Translating research into better health

focus on

IMPACT

2009
ANNUAL
REPORT

Tufts | CTSI

Tufts Clinical and Translational Science Institute

A collaboration of organizations, founded by Tufts Medical Center & Tufts University.

TUFTS CTSI ANNUAL REPORT 2009
May 1, 2009 – April 30, 2010

contents

TUFTS CTSI LEADERSHIP

Harry P. Selker, MD, MSPH

Dr. Selker is Dean of the Tufts CTSI and Principal Investigator of the NIH Clinical and Translational Science Award (CTSA) that supports it. He is Professor of Medicine at the Tufts University School of Medicine and Executive Director for the Institute for Clinical Research and Health Policy Studies at Tufts Medical Center, where he is also Chief of the Division of Clinical Care Research in the Department of Medicine and Director of the Center for Cardiovascular Health Services Research. He was Founding Director from 1999-2010 of the MS/PhD Graduate Program in Clinical Research at the Tufts Sackler School of Graduate Biomedical Sciences. He has served on boards and as an officer for a variety of professional and educational organizations, including in 2010-2011 as President of the Society for Clinical and Translational Science, and as President-Elect for the Society for General Internal Medicine. He has been an active advisor in the design of clinical research graduate and training programs in the United States and internationally, and is an active advocate and advisor in Washington in support of clinical effectiveness research, research training, and improvements in the healthcare delivery system. He maintains his medical practice at the Pratt Diagnostic Clinic at Tufts Medical Center.

June S. Wasser, MA

Ms. Wasser is the Tufts CTSI Administrative Director responsible for implementing and maintaining all infrastructure and management processes as well as strategic planning. She actively develops Tufts CTSI programming initiatives including public outreach and utilizing technology for distance learning and communications. Her career has spanned both the non-profit and for-profit worlds. Recently, Ms. Wasser worked as a contractor to the Department of Defense, educating health professionals in the military. Prior to this, she held senior level management positions at the American College of Cardiology Foundation, WebMD, and the American Association of Neurological Surgeons directing continuing medical education initiatives. She also held administrative positions at Northwestern University Medical School and the University of Chicago Comptrollers' Office. Her professional experience includes operations, finance, research administration, business development, strategic planning, and medical education programming. She has participated in numerous professional society activities and national conferences related to the topics of continuing medical education and distance learning. Ms. Wasser earned a Bachelor of Arts at the State University of New York at Buffalo and a Master of Arts at the University of California at Los Angeles. She also completed two additional years of advanced graduate studies at the University of Chicago.

John L. Griffith, PhD

Dr. Griffith, founder of the Biostatistics Research Center (BRC), is Associate Professor of Medicine at Tufts University, holds a faculty appointment in the Sackler School of Graduate Biomedical Sciences, and is a member of the Special and Scientific Staff at Tufts Medical Center. He directs the Research Design Center (RDC) at Tufts CTSI. He was the Principal Investigator for a grant comparing different modeling methods for prediction of medical outcomes (R01-LM05607), and for another grant developing and investigating appropriate statistical procedures for assessing predictive model performance (R03-HS09561). Dr. Griffith is currently Co-Principal Investigator for the Data Coordinating Center for the Immediate Trial and he coordinates data cores for the Nutrition and Memory in the Elderly project and the Puerto Rican Center on Health Disparities. He teaches in the Clinical Research Training Program at the Sackler School of Graduate Biomedical Sciences, and is a member of the Faculty Advisory Committee. In addition, Dr. Griffith is a member of the Tufts Institutional Review Board (IRB). Dr. Griffith is also a Portal Director of the Tufts CTSI.

Laurel K. Leslie, MD, MPH

Dr. Leslie is an Associate Professor at Tufts University School of Medicine, with a primary appointment in the Department of Medicine and holds a secondary appointment in Pediatrics. She is an active faculty member in the Sackler School of Graduate Biomedical Sciences. She is also the Director of the Program for Aligning Researchers and Communities for Health within Tufts CTSI. Dr. Leslie received her BA from Harvard University and her MD from the University of North Carolina at Chapel Hill. She completed her residency training in Primary Care Pediatrics and fellowship training in Developmental-Behavioral Pediatrics at the University of California, San Francisco, where she also served as Chief Medical Resident. Subsequently, she served as a Research Scientist at the Child and Adolescent Services Research Center (CASRC) at Rady Children's Hospital and Health Center in San Diego. While at CASRC, Dr. Leslie received a Masters of Public Health in Epidemiology and Biostatistics at San Diego State University.

Andrew G. Plaut, MD

Dr. Plaut is a staff physician (internal medicine) at Tufts Medical Center, specializing in digestive diseases. He sees patients, does basic and translational research, and works as a Portal Director of the Tufts CTSI. His research interests are in pathogenic microbiology and immunology, and he was Director of the NIH sponsored Silvio O. Conte Digestive Disease Core Research Center at Tufts from 1986 through 2007. Dr. Plaut's translational research has been in two areas, the main one being the structure and function of IgA, the principal form of antibody in secretions and in human milk. His specific interest is in the few diseases that are caused by the deposition of IgA into human tissues, with emphasis on the disease IgA nephropathy. This is a major cause of renal failure worldwide, and the prototype of IgA deposition illnesses.

focus on

IMPACT

MESSAGE FROM THE DEAN

The call to "translational science" in 2005 by Elias A. Zerhouni, MD, then Director of the National Institutes of Health (NIH), envisioned a transformation of the entire biomedical research enterprise through the creation of Clinical and Translational Science Awards (CTSAs). The purpose of CTSAs is to greatly improve and accelerate translational research, with the ultimate focus on the impact that biomedical research in general, and NIH in particular, should have on the health of the public. The new NIH Director, Francis Collins, MD, Ph.D, has underscored this focus on impact when, among his five major themes for NIH he included translating research into medical care and supporting health care reform. He also emphasized the mission of CTSAs at the CTSA Steering Committee meeting in October 2010, when he encouraged us to engage in "big science" that is innovative, groundbreaking, collaborative, and results in rapid access to the public domain. He challenged the CTSAs to be the leaders of "big science" and to focus on having impact on health.

Nationally, there are now 53 CTSAs, and there will ultimately be 60, and all are called to respond to this national mission. At Tufts CTSI, we have long had a focus on impacting real world clinical practice and public health and public policy. With receipt of our CTSA grant in 2008, our Tufts extrovert personality has supported our leveraging the strengths and passions of our institution and its partners to create an infrastructure that facilitates such research and to undertake projects that catalyze impact.

This annual report provides a peek at our accomplishments in year 2 of our grant, a glimpse of some of the people and projects we assist. Much of this year we established a new research and service infrastructure and encouraged adoption of a new translational framework for biomedical research. At times it has been messy, has required extraordinary efforts outside areas of long-time comfort, and the rewards have come slow, but the vision does not waver. We are enormously grateful for the perseverance and continuing hard work of our faculty, staff, and community members.

In addition to the work and programs in this Annual Report, in the coming months, we will continue to expand our impact by growing our Clinical and Translational Science Graduate Program, including the receipt of a new NIH award for training junior faculty to do comparative effectiveness research (CER) and a new web-based CER Survey course. We are developing innovative public education programs with our partner, Museum of Science, Boston, to teach our community about the effects of health disparities and the benefits of participating in clinical research. We are starting a program of High Impact Projects, advised by a new multidisciplinary Scientific Advisory Committee, that are intended to take advantage of special strengths and opportunities of Tufts and our partners, and will focus on accelerating the delivery of our research outcomes into real world impact for our patients. The list of plans and projects for the coming year goes on far further, and we are excited about sharing them with you in our next Annual Report. It is an exciting time to be involved in the translational transformation of the American biomedical science enterprise, and we are delighted to be in the right place at the right time to make a difference.

Sincerely,

Harry P. Selker, MD, MSPH
Dean, Tufts CTSI

"The pilot award gave us the funds we needed to develop good preliminary data for a larger NIH grant application. It is just the beginning."

Impacting Pilot Studies

Depending on the scope of existing research on their projects, the Tufts CTSI Pilot Studies Program awards investigators either Catalyst or Planning Grants. **Catalyst Grants** are provided for the development of sufficient preliminary data to secure future extramural funding. **Planning Grants** provide an early mechanism through which a minimum of two scientists can develop partnerships and initial hypotheses or study questions for future eligibility for a Catalyst Award or other translational pilot programs.

Two striking examples of such awards follow.

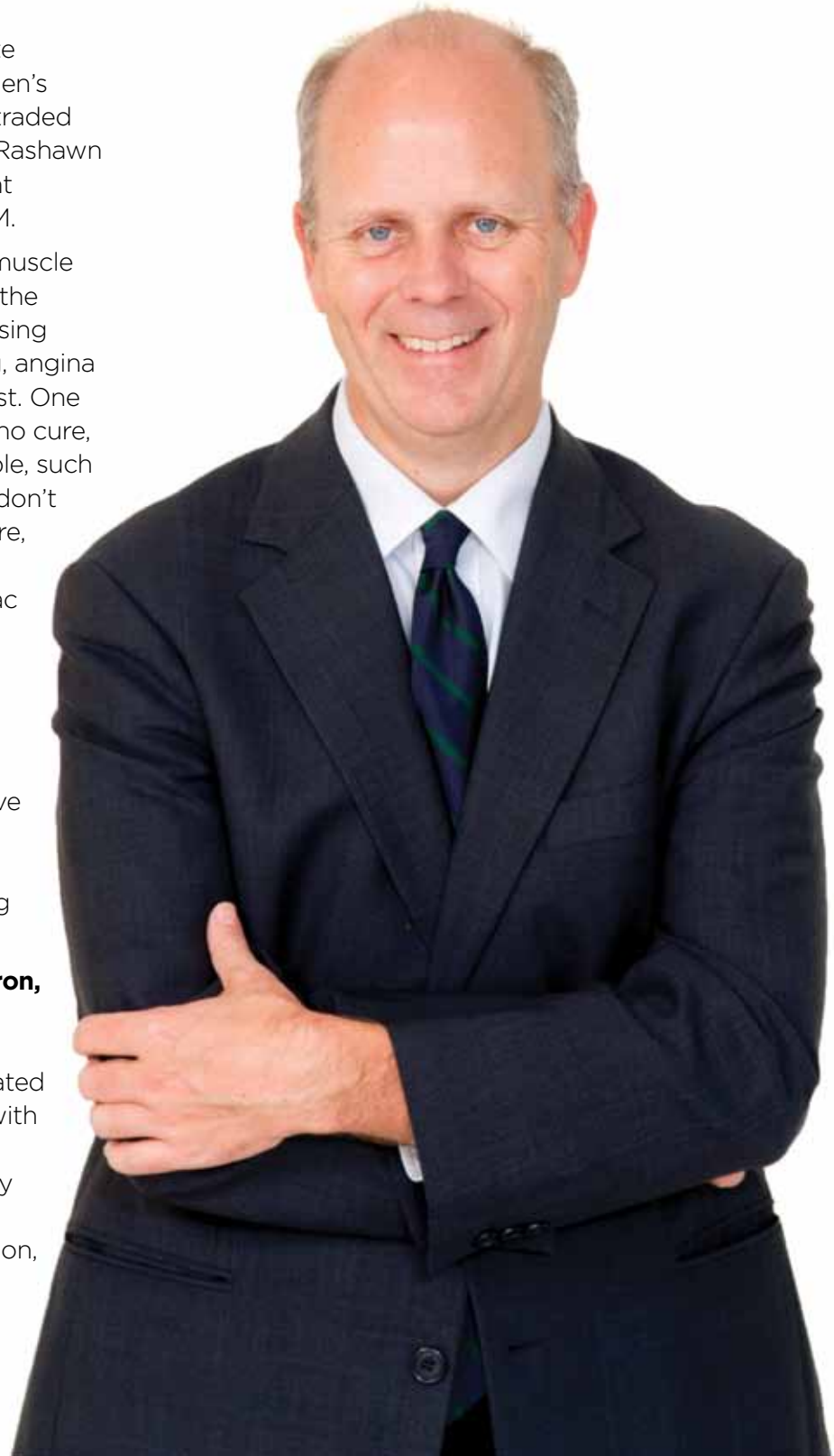
PILOT STUDIES

Genetic Modifiers of Hypertrophic Cardiomyopathy

Hypertrophic cardiomyopathy or HCM for short. Although its name might not be familiar, stories about the young athletes, who die suddenly of HCM, certainly are. Alexei Andreyevich Cherepanov had just finished skating on the ice, was 19 years old, and was the NY Rangers 1st pick when he suddenly collapsed and died in 2008. Marathon runner Ryan Shay, 28, had a similar fate about 5 1/2 miles into the 2007 U.S. men's marathon Olympic trials. Soon-to-be traded to the Knicks, basketball star Cuttino Rashawn Mobley announced his early retirement because of being diagnosed with HCM.

In HCM the mass of the left ventricle muscle enlarges or "hypertrophies," affecting the cardiac contractile apparatus and causing shortness of breath, dizziness, fainting, angina pectoris and also sudden cardiac arrest. One in 500 people have HCM, yet there is no cure, and only palliative treatment is available, such as beta blockers and diuretics, which don't change the cause of HCM. What's more, while it is widely understood that genetic mutations affecting the cardiac contractile apparatus are responsible for HCM, we do not understand why carriers of gene mutations affecting muscle cell contractions show up in people differently. HCM can lead to significant morbidity, such as congestive heart failure and death, or sometimes no symptoms. But we cannot predict who will get sick from an HCM causing gene mutation and who won't.

Gordon Huggins, MD, and Martin Maron, MD, hope to change that. Given a Tufts CTSI Pilot Award in 2009, these investigators examined two genes related to the cardiac contractile apparatus, with the hope that eventually, according to Dr. Huggins, "we will be able to identify the genes that are biologically and plausibly related to this deadly condition, provide clinical markers for prognosis through genetic testing, and ultimately know the genetic pathway that may be responsive to other treatments. The pilot award gave us the funds we needed to develop good preliminary data for a larger NIH grant application that we just submitted. It is just the beginning."



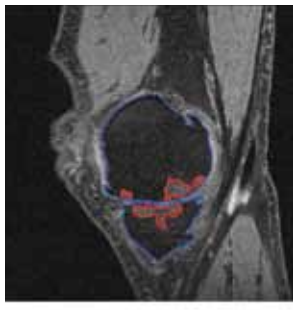
Gordon Huggins, MD, AssistantProfessor, Tufts University School of Medicine

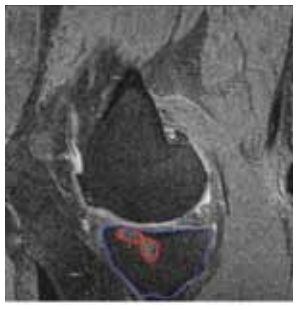
Image Processing Tool for Quantification of Knee Osteoarthritis in MRI Data Stacks

Our Pilot Awards also support potential diagnostic advancements that can change not only life for physicians and medical technicians as they know it, but ultimately perhaps for our patients as well.

Eric Miller, PhD, Professor of the Department of Electrical and Computer Engineering (ECE) at Tufts University and **Timothy McAlindon, MD, MPH**, Professor, Tufts University School of Medicine and Chief of Rheumatology at Tufts Medical Center received a pilot award in 2009 for their extraordinary work developing a set of processing tools for the semi-automated quantifying of bone marrow lesion structure from three dimensional stacks of MRI imagery of the human knee. Their practice-setting software will allow for the evaluation of osteoarthritis (OA) progression and help the development and testing of interventions for this disorder. Moreover, it will do all that in record time. Twenty-one million people are afflicted with this disease so the need for effective treatments is critical. Currently, only humans are able to actually perform the image analysis needed to the level required for the extraction of meaningful statistics both across patients and across time.

This analysis is onerously time consuming for the physician or medical technicians as they sort through multiple slice MRI images and put them through an algorithm's paces. The effort involved in manual image analysis is currently a major barrier to progress in the OA field. The use of Drs. Miller and McAlindon's sophisticated modeling and algorithmic methods from the field of image processing can substantially reduce the amount of time required for this task.





Dr. McAlindon is witnessing first-hand what such a revolutionary software can mean. He runs a clinical center as part of The Osteoarthritis Initiative (OAI), a multi-center, longitudinal, prospective observational study of knee osteoarthritis. Dealing with radiological (x-ray and magnetic resonance) images and a biospecimen repository from close to 5000 men and women ages 45-79 has not been easy given the arduous hands-on analysis that the participating centers, like Dr. McAlindon's, must combat. Now there is hope that such time-consuming MRI analyses will be a thing of the past.

Their practice-setting software will allow for the evaluation of osteoarthritis (OA) progression and help the development and testing of interventions for this disorder. Moreover, it will do all that in record time.

IMPACTING RESEARCH

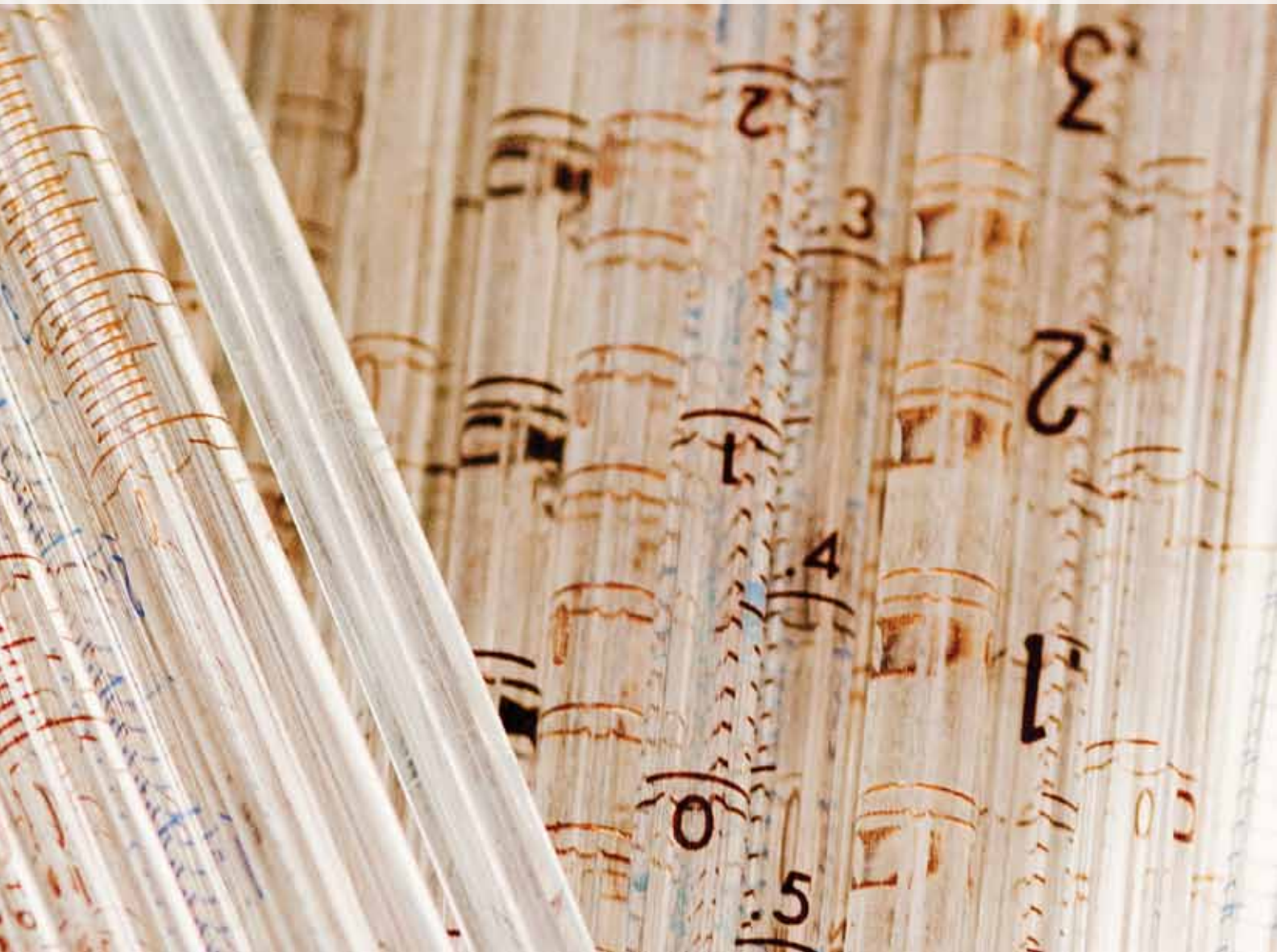
PILOT STUDIES

Timothy McAlindon, MD, MPH, Professor, Tufts University School of Medicine and Chief of Rheumatology at Tufts Medical Center (left)

Eric Miller, PhD, Professor of the Department of Electrical and Computer Engineering (ECE) at Tufts University (right)

Impacting Clinical Trials

Through our Clinical & Translational Research Center (CTRC) and Core Laboratory, we offer the gamut of services for clinical trials involving inpatient and outpatient adult, pediatric, and neonatal subjects. In addition to our team of specialized nurses and study coordinators, we provide expert assistance with all clinical patient care aspects of protocol development. Moreover, the research laboratory offers investigators specimen processing and storage, ELISA-based and RIA-based assays, trace element testing by Atomic Absorption Spectrometry, HPLC separation assays, and DNA analyses.



Clinical and Translational Research Center

This past year, two investigators using the CTRC and Core Lab were **Anastassios Pittas, MD**, Associate Professor of Medicine, Tufts University School of Medicine, Division of Endocrinology, Diabetes and Metabolism, Tufts Medical Center and **Christine Wanke, MD**, Professor, Tufts University School of Medicine and Tufts School of Veterinary Medicine. Though their studies targeted vastly different populations, individuals at risk for diabetes and HIV respectively, both investigators were helped signficantly by CTRC nurses who performed a range of clinical services.

In 2009, **Dr. Pittas** and the CTRC joined forces to examine whether vitamin D supplementation with or without calcium improves glucose levels in patients at risk for diabetes. In a 4-visit 4-month long randomized controlled trial, funded by the National Institutes of Health, CTRC staff performed measurements of vital signs and conducted the intravenous glucose tolerance and oral glucose tolerance tests, including phlebotomy and processing of blood specimens for the necessary metabolic outcomes. The CTRC Core Lab contributed by performing measurements of all hormonal assays (e.g. Insulin, adiponectin, intraleukin-1). The Tufts Medical Center Investigational Drug Service was instrumental by storing and providing the study medications to the CTRC staff, maintaining the randomization code and the double-masked study design. In a second study Dr. Pittas conducted at the CTRC the association between glucose levels in typical life and appetite and energy intake was examined in healthy young participants. In this study, CTRC nurses connected participants to a continuous glucose monitoring device, which is an innovative way of continuously monitoring glucose concentration for 3 days, and provided education on the appropriate use of the device.

Similarly, CTRC nurses worked with study coordinators on two of **Dr. Wanke's** studies. In a study examining the impact of Omega 3 fatty acids on vascular function and cIMT in HIV and another study determining the factors associated with cardiovascular disease in HIV-infected individuals, CTRC nurses were a crucial first point of contact for the participants' clinic visits, ensuring that this vulnerable patient population felt immediately comfortable and safe by greeting them and bringing them to their rooms within the CTRC. The nurses also measured their vital signs and conducted and prepared blood draws for analysis.

CLINICAL TRIALS

Core Laboratory

This past year the Core Laboratory provided investigators like Oral Pathologist **Lynn Solomon, DDS, MS**, Associate Professor, Department of Oral Pathology, Tufts University School of Dental Medicine, and Infectious Disease expert **Patricia Hibberd, MD, PhD**, Professor of Medicine, Pediatrics and Public Health, Tufts University School of Medicine, with dependable assay services, innovative strategies and technological advancements.

After a bad stroke of luck ruined 50 serum samples and the supply of recombinantly produced p63 protein that were critically needed for her study related to the diagnosis of chronic ulcerative stomatis (CUS), Dr. Lynn Solomon turned to Anne Kane, MD, Assistant Professor, Tufts University School of Medicine, to see if Dr. Kane's lab could re-produce the essential protein she needed for the study. CUS is a painful, debilitating mucocutaneous condition that primarily affects the oral mucosa with chronic exacerbating and unremitting ulcerations. Diagnosis is difficult, however. It requires a surgical biopsy and there are several other oral diseases, such as oral lichen planus, that have a similar appearance in routinely processed tissue. CUS diagnosis requires immunofluorescence microscopic examination, i.e. detection of specific patient autoantibodies to p63 protein in biopsied tissue. However, even when that is possible, the treatment of CUS is also very specific: CUS responds best to hydroxychloroquine; corticosteroids that work effectively for other oral diseases are not as effective for CUS.

The meeting with Dr. Kane was serendipitous for Dr. Solomon, because Dr. Kane is also a Tufts CTSI Navigator charged with helping investigators connect to other investigators, faculty, and core research services at Tufts. Dr. Solomon had developed a novel test that uses serum samples from CUS patients for a simpler, less invasive, more accurate, less costly, but more precise CUS diagnosis. However after moving to Tufts, she was not able to replicate the results of her ELISA (Enzyme-Linked ImmunoSorbent Assay) with her new CUS serum samples. After hearing about the months Dr. Solomon had spent tweaking and funding out of her own pocket the assays, only to end up with nonconclusive data because of changes in her protocol, Dr. Kane quickly put her in touch with the Tufts CTSI Core Lab. Working with our Scientific Consultant, Albert Tai, PhD, Dr. Solomon questioned whether the lab could optimize her ELISA test for p63 antibodies. With the Core Lab's state-of-the-art ELISA machine, Dr. Tai and his team were able to perform the serum analyses and analyze the data from Dr. Solomon's new CUS serum samples. What had once wasted hours and dollars now was done quickly and accurately. "The great thing about the Core Lab is I can trust the results they give me from the sample analyses," Dr. Solomon says. "They are simply very good at what they do." Looking ahead, Dr. Solomon's results could bring about a translational change in dental practice itself with a new diagnostic test that could start the correct treatment earlier for CUS patients.

Similarly, Dr. Patricia Hibberd has depended on the Core Lab for the highly technical preparation of samples for sophisticated analyses of the gastrointestinal and respiratory microbiota to support her translational studies that she began at Tufts and continues to conduct at the Core Lab in her present position at Massachusetts General Hospital. The Core Lab at Tufts prepares samples for Dr. Hibberd's cutting edge translational studies using 454 pyrosequencing, in collaboration with the NIH Human Microbiome Road Map initiative, and RNA paxgene studies of mRNA gene expression in Phase I mechanistic clinical trials under investigator initiated INDs. Our work for Dr. Hibberd continues to support 4 NIH grants (3 U01 grants and 1 K24 grant).

"The great thing about the Core Lab is I can trust the results they give me from the sample analyses. They are simply very good at what they do."

Lynn Solomon, DDS, MS,
Associate Professor,
Department of Oral Pathology,
Tufts University School
of Dental Medicine

CLINICAL TRIALS

GRADUATE PROGRAM

In 2009 we worked hard to deliver the best educational programming on clinical and translational science to our investigators and the community. From our renowned Sackler School of Biomedical Sciences Graduate Program in Clinical and Translational Science, to our nationally funded fellowships, to our expert workshops and seminars, we strove to provide a full spectrum of education and career development.

More than anything else, though, it is our students and our investigators who honor our programs most with their continuous desire to push the envelope, at times with dramatically new ideas of how we can help our patients.

Here we present a few examples of our 2009 educational achievements.

> "If we are to reliably identify germline risk factors for colorectal cancer, we should be looking at the genetic structure *not* of the tumor, but of healthy cells."

Graduate Program in Clinical and Translational Science

Impacting Colorectal Cancer Research

Tufts CTSI Fellow and second year student in Tufts CTSI's Clinical and Translational Science Graduate Program, **Issa Dahabreh, MD**, wondered why the TP53 gene, which is a tumor suppressor, has been so extensively researched as a potential risk factor for colorectal cancer (a disease that has been suggested to have a significant genetic component) and yet to date there have been no conclusive findings. Identifying 23 eligible case-control studies investigating the association between TP53 and colorectal cancer that were published before July 2009, Dahabreh and his co-investigators concluded through their meta-analysis that no association could be identified. Their findings, published in *Cancer Epidemiology Biomarkers and Prevention*, argued that the studies to date have been hampered by a lack of rigorous genotyping methods and genotyping artifacts induced by the use of tumor tissue as the DNA source. Biologists for some time have recognized that DNA obtained from tumor tissue may exhibit loss of heterozygosity, or in other words, the tumor tissue is likely to have a different genetic structure than elsewhere in the body. Yet, Dahabreh found that several of the studies he examined had used tumor tissue in their analysis. "We know from the Biology literature that we should not use tumor tissue when the focus is detecting associations between an individual's constitutional genetic makeup and cancer risk. If we are to reliably identify germline risk factors for colorectal cancer, we should be looking at the genetic structure *not* of the tumor, but of healthy cells."

Impacting Kidney Disease Patients

Chronic kidney disease (CKD) is a progressive, non-reversible disease, leading to fibrosis and ultimately an end stage of dialysis and kidney transplant. And it's by no means rare. An estimated 11.5 percent of adults age 20 or older (23 million adults) in the United States have evidence of CKD. Yet little is known about genetic disposition that increases an individual's susceptibility to CKD. One of Tufts CTSI's K23 fellows, **Madhumanthi Rao, MD**, an Assistant Professor of Medicine at Tufts University School of Medicine and Nephrologist at Tufts Medical Center, began a study this past year that posed the question: Is there a gene that regulates fibrosis and if so, could a treatment be developed that alters that gene, thereby ultimately slowing the progression of the disease? Dr. Rao knew that animal studies had already determined that the most important protein regulating fibrosis in CKD was TGF-β1. Rao's study actually involved three separate study designs with three different study populations: a cohort study of 180 patients with CKD at the Tufts Medical Center nephrology clinic; a case-control study of 1,500 patients with Type 1 (juvenile) diabetes from the Joslin Clinic, who were living with and without CKD; and a third family-based association study of the parents of roughly half the patients recruited from the Joslin clinic. Urinary and plasma analysis of TGF-β1 levels were conducted in the Tufts Medical Center patients and genotyping was done with both the Tufts Medical Center patients and the Joslin patients and participating parents. Preliminary analyses have already shown that there is a correlation between TGF-β1 levels and degree of fibrosis. As Dr. Rao prepares her results for publication, she is already posing the next questions: Now that we know a pathway for the progression of CKD, how can we change that genetic pathway? Is it possible to actually stop CKD from progressing altogether?

MENTORED RESEARCH

Tufts CTSI offers several Mentored Research Scholar Programs to develop the research skills of physicians so that they may become independent clinical and translational investigators.

As a recipient of the KL2 award, Ceglia has made significant progress in her research work and training as a translational investigator, obtaining rigorous instruction in study design, clinical trials, biostatistics, and epidemiology through the Tufts CTSI Graduate Program in Clinical and Translational Science at the Tufts University Sackler School of Graduate Biomedical Sciences.

Mentored Research Scholar Programs

In 2009, Tufts CTSI awarded a KL2 scholarship to **Lisa Ceglia, MD**. This Scholars Program provides rigorous didactic training, mentoring and salary support to highly-qualified junior faculty to conduct multidisciplinary clinical/patient-oriented research for a period of two years. This program is specifically designed to further the goals of the Tufts CTSI, linking across Tufts-affiliated hospitals/campuses and across disciplines.

Dr. Ceglia is committed to a career in translational research with a focus on the role of vitamin D in musculoskeletal health in older adults. Over the past year as a recipient of this award, Dr. Ceglia has made significant progress in her research work and training as a translational investigator, obtaining rigorous instruction in study design, clinical trials, biostatistics, and epidemiology through the Tufts CTSI Graduate Program in Clinical and Translational Science at the Tufts University Sackler School of Graduate Biomedical Sciences. She has initiated training in project-related laboratory techniques in skeletal muscle histology and analysis and completed a pilot study on vitamin D supplementation that is being utilized as preliminary data in a K23 application. She has also designed and initiated a study in aged rats to evaluate the effects of vitamin D deficiency on pathways of muscle protein synthesis and breakdown.

KL2 Awardee Lisa Ceglia, MD

COMMUNITY

In 2009, Tufts CTSI's Center for Aligning Researchers and Communities for Health (ARCH), under the direction of Laurel Leslie, MD, MPH, awarded community research fellowships to 10 community-based organizations in the Greater Boston area.

The goal of the ***Building Your Capacity and Advancing Research Through Community Engagement Program*** is to build research capability in community-based organizations so that they can participate fully in community engaged research. Throughout the one year fellowship, we provide fellows with relevant, interactive training sessions that utilize local examples and resource people. Fellows are then supported as they incorporate research (or research partnerships) into their practice.

IMPACTING THE COMMUNITY

Through five training sessions, fellows gain knowledge and skills about the spectrum of community involvement in research, with a focus on Community-Based Participatory Research (CBPR), and also complete education requirements for human subjects research. Organizations likewise build their capacity to engage in research with academic partners.

In 2009, the following organizations participated in the first year of the program:

- **Boston Chinatown Neighborhood Center**
- **Brazilian Women's Group**
- **Center for Hispanic Policy and Advocacy**
- **Common Pathways: The Worcester Healthy Communities Coalition of Central Massachusetts**
- **Dudley Street Neighborhood Initiative**
- **Health Resources in Action/Boston Urban Asthma Coalition**
- **Multicultural AIDS Coalition**
- **Neponset Health Center**
- **Reaching Out About Depression – Cambridge Health Alliance**
- **The Welcome Project, Inc.**

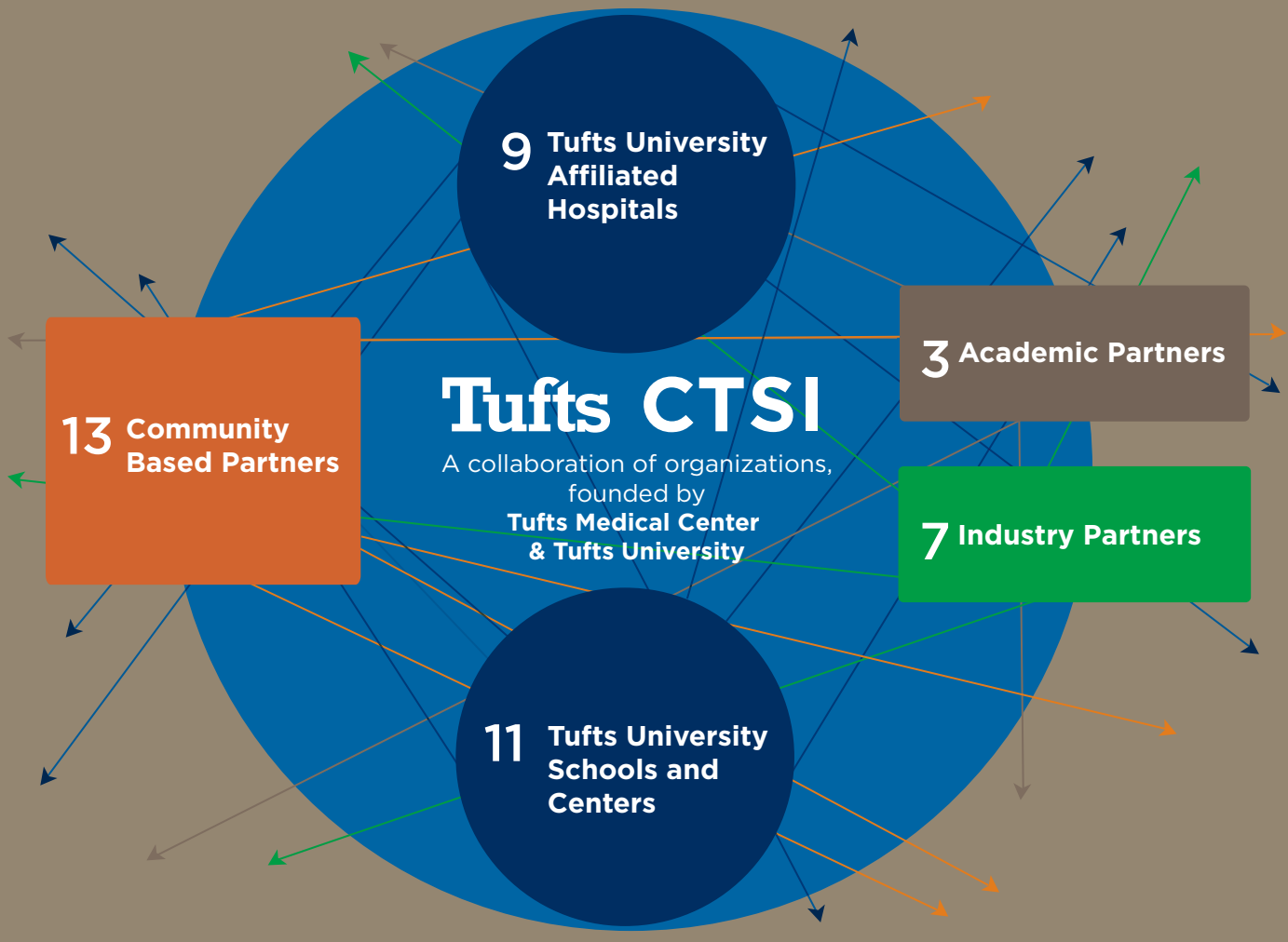
Success of this innovative community-based training program can be witnessed in the new evaluation strategy developed by fellow **Sophia Kim**, Youth Program Director, Boston Chinatown Neighborhood Center, that measures not only the level of youth engagement in its youth programs but parental engagement as well; or the novel research protocol for facilitating partnership conversations that fellow **Chioma Nnaji**, Program Manager of the Multicultural AIDS Coalition, created and will use going forward when researchers approach the Coalition to collaborate; or the new grant proposal drafted by fellow **Liz Tanefis**, Program Associate of Health Resources in Action/ Boston Urban Asthma Coalition, to look at lead asthma triggers in home child care centers, an application that went on to be funded through the Tufts CTSI Pilot Studies Program. These are but a few of the influential examples that have resulted from this landmark community-based training program that continues on.

Beverly Russell, PhD, and Elmer Freedman, MSW, both of Northeastern University, connect with Peg Atkisson, PhD, Tufts University.

2009 also saw the launch of our ***Speed Dating: Forging New Community – University Research Partnerships; A Structured Networking Event***. This half-day event provided a wonderful opportunity for university and community members to network and learn about each other's work. We invited community partners from the Greater Boston area and faculty from Tufts University and Harvard University to attend this event and 100 people did.

After a brief discussion about the potential of academic-community research partnerships, the main activity involved the structured, timed speed-dating activity of meeting as many new partners as possible to make new connections. Researchers and community partners representing a broad range of issues, disciplines, and fields met one-on-one and discussed potential collaborations on different issues such as child development, mental health, asthma, transportation, the environment, and others.

This event was co-hosted by the Jonathan M. Tisch College of Citizenship and Public Service, Tufts Community Research Center, Tufts University Community Relations, and the Harvard Catalyst. Speed Dating was so successful it will now be an annual event and we are exploring mini speed dating events targeted to specific services, such as study design and analysis during which statisticians will be paired with investigators.


9 Tufts University Affiliated Hospitals
3 Academic Partners
13 Community Based Partners
Tufts CTSI
A collaboration of organizations, founded by
Tufts Medical Center & Tufts University
7 Industry Partners
11 Tufts University Schools and Centers

COMMUNITY

Our Affiliated Partners include:

Tufts Schools and Centers

Center for the Study of Drug Development
Cummings School of Veterinary Medicine
Friedman School of Nutrition Science and Policy
Jean Mayer USDA Human Nutrition Research Center on Aging
Sackler School of Graduate Biomedical Sciences
School of Arts and Sciences
School of Dental Medicine
School of Engineering
School of Medicine
Tisch College of Citizenship and Public Service
Tufts Medical Center Institute for Clinical Research and Health Policy Studies

Tufts Affiliated Hospitals

Baystate Medical Center
Caritas Carney Hospital
Caritas St. Elizabeth's Medical Center
Lahey Clinic
Maine Medical Center
New England Baptist Hospital
New England Sinai Hospital and Rehabilitation Center
Newton-Wellesley Hospital
Tufts Medical Center

Academic Partners

Brandeis University Heller School and Schneider Institutes
Northeastern University Bouvé College of Health Sciences
RAND Corporation

Community Based Partners

Asian American Center for Cancer Education and Research
Boston Chinatown Neighborhood Center
Boston Public Health Commission
Center for Community Health Education, Research and Service
Codman Square Health Center/Dorchester House Multi-Service Center
Immigrant Service Providers Group/Health
La Alianza Hispana
Massachusetts Department of Public Health
Museum of Science, Boston
National Kidney Foundation
New England Quality Care Alliance
Partners for a Healthier Community
Somerville Community Health Agenda

Industry/Non-Profit Partners

AMAG Pharmaceuticals, Inc.
Biogen Idec, Inc.
Blue Cross Blue Shield of Massachusetts
Millennium Pharmaceuticals
NeuroLogica Corporation
Pfizer Inc.
Tufts Health Plan

Tufts

CTSI

Tufts Clinical and Translational Science Institute

A collaboration of organizations, founded by Tufts Medical Center & Tufts University.

Highlights of other Tufts CTSI services that impacted investigators and the community in 2009:

focus on IMPACT

HIGHLIGHTS

TUFTS CTSI ANNUAL REPORT 2009

May 1, 2009 – April 30, 2010

A RANGE OF IMPACT

Impacting Protocol and Proposal Development

Our statistical and programming staff supported the development of over 190 protocols and grants in 2009 and also developed and maintained 28 research databases, assisting investigators with the full range of study services, from proposal and protocol development to data management, to data analysis and publication. Staff also provided approximately 5,000 hours assisting investigators from our affiliated partners.

Impacting Study Design and Analysis

Our statistical and design staff also continued to expand our seminars and workshops in study design and analysis. In 2009 staff led 62 such seminars and workshops.

Impacting Research Coordination

Approximately 400 Tufts CTSI affiliated researchers, clinicians, and community advocates have registered for the Tufts CTSI *WorkSpace*, a secure online Microsoft® SharePoint® website, for the coordination and management of 80 research studies and programs.

Impacting Clinical Research

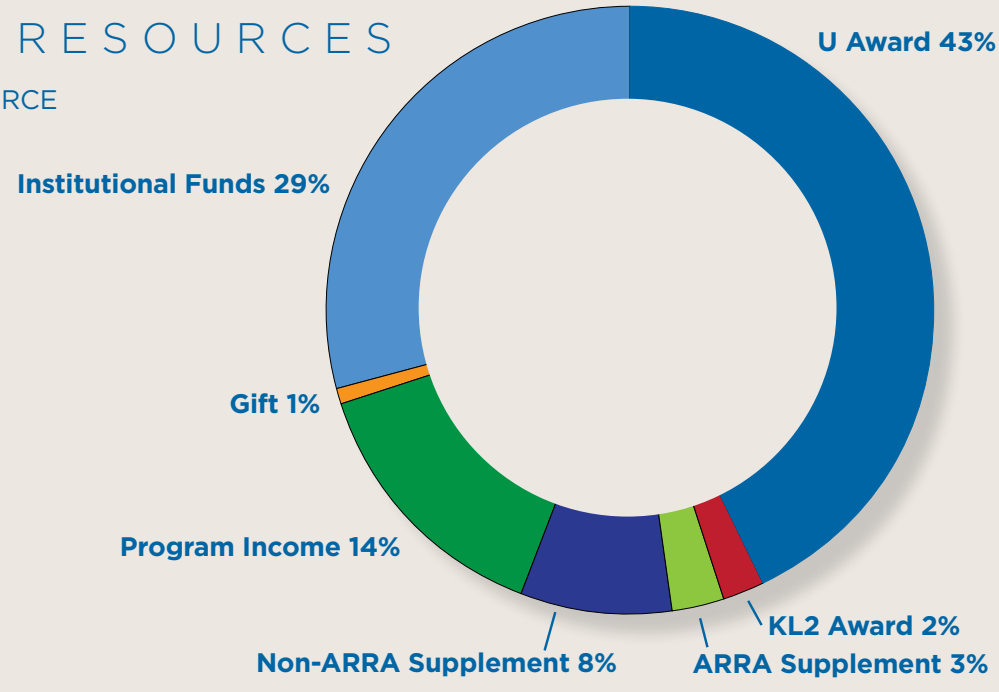
In 2009 Clinical and Translational Research Center Associate Director Tamsin Knox, MD, and Research Subject Advocate Veronika Testa, RN, developed an innovative Internet-based training program in clinical and translational research. Twenty-four students enrolled in this course, which in 2010 will have a broader avenue for dissemination via WebEX, reducing the classroom geographic borders even further.

Impacting Comparative Effectiveness Research

Building on the curricula of our experienced faculty of Predictive and Evidence-Based Medicine, we offered a 2-day intensive course on the tools of evidence-based and value-based approaches for comparative effectiveness research. Twenty-two participants attended the course in 2009, largely from industry and government agencies.

INSTITUTE RESOURCES

YEAR 2 REVENUE BY SOURCE
(TOTAL = $6,457,803)



Tufts | CTSI Tufts Clinical and Translational Science Institute

A collaboration of organizations, founded by Tufts Medical Center & Tufts University.

Offices: 35 Kneeland Street, 11th Floor, Boston, MA 02111
Mailing address: 800 Washington Street, #63, Boston, MA 02111
Tel: 617-636-CTSI (2874) | Fax: 617-636-8023
Email: info@tuftsctsi.org
www.tuftsctsi.org