham, Montefiore Medical Center, the Wildlife Conservation Society (WCS) and The New York Botanical Garden (NYBG) for pursuit of common scientific interests. Outreach to the community in the Bronx, one of the poorest and least educated counties in the U.S., and training of our graduate students in the communication of life sciences are central goals. Combining the expertise in biological sciences at Einstein and Fordham with the expertise in informal science education at WCS and NYBG, we established a novel program in which trainees develop communication skills and gain experience in a professional setting, while engaging with the community. Graduate students learn how to communicate information to non-scientists, become advocates for science, and reach broad audiences, including K-12 teachers, community groups and non-traditional funding sources. We will test how the program leads to improved scientific understanding in the public through engagement with these trainees. This program will impact public awareness of science, resulting in improved public understanding and appreciation of science and research.
The Human to Model (H2M) Shared Resource is part of the UAB Center for Clinical and Translational Science (CCTS) and its eleven-institution Partner Network. This shared resource brings together a broad set of expertise to assist clinical and basic scientists in the development and use of appropriate animal models to study a disease of interest. Traditionally, mice are used to study basic biology and human disease for many reasons (one of which has been the unique ability to readily modify their genetic makeup); however, many other species offer considerable advantages related to cost and generation times. H2M brings together a range of expertise available at multiple institutions in rodents (Kesterson), alternate mammalian models (Kimberly, Ballard, Dell'Italia, Smith), zebrafish (Watts, Kalueff), fruit flies (Drosophila; O’Donnell, Reed) and worms (C. elegans; Yoder, Caldwell). H2M provides educational resources and training in the use of genetically modified organisms, as well as numerous computational and laboratory services for the creation of new animal models. All Shared Resource services are available to investigators across the Partner Network. While mice remain the more typical model system, adoption of other species is accelerating through education, roundtable discussions and individualized consultation sessions where H2M scientists offer expert opinions.
HRPO Digital Commons@Becker is an open access library that houses materials relevant to the development, conduct, and review of human subjects research studies. The HRPO open access collection makes resources available in a convenient, searchable format. Materials are useful for researchers, human research protection program staff, IRB members, students, and raising community awareness. This initiative came out of the need and request from others to share best practices and materials with a wider audience. Materials had to be attributable, searchable and copyrighted so that authors felt comfortable contributing. Access had to be unrestricted so that individuals anywhere in the world at any time could view and use the information provided. Materials posted are intended to inform, educate, and provide a framework from which others can grow, become more aware of issues, or develop materials for their own sites. Outcomes for this initiative have exceeded expectations. Since the site’s release, there have been 11,306 page views from 46 countries. There have been 4,619 downloads and of the 110 items, 109 have been downloaded at least once. HRPO Digital Commons remains one of the top used sites as measured by Google Analytics. As new materials become available, they will be added to the site.

The HRPO collection is divided into 4 categories: Conferences are comprised of large educational sessions that have been hosted by HRPO. HRPP Education is a series of presentations given on a range of topics that are of importance to the conduct and review of human subjects research. HRPO Podcasts titled “More than Meets the IRB” is a series of interviews of issues held with notable individuals who discuss current events, literature and issues related to human research ethics. HRPO Publications are materials written and developed by HRPO.
We designed the Academic Associate Program to offer undergraduate students clinical research training early in their careers and to address barriers clinical investigators faced in performing research in clinical settings. We worked with Department and University leaders, principal investigators, coordinators, and students to create an innovative series of eight courses that leads to a minor in Pediatric Clinical Research for undergraduates and supports a robust clinical research environment. Stakeholders teach the curriculum, provide students with research opportunities, and benefit from the research support students provide. The Department invested in the start-up for the program and now receives program income through tuition and fees. The income supports the program director, coordinator, and an administrative assistant. Over 200 students have taken classes. The majority have either advanced to graduate or medical school or have entered careers in clinical research. Clinician scientists who participate in this program have been able to sustain programs in patient oriented research and meet enrollment goals, with several top-enrollers in multi-center trials as a result of student support. The Academic Associate Program is an innovative model that addresses multiple barriers to clinical research including developing a pipeline for clinical investigators and supporting a robust research infrastructure.