ACTS Leadership Profile: Arthur M. Feldman, MD, PhD

I am presently the Executive Dean of the Temple University School of Medicine and Chief Academic Officer of the Temple University Health System. Prior to that I was the Magee Professor and Chair of the Department of Medicine at Thomas Jefferson University and earlier in my career the Harry S. Tack Professor and Chief of the Division of Cardiology at the University of Pittsburgh School of Medicine. My research has focused on the molecular signaling events that regulate the development and progression of cardiac ventricular dysfunction during the development of heart failure. I have had the pleasure of working with the ACTS since its founding through my position as Editor in Chief of Clinical and Translational Science and serve as the Liaison between the ACTS and the journal. I also am the Chair of the Publications Committee. I am very excited about the opportunity to more closely link the ACTS and CTS so that the journal can serve the needs of the membership by publishing the most exciting work that is being accomplished across the four domains of clinical and translational science. With the help of the ACTS we will strive to publish manuscripts in a timely manner, provide an opportunity for trainees to participate in the publication process, serve as a sounding board for innovative ideas and create a platform for discussing controversial topics.

My own experiences in what we at the time referred to as "bench to bedside" research were nurtured and facilitated by my mentor in the Division of Cardiology at the Johns Hopkins University School of Medicine who encouraged me to pursue both bench and clinical research. As a result, I have been fortunate to work with outstanding physician-investigators in designing and carrying-out clinical trials assessing the efficacy of novel drugs and devices for the treatment of heart failure while at the same time pursuing efforts to identify new targets for drug therapy. Our early work on membrane receptors and their cognate G proteins led to a better understanding of the role of inotropic agents. More recently, based on findings in the laboratory, we are working with a biotechnology company to develop an arginine vasopressin V1A receptor antagonist for the treatment of patients with an acute exacerbation of heart failure and elevated levels of vasopressin. We are also working with the same company to develop a gene therapy approach to the treatment of patients with familial dilated cardiomyopathy that is caused by mutations in sarcosome proteins.

The Translational Science meeting provides a great opportunity to learn about the hottest new ideas in the field of translational science, to hear about the new programs and policies developed by the Federal regulatory and funding agencies and to catch up with friends and colleagues and former trainees from around the country. The meeting also serves a pragmatic goal – as it affords me the ability to speak with both trainees and established investigators and introduce them to the opportunity to publish their exciting science in CTS and more importantly to hear from them about how the journal can better serve their needs. Of course the best part of the meeting is the poster sessions – because it is there that I get to meet the future of translational science – the current trainees.

News from ACTS

Translational Science News

NIH Center Sets New Goals for Global Health Research and Training
GOOD MEDICINE: Medical Research Collaboration Booms
Pittsburgh Awarded Lead Role in NCI Clinical Trials Network
New Initiative to Boost Use of Genomics at NIH Clinical Center
New Center for Translational Environmental Health Research Takes Team Science
Good Medicine: Medical Research Collaboration Booms

NIH News (04/29/14)

From "NIH Center Sets New Goals for Global Health Research and Training"

Fogarty's research and training programs is on the agenda as well.

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NIH Center Sets New Goals for Global Health Research and Training

A new strategic plan from the National Institutes of Health’s Fogarty International Center recommends that global health research and training initiatives concentrate on fighting the growing epidemic of noncommunicable diseases, better embedding information technology within research and training, and more effectively translating scientific discoveries into practice in low-resource environments. The plan says Fogarty intends to revitalize its efforts to train more developing-country researchers in these new global health areas, where the field is migrating and where the most interesting discoveries are yet to be made. The plan calls for the center to ramp up projects to enlist investigators with diverse specialty backgrounds such as cardiology, oncology, bioengineering, neurology and mental health, and other topics that previously were not considered as elements in global health. In addition, Fogarty will support development of multidisciplinary teams with skills not traditionally associated with health, including engineering, business, economics, and law. More aggressively focusing efforts on incorporating information and communication technology into Fogarty’s research and training programs is on the agenda as well. Also prioritized is implementation science, so that proven interventions can be rapidly adapted for use in low-resource settings and scaled up. "By taking science to where the problems are, and by supporting research and research training in areas where the burden of disease is greatest, Fogarty investments will continue to build the health research workforce of the future," says Fogarty director Roger I. Glass.

From "NIH Center Sets New Goals for Global Health Research and Training"

NIH News (04/29/14)
The recently opened Spectrum Health Basic and Translational Research Laboratories, in Grand Rapids, Mich., features a basic “wet lab” and translational “bench to bedside” component to the research continuum. The labs support basic research to bolster new and existing treatment initiatives in such areas as brain tumors, pediatric urology and neuroblastoma, and blood and marrow transplantation. In addition, Michigan State University’s College of Human Medicine plans to establish a new research center at the former Grand Rapids Press property. The university requires its own facility because lab space leased from other institutions is at capacity, says MSU’s Jeff Dwyer. Sandra Rempe, vice president of research at Spectrum Health, says: “The whole aim is to be able to come up with new discoveries we can publish and disseminate to the world and bring new information to enhance the field and cure illness.” Over 90 percent of clinical trials and studies in the Grand Rapids area are linked to Spectrum Health, and Stempel says the new labs will allow them to recruit physician-scientists who want to see patients, but are interested in discovering new treatments for patients as well.

From "Good Medicine: Medical Research Collaboration Booms" Rapid Growth Media.com (MI) (04/24/14) Miller, Maria R.

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Dartmouth Awarded Lead Role in NCI Clinical Trials Network

One of 30 grants from the National Cancer Institute (NCI) has been awarded to Dartmouth College, which will serve as a Lead Academic Participating Site in NCI’s new National Clinical Trials Network (NCTN). The NCTN grant system seeks to streamline operations to achieve faster design, launch, and completion of clinical trials; optimal use of scientific innovations; strategic prioritization of studies; and expanded participation of patients and physicians. “Everyone—patients, providers, and family members—wants to see faster access to new treatments for cancer,” says Konstantin H. Dragnev, principal investigator for the Dartmouth-Hitchcock Norris Cotton Cancer Center Site. This new framework will cut the startup time for a clinical trial by 75 percent in some cases. It removes obstacles we used to face to report and oversights, so we can now offer therapeutic advances to patients sooner.” The Norris Cotton Cancer Center will be charged with enhancing participation in NCI randomized phase three clinical trials. Dartmouth will oversee involvement and participation from affiliated patient enrollment settings in New Hampshire, Vermont, and other states.

From "Dartmouth Awarded Lead Role in NCI Clinical Trials Network" Phys.Org (04/24/14)

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New Initiative to Boost Use of Genomics at NIH Clinical Center

The National Institutes of Health (NIH) has developed a new initiative to provide 1,000 exomes over the next two years to intramural investigators who sequence and analyze DNA. The Clinical Center Genomics Opportunity (CCGO) is expected to launch this summer, and it will provide successful applicants from NIH’s Clinical Center with 50 to 300 exome sequences derived from patient samples. The National Human Genome Research Institute (NHGRI) says it will provide the next-generation sequencing services through the Intramural Sequencing Center. The samples will be collected from the Clinical Center, and investigators who receive data through the CCGO will also receive help with handling the resulting data and interpret and return the genetic results to patients. The CCGO will offset sequencing costs by using funds from the NIH Office of Intramural Research, and the Intramural Sequencing Center will provide discounts for the CCGO projects, NHGRI says. “We’re trying to jump-start genomic medicine,” said Michael Gottesman, NIH’s deputy director for intramural research.

Then the practice of genomic medicine at the Clinical Center can evolve over time so that it becomes both more generalized and more useful for researchers and patients.”

From "New Initiative to Boost Use of Genomics at NIH Clinical Center" GenomWebDaily News (04/22/14)

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New Center for Translational Environmental Health Research Takes Team Science Approach to Address Environmental Health Issues

The Texas A&M University System, Baylor College of Medicine, University of Houston, and the Texas Medical Center have partnered to create the Center for Translational Environmental Health Research, which will be the newest of the U.S. National Institutes of Health’s 21 National Centers of Excellence in Environmental Health Science. More than 25 percent of deaths and disease worldwide are related to environmental health, and the new center will focus on integrated research, translating research advances into practice, and community outreach and engagement. Other institutes are lending their research and knowledge to the center’s cross-institutional team as well.

From "New Center for Translational Environmental Health Research Takes Team Science Approach to Address Environmental Health Issues" Texas A&M University (04/22/14)

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As Genetics Moves to the Clinic, Pathogenic Variants Still Subject to Doubt and Debate

Sherri Bale and colleague John Compton left the National Institutes of Health (NIH) in 2000 to form GeneDx, a commercial genetic diagnostics lab in Maryland that initially focused on rare hereditary disorders but has since expanded into other complex diseases. The benefits of genetic diagnostics include the ability to make diagnoses that no other method can dependably provide and to customize treatments for a patient’s unique profile. But a key challenge is that genetic tests must deal with variants that may arise in less than one patient out of 10,000. A mid-size gene panel may have hundreds of variants found in the course of testing, which must be individually interpreted based on things like population frequency, similarity to other variants known to be pathogenic, location within the gene, and whether they segregate with disease if samples from a patient’s family members are available. Heidi Rehm—a member of the ClinGen project, an NIH-funded consortium of genetic researchers seeking to curate variant data from clinical labs and databases throughout the world—is also a lead contributor for ClinVar, a variant database formed about a year ago under the National Center for Biotechnology Information. ClinVar is the first comprehensive genetic database developed specifically for use in a clinical setting, aiming to catalog every variant found in genetic diagnostics and research studies, as well as a consensus decision on whether the variant is pathogenic, benign, or in between. Rehm points to the importance of having a comprehensive report for each variant, noting that “the interpretation of this is really tricky for physicians, even those who are well-versed in genetics.”

From "New Initiative to Boost Use of Genomics at NIH Clinical Center" GenomWebDaily News (04/22/14)

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https://actscience.site-ym.com/?May2014Connection
NIH’s NINDS Gets Back to Research Basics

The National Institute of Neurological Disorders and Stroke (NINDS) is working to turn around a sharp decline in basic research funding. From 1997 to 2012, NINDS expenditures on basic research as a fraction of its total competing research budget declined from 87 percent to 71 percent. NINDS is taking several steps to counteract this trend, including conveying more interest in basic research, making sure investigators understand that “basic-basic” grant applications do at least as well as in peer review as disease-related applications, and taking the importance of fundamental research into consideration when choosing which grant applications with scores beyond the payline to fund. However, Robert Finkelstein, director of the NINDS Division of Extramural Research, says that NINDS will not prioritize areas of basic research for greater funding. “It is important that the institute allow the community to determine what the most promising areas of investigation should be,” he notes.

Bigger Than Big Data: The Key to Successful Translational Science

Two key challenges for successful translational science are “enabling collaboration whilst facilitating information sharing, and the ability to better interpret multiple different omics data (multi-omics),” writes Robin Munro, director of Translational Sciences at IDBS. To better interpret multi-omics data, hospitals and research and development organizations are trying to eliminate cultural barriers that prevent scientific data collaboration. This includes pharmaceutical R&D groups reorienting themselves to become more responsive and able to bring their teams closer physically and in mindset. Data silos are also becoming more integrated, while Big Data and open data are being increasingly shared between academic medical centers and pharma, including competitive information. Although patients are more involved in how translational science is changing, accountability and ethics rules still present bottlenecks. IT systems can help resolve matters of consent, data privacy, and security to complement collaboration agreements and contracts. Bioinformatics also is shifting from a genome-centric approach to a more comprehensive understanding of the broader biological process. For example, Munro notes, Segal Cancer Centre’s multi-omics datasets are turning to a new, more structured approach to data capture and manipulation that will enable researchers to make better sense of their data in the right context.

BIRAC & Wellcome Trust Jointly Look to Identify Research in Translational Medicine, Infectious Disease Diagnostics

India’s Biotechnology Industry Research Assistance Council (BIRAC) is partnering with Wellcome Trust to seek proposals in translational medicine in the area of diagnostics for infectious diseases. BIRAC and Wellcome Trust will reach out to scientific labs, research institutes, medical institutions, and bio-pharma companies for the initiative. Planned projects must meet such criteria as affordability in order to maximize widespread implementation and for realistic possibility of downstream uptake by follow-up partners. Potential applications should bring together researchers from both public and private sectors and scientific disciplines in areas like medicine, physics, chemistry, computing, engineering, and materials sciences. The partnership encourages cross-border research and development collaborations to promote delivery of affordable healthcare technologies for India and other emerging markets.

Grant Opportunities

American Epilepsy Society Seed Grant Program

The American Epilepsy Society Seed Grant Program is designed to foster collaborative interactions between two or more established investigators to make future grants related to epilepsy more competitive for larger awards, and to spur multi-investigator projects. The program will provide seed monies to investigators, small awards that are meant to enable information exchange/technology transfer, travel of postdoctoral fellows between laboratories, and modest supplies for the project. No more than five one-year grants in the amount of $20,000 will be awarded each year. With three rounds of consideration each year, the next two application deadlines are June 27 and September 26, 2014.

Society for Hematopathology Berard-Dorfman Founders Award

The Society for Hematopathology has issued a call for nominations for The Berard-Dorfman Founders Award. The award was established to commemorate Drs. Costan W. Berard, and Ronald F. Dorfman, who co-founded the organization in 1981. Potential nominees include young investigators with excellence in basic or translational research based on a body of work or paper, and mid-career to senior individuals who have demonstrated excellence in areas of hematopathology, such as teaching, humanitarian contributions, and leadership. Each award will consist of a certificate and cash prize of $750. Nomination letters are due by Sept. 1, 2014.
Innovative Programs to Enhance Research Training (IPERT) (R25)

The National Institute of General Medical Sciences has issued a funding opportunity announcement (FOA) seeking applications that propose creative and innovative educational activities to complement or enhance the training of a workforce to meet the country's biomedical, behavioral, and clinical research needs. The FOA encourages activities with a primary focus on courses for skills development, structured mentoring activities, and outreach programs. There are no specific budget limitations. The scope of the proposed project should determine the project period; however, the maximum period to be funded is five years. Applications are due by June 9, 2014.

From "Innovative Programs to Enhance Research Training (IPERT) (R25)"
NIH Grants (04/10/14)

Americas Hepato-Pancreato-Biliary Association Research Grant

The Americas Hepato-Pancreato-Biliary Association (AHPBA) Research Grant aims to provide the opportunity for a resident or fellow to spend one year of full-time research under the mentorship of an AHPBA member. Eligible applicants include residents or fellows who have completed at least two years of post-graduate training in a surgical discipline. The research can be clinical, outcomes, translational, or basic science, but the focus must be on the liver, pancreas, or biliary tree. The amount of the award is $30,000. Applications are due by Jan. 5, 2015.

From "Americas Hepato-Pancreato-Biliary Association Research Grant" Americas Hepato-Pancreato-Biliary Association (04/01/14)

National Ataxia Foundation Pioneer SCA Translational Research Award

The National Ataxia Foundation has announced its Pioneer SCA Translational Research Award. The one-year grant of $100,000 focuses on research investigations that will facilitate the development of treatments for the Spinocerebellar Ataxias (SCAs). Letters of intent are due by Aug. 15, 2014.

From "National Ataxia Foundation Pioneer SCA Translational Research Award" National Ataxia Foundation (04/01/14)