

Tufts

CTSI

Tufts Clinical and
Translational
Science Institute

A complex network diagram background consisting of numerous interconnected circles of various sizes and colors (blue, orange, green, purple) connected by thin lines, creating a web-like structure.

**ANNUAL
REPORT
2019**

Our Partners and Collaborators

Tufts CTSI's partners and collaborators include an engaged network of hospitals and medical practices, academic institutions, health sciences institutions, community stakeholders, and industry. Each brings unique insights to our support of clinical and translational research, and makes major contributions to that work.

12 Tufts Schools and Centers

Cummings School of Veterinary Medicine
Fletcher School of Law and Diplomacy
Friedman School of Nutrition Science and Policy
Institute for Clinical Research and Health Policy Studies (ICRHPS) at Tufts Medical Center
Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA)
Jonathan M. Tisch College of Civic Life
Sackler School of Graduate Biomedical Sciences
School of Arts and Sciences
School of Dental Medicine
School of Engineering
School of Medicine
Tufts Center for the Study of Drug Development (Tufts CSDD)

6 Tufts-Affiliated Hospitals

Baystate Medical Center
Lahey Hospital and Medical Center
Maine Medical Center
Newton-Wellesley Hospital
St. Elizabeth's Medical Center
Tufts Medical Center

6 Academic Partners

Brandeis University
Massachusetts General Hospital (MGH) Institute of Health Professions
Massachusetts Institute of Technology (MIT)
Northeastern University
RAND Corporation
The Jackson Laboratory

6 Industry/Non-Profit Partners

Blue Cross Blue Shield of Massachusetts
Massachusetts Biotechnology Council (MassBio)
Massachusetts Biotechnology Education Foundation (MassBioEd)
Novartis
Pfizer, Inc.
Tufts Health Plan

10 Community-Based Partners

Action for Boston Community Development (ABCD)
Asian Community Development Corporation (ACDC)
Asian Task Force Against Domestic Violence (ATASK)
Asian Women for Health
Boston Chinatown Neighborhood Center (BCNC)
Center for Information and Study on Clinical Research Participation (CISCRP)
Greater Boston Chinese Golden Age Center (GBCAC)
Health Resources in Action (HRiA)
Museum of Science, Boston (MoS)
New England Quality Care Alliance (NEQCA)

Our Mission

The mission of Tufts Clinical and Translational Science Institute (CTSI) is to stimulate innovative broadly-engaged team science across the translational research spectrum to improve clinical care and health.

We support the conduct of innovative research: from pre-clinical development to initial human studies (T.5), bench research to the bedside (T1), bedside to clinical practice (T2), clinical practice to widespread clinical practice and care delivery (T3), and public benefit and policy (T4). We help improve clinical care and health by providing education, consultations, services, and direct support.

We are supported by a Clinical and Translational Science Award (CTSA) from the National Center for Advancing Translational Sciences (NCATS), part of the National Institutes of Health (NIH). Tufts CTSI was founded in 2008, supported by three sequential CTSA grants, currently NCATS award UL1TR002544.

The Aims of Our Third NIH CTSA Grant

Our current grant began in May 2018 with the following aims:

Aim 1: Create an environment, resources, and services to stimulate and support the full spectrum of clinical and translational research (CTR) by leveraging the diverse expertise and assets of Tufts CTSI partners.

Aim 2: Cultivate broadly-engaged team science, actively including stakeholders, to promote relevant and impactful translation for diverse populations and across the lifespan.

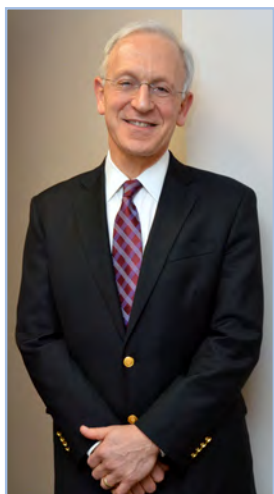
Aim 3: Develop, demonstrate, and disseminate innovations in methods, research process improvement, and evaluation, to advance CTR locally and nationally.

Aim 4: Advance methods and performance of multi-site clinical trials within the Tufts CTSI Clinical Research Network, the NCATS Trial Innovation Network, and in other multi-institutional networks.

Aim 5: Provide outstanding education, training, and mentoring, tailored to different roles and disciplines, to advance a diverse CTR workforce, and share these resources nationally.

MESSAGE FROM THE DEAN

As we close the books on the first year of our third NIH Clinical and Translational Science Award (CTSA) grant, we are reflecting on Tufts CTSI's vision of broadly-engaged team science to improve clinical care and health, and to advance translational research.



When we use the term “broadly-engaged team science,” we refer to the efforts of those with different expertise, different experiences, and different needs working together to harmonize their perspectives to advance a research effort. Clinical and translational research is most impactful when it seeks to address issues that are truly important to communities, patients, caregivers, and clinicians – our stakeholders. Stakeholders possess a wealth of perspectives and skills and an understanding of unmet needs in the community.

With stakeholder expertise we can pose relevant research questions, find meaning in research outcomes, and disseminate impactful results. At the same time, our commitment to broadly-engaged team science helps us to enhance protocol development, improve study enrollment, and optimally apply research results to clinical care.

This year we worked hard to engage with the community, our partners, and across the national CTSA Consortium to expand our vision of broadly-engaged team science. These collaborations and partnerships are a testament to Tufts CTSI's commitment to support a diverse research field, improve the transparency of research, and strengthen community relations.

You will read in this report about several examples of our broadly-engaged team science efforts. In one, members of our Addressing Disparities in Asian Populations through Translational Research (ADAPT) Program partner with Dr. Christina Sakai on her research study on autism diagnoses in minority communities. In another, Stakeholder Expert Panel member Apolo Catala spurs efforts to promote healthy and affordable nutrition through urban farming. These stories highlight our efforts in Stakeholder and Community Engagement and Integrating Underrepresented Populations in Research.

Another success story demonstrates the power of our institutional partnerships. A post-doctoral research fellow, Dr. Alissa Dangel collaborated with MIT and our T.5 Capacity in Medical Devices Program on a preliminary prototype for a new obstetrics device. In other areas, our partners and collaborators are helping us to promote effective health communication via forums with the Museum of Science, civic science roundtables with MassBio, and principal investigator discussions with community partners and residents.

Across Tufts CTSI, our efforts are having an impact. Thank you to our funders, partners, collaborators, researchers, stakeholders, and our incredible team of faculty, directors, managers, and staff for another wonderful year. I look forward to working together in the years to come to continue to make a difference in clinical and translational science while keeping the collaborative spirit of broadly-engaged team science at the forefront of our efforts.

Very best wishes,

Harry P. Selker, MD, MSPH

Dean, Tufts CTSI

Our Programs, Resources, and Services

Addressing Disparities in Asian Populations through Translational Research (ADAPT)

Biostatistics, Epidemiology, and Research Design (BERD) Center

Clinical and Translational Research Center (CTRC)

Comparative Effectiveness Research (CER)

Education, Training, and Career Development

Funding Opportunities and Voucher Programs

Human Nutrition Research Center on Aging Metabolic Research Unit (HNRCA MRU)

Informatics

Integrating Underrepresented Populations in Research (IUPR)

Junior Faculty Research Career Development Forum

Massachusetts Institute of Technology Clinical Research Center (MIT CRC)

Multi-site Clinical Research Center (MCRC)

One Health

Recruitment and Retention Support Unit (RRSU)

Regulatory Knowledge and Support Research Process Improvement (RPI)

Science Communication

Stakeholder and Community Engagement (SCE)

Stakeholder Expert Panel (SEP)

T.5 Capacity in Medical Devices

Team Science: Research Collaboration Team and Navigators

Trial Innovation Network (TIN)

Translational Science Expert Panel (TSEP)

For more information, please visit www.tuftscsi.org

Alissa Dangel, MD is hoping to change the way pre-term breech babies are delivered. After working for nearly a decade as an attending physician at Tufts Medical Center, she is now pursuing her interest in research as a TL1 Research Fellow in Tufts CTSI's Clinical and Translational Science Graduate Program. This program led her to an exciting collaboration with MIT to create a preliminary prototype for a new obstetrics device.

Dr. Dangel spent the past four years working as an obstetrics and gynecology hospitalist exclusively at night with most of her focus spent on early-morning deliveries, sometimes under emergency circumstances. This fed her desire to conduct obstetrics research.

"Everything seems so much clearer at 2:00AM," she says. "When you have to perform an emergency C-section for a breech, premature baby at 2:00AM, it makes you want to find a better way."

Dr. Dangel's thesis is centered on high-risk babies who are born in the breech position (feet first). The current convention is to deliver breech babies via C-section rather than a vaginal delivery, but vaginal delivery is preferable because it poses fewer surgical risks and requires a shorter recovery period. Dr. Dangel's prototype focuses on a specific problem related to preterm breech delivery: head entrapment. She hopes her device will mitigate this risk and allow some women to deliver breech babies vaginally.

To design her prototype, Dr. Dangel collaborated with a medical device design class at MIT. Her father, an MIT alumnus, read about the class in a newsletter. At his suggestion, Dr. Dangel submitted her proposal and the class accepted it. Together with a group of undergraduate and graduate students they designed a device to solve the problem. Feedback shared between Dr. Dangel and the design class resulted in the current prototype.

Dr. Dangel thanks her mentors at Tufts and MIT for their guidance and assistance on this project and throughout her fellowship:

- Michael House, MD, is a specialist in maternal-fetal medicine at Tufts Medical Center and an Associate Professor of Obstetrics and Gynecology at Tufts University School of Medicine. His past work with MIT researchers on the mechanical properties of the cervix helped to pave the way for Dr. Dangel's prototype project. He also serves on Dr. Dangel's thesis committee.
- MIT's Kumaran Kolandaivelu, MD, PhD is Associate Director of Tufts CTSI's T.5 Capacity in Medical Devices Program, which addresses the challenge of bridging the gap between preclinical development to human studies. Dr. Kolandaivelu helped Dr. Dangel to formulate aspects of her thesis and is working with her to determine who will use the device, how they will use it, how it will be tested, and where the funding for testing will come from. These are all necessary components to keep Dr. Dangel's research moving forward.

Dr. Dangel is committed to improving obstetrics care. "For me, it's been very eye-opening to see how little innovation goes into obstetrics," she says. "When you order a lab test on a pregnant woman, the reference ranges on the computer are still typically for a male. Sometimes the computer will label the test as "normal" even though I know it's not. These issues get left untouched because people don't have the clinical exposure or don't understand why this population is different. As someone who did clinical medicine for several years, I think I could push the agenda to focus more collaborative research efforts towards obstetrics."



**TL1 Fellow
Alissa Dangel, MD**

Partnership Impact: Addressing Health Disparities for Chinese Immigrant Children



**Yoyo Yau and
Christina Sakai,
MD at the 2019
Asian Health
Symposium**

From language barriers to differences in cultural norms, it can be challenging for members of minority communities to access proper health care. A specific area of difficulty lies in diagnosing children with autism. **Christina Sakai, MD**, a developmental-behavioral pediatrician, and **Christina Mulé, PhD**, a pediatric psychologist, set out to address the impact of Chinese culture on diagnosing autism in Chinese immigrant children.

“Within prior studies, we recognized that kids from minority, non-English speaking families tended to have later diagnoses of autism and more complicated access to ongoing management,” she said. “We tend to focus on Latino, Spanish-speaking communities, but not so much on other minority languages and cultures.”

Having worked on parenting support groups and workshops with the Boston Chinatown Neighborhood Center (BCNC), and being of Chinese background herself, Dr. Sakai was interested in childhood health in the Chinatown community. The goal of her research was to understand how Chinese immigrant culture could potentially impact the timeline of diagnosing autism in children and their getting access to care.

The study found that while parents of children diagnosed with autism had difficulty accessing services due to language barriers, the larger issue was how Chinese culture impacts their perception and understanding of autism.

“We didn’t find the subjects were particularly delayed in diagnoses, nor that they had a lower rate of service use,” she said, “but that’s not to say Chinese immigrants don’t have problems accessing care. Due to sampling methods, subjects were already actively engaged in subspecialty clinics and family support groups and yet still identified significant barriers. As such, the experiences of those who are less engaged in the health care system may not be well-captured in study results.”

The study found that some parents used Chinese-specific terms (words that are exclusive to Mandarin) that conveyed ideas which shaped parents’ belief systems regarding autism. Some parents were in complete denial of their child having developmental challenges, even in the midst of receiving care to address those challenges. Others had general misunderstandings of what autism is. And some believed their children would be cured if they were sent back to China to be around other Chinese children.

Drs. Sakai and Mulé stressed the importance of the support they received during all phases of the study from the BCNC and Tufts CTSI’s Addressing Disparities in Asian Populations Through Translational Research (ADAPT) Program. This research illustrates the support that Tufts CTSI and ADAPT provides to early investigators to address their goals. Drs. Sakai and Mulé worked with the Child Health Work Group of ADAPT, led by Aviva Must, PhD and Karen Freund, MD, MPH of Tufts CTSI, in the

development of the specific aims, the writing of their grant proposal, and the implementation of their research project. Amy LeClair, PhD, MPhil (another Tufts CTSI investigator) provided support and mentorship in conducting and analyzing the data.

“The support of a group of senior mentors throughout the grant-writing and research process was critical to the success of this project,” said Dr. Sakai.

Yoyo Yau, Director of Family and Community Engagement at the BCNC, was involved since the project’s inception. Her support, and support from others at the BCNC, was instrumental in getting the project off the ground. She says, “As a research partner, Dr. Christina Sakai has strong compassion to serve Asian immigrant families and children with autism. This research project has provided a tremendous voice to promote the child wellness of Asian immigrant families in our community.”

Dr. Sakai’s and ADAPT’s collective interests in child health within the Chinatown community also helped propel this research study.

ADAPT’s Director, Carolyn Rubin, EdD, MA, says, “We knew that it could shed light on an important issue that Chinese families struggle with. Parents often struggle with how to navigate the complex health and educational systems that they find themselves in when trying to get the care and support they need for their child who lives with autism.”

The study was published in the *Journal of Developmental and Behavioral Pediatrics* and Dr. Sakai and Ms. Yau presented their findings at the 5th Annual Asian Health Symposium on April 23, 2019.

Dr. Sakai hopes that the results of this research might have a larger impact on early recognition of child development concerns and aid in reducing the stigma associated with diagnoses and receiving care in Chinese immigrant communities. She also hopes that parents of children with developmental challenges will feel more supported, not just within the health care system, but within their community.

Dr. Sakai is optimistic that engaging in this research and partnering with a community-based organization in Chinatown will have a lasting impact on the community. She says, “I truly believe that research driven by those within the community will have the broadest impact and will work to maintain ongoing collaborations.”



Apo Cálata at OASIS on Ballou

For **Apo Cálata**, community engagement is a way of life. As Farm Manager of Codman Square Neighborhood Development Corporation's OASIS (Opportunity, Affirmation, Sustainability, Inspiration, and Success) on Ballou, he is committed to engaging people in healthy, affordable nutrition through urban agriculture. "Our mission is to create food access in a multi-dimensional way by encouraging people to make a better connection with where their food comes from, and by inspiring them to grow their own," he says.

In 2018, he was invited to join Tufts CTSI's Stakeholder Expert Panel and saw an opportunity to have an impact on nutrition research. Stakeholder Expert Panel members come from a variety of backgrounds and are committed to accelerating translational research by providing new perspectives. Panelists include community members, patients and their families, researchers, medical industry representatives, and health care providers.

"I see my role on the Panel as identifying areas of research, bringing people together, and hopefully, getting involved with a nutritional food access study," Cálata says. "Codman Square takes a 360° approach to the social determinants of health. We could be a valuable partner for researchers through Tufts CTSI."

Cálata is one of the Panel's most active members. Thus far, he participated in Tufts CTSI's Community Orientation to Health Research, a Museum of Science/Tufts CTSI Forum Collaboration Topic Selection Workshop, and a Research Results: Stakeholder Conversations event; was a technical discussant at the 2018 Health Equity Research Symposium Plus Workshop; reviewed Pilot Studies Program grant applications; and hosted a volunteer day

for Tufts CTSI and Institute for Clinical Research and Health Policy Studies researchers at the OASIS, a half-acre farm in Dorchester along the tracks of the Fairmount Commuter Rail.

Formerly the site of four houses, the property was abandoned in the 1970s and became a dumping ground for car parts and trash. In 2008, the City of Boston Department of Neighborhood Development designated the site for urban agriculture. They cleared away the debris and contained the contaminated soil by covering the lot in wood chips and geotech fabric. Today, Under Cálata's direction, workers and volunteers use raised beds, containers, and garden bags to grow hundreds of pounds of vegetables, herbs, and flowers. The produce is then made available to the community.

Tufts CTSI and Institute for Clinical Research and Health Policy Studies volunteers spent several hours prepping, planting, raking, weeding, and clearing the site of trash, providing a productive and educational morning for teambuilding and camaraderie. They hope to return later in the growing season to see the fruits of their labor and to continue the conversation about nutrition and food access.

Volunteers prepare raised beds for planting



Since 2009, Tufts CTSI has awarded 93 grants via its Pilot Studies Program for impactful, innovative, and interdisciplinary research projects. In 2019, we added to our portfolio of funding and resource opportunities by launching the Community Health Catalyst Program, the Clinical and Translational Research Center (CTRC) Voucher Program, and the Biostatistics, Epidemiology, and Research Design (BERD) Voucher Program.

Community Health Catalyst Program

Launched in December 2018, the Community Health Catalyst Program funds projects (up to \$15,000 per award) undertaken jointly by community-based organizations and researchers from Tufts CTSI partners and collaborators that address pressing and overlooked health issues impacting the well-being of communities. Projects include those that gather preliminary qualitative or quantitative data on a health research question of interest, evaluate a health-focused program, or develop a new health intervention.

Projects can be community- or researcher-initiated and must focus on a specific community-identified need. Applicants need to articulate the value and impact of the proposed research project to the community and the potential for future work, or as a complement to existing efforts.

We awarded two projects in April 2019:

- ***Building an Academic/Community Collaborative to Address Food Access Issues in Somerville: Exploring Three Healthy Retail Models***, led by Virginia Rall Chomitz, PhD (Tufts University School of Medicine) and Lisa Robinson, MPH, RD (Shape Up Somerville). Collaborators include Sean Cash, PhD (Tufts University Friedman School of Nutrition Science and Policy), Christopher Mejia-Argueta, PhD (Food and Retail Operations Lab, MIT Center for Transportation and Logistics), and Lars Meyer Sanches, PhD (Food and Retail Operations Lab, MIT).
- ***Partnership between Springfield Public School Nurses and Baystate Pediatric Diabetes Program to Enhance Diabetes Care for Children with T1DM from a Disadvantaged Population***, led by Ksenia N. Tonyushkina, MD (Baystate Health) and Jeanne Clancy, RN (Springfield Public Schools). Collaborators include Holley F. Allen, MD (Baystate Health) and Sarah L. Goff, MD, PhD (University of Massachusetts, Amherst).

Clinical and Translational Research Center (CTRC) Voucher Program

Launched in June 2018, the CTRC Voucher Program provides Tufts CTSI research support services (valued at up to \$5,000) for unfunded or under-funded federal or

non-profit research that requires modest support to complete the study or generate preliminary data to support a proposal for a larger, more definitive study.

We awarded one project in December 2018:

- ***The SHARE research study (Stopping the spread of HIV/AIDS through Relationship Engagement)***, led by Ndidi Amutah-Onukagha, PhD, MPH, CHES (Tufts University School of Medicine).

Biostatistics, Epidemiology, and Research Design (BERD) Voucher Program

Launched in February 2019, the BERD Voucher Program provides statistical analyses and computational modeling (up to 20 hours per project) to selected pilots or other modest studies that are expected to generate future grant proposals for larger translational studies and/or publications in peer-reviewed journals.

Proposed projects must have a preliminary hypothesis underlying the research and a defined plan and timeline for the publication and dissemination of all research results and for seeking future research funding for a follow-on study.

We awarded four projects in May 2019:

- ***The Impact of the 2018 Merrimack Valley Gas Fires on Emergency Department Visits for Childhood Respiratory Illnesses and Asthma: An Observational Study***, led by Shira Pedan, MD (Lawrence General Hospital and the Floating Hospital for Children at Tufts Medical Center). Collaborators include Dan Hale, MD (Lawrence General Hospital and the Floating Hospital for Children at Tufts Medical Center) and Caroline Komanecky, MD (Greater Lawrence Family Health Center).
- ***Laparoscopic Interval Debulking Surgery for Advanced Ovarian Cancer After Neoadjuvant Chemotherapy***, led by John Schorge, MD (Tufts Medical Center). Collaborators include Leslie Bradford, MD (Maine Medical Center), Kirsten Jorgensen, MD (Tufts Medical Center), and Victoria Wang, MD (Tufts Medical Center).
- ***Laryngeal Mask Airway for Transfemoral-Transcatheter Aortic Valve Replacement***, led by Frederick Cobey, MD (Tufts Medical Center). His collaborator is Shara Azad, MD (Tufts Medical Center).
- ***NeMeRe: A Neoplastic Meningitis Registry Analysis in Adults***, led by Suriya Jeyapalan, MD, MPH (Tufts Medical Center). Collaborators include Richard Dowd, MD (Tufts Medical Center) and Shilpa Ghatnekar, MS (Tufts University School of Medicine).

We congratulate all of our 2019 awardees and look forward to seeing the impact of their work.

Tufts CTSI hospital partners in Massachusetts and Maine serve diverse urban and rural populations. Together, we have a long history of addressing health issues relevant to our communities and understanding and improving the health of elders, children, and other vulnerable populations. To help researchers reach all racial/ethnic categories and other populations, we launched the Integrating Underrepresented Populations in Research (IUPR) Program in 2018.

IUPR builds on our existing strengths and leverages expertise and resources to create a culture and environment in which inclusion of underrepresented populations in research is normative. Anchored in Tufts CTSI's practice of broadly-engaged team science, the IUPR program promotes inclusion of underrepresented populations in all aspects of research.

Led by Director Sara C. Folta, PhD and Associate Director Linda B. Hudson, ScD, MSPH, IUPR offers consultations that provide tailored guidance on:

- Strategies for the inclusion of underrepresented populations
- Evidence-based recruitment and retention strategies
- Effectively working with stakeholders.

The program also offers education and training, including:

- Online modules
- In-person workshops to help build skills around inclusion of underrepresented populations
- Opportunities for direct engagement with potential study populations through workshops and presentations.

In parallel with IUPR, we formed the Recruitment and Retention Support Unit (RRSU) to provide researchers with practical, evidence-based, participant recruitment and retention support in pre- and post-award phases of research studies. Our team works closely with investigators to devise customized, multi-modality strategies to minimize accrual time and maximize participant retention in research studies. We provide services ranging from general consultations to targeted advertising, and collaborate closely with the Tufts CTSI Informatics team to perform technology-driven cohort discovery, and with IUPR to ensure recruitment strategies are aligned with population diversity targets.

RRSU services include:

- Development of recruitment plans
- Best practices for integrating underrepresented populations
- Development of advertising materials
- Initial submission of recruitment materials to the Institutional Review Board (IRB)
- Submission of recruitment-related amendments to the IRB
- Management of advertising campaigns for recruitment.

Through online and digital marketing efforts, open houses, targeted communication, and word-of-mouth, news about the availability of IUPR and RRSU services has spread. The teams are fielding service requests and providing consultations. They are looking ahead to future initiatives such as forming patient advisory boards, continuing to build a developing a resource compendium, and hosting awareness-raising events and skill-building workshops.

Public Impact: Health Communication & Research Dissemination

One of the aims with our current CTSA grant is to develop science communication strategies that acknowledge community-based attitudes, find common ground, and engender a common purpose. We enlisted the help of Jonathan Garlick, DDS, PhD and Robert Sege, MD, PhD to improve the public's understanding of the purposes and value of clinical research and to build and maintain their trust.

Museum of Science Forums

Since the start of Tufts CTSI in 2008, we collaborated with the Museum of Science, Boston (MoS) on many initiatives. This year, we joined forces to host an annual Forum on

important topics in health research. Forums are interactive events open to the public that explore the intersection of society and science and encourage interactive discussions, decision-making, and problem-solving.

In March 2019, MoS and Tufts CTSI hosted a full-day Forum topic selection workshop. Participants heard "lightning talks" from community members and experts in the fields of addiction, precision medicine, and exercise/nutrition research, and formed small groups to discuss, prioritize, and select questions that will be important and interesting for the public to deliberate. The MoS will host the Forum, Addiction: Creating Communities of Resilience, on November 20, 2019.

Civic Science Roundtables

Civic Science Roundtables are another element of our health communication initiative. These public dialogues are designed to break down stereotypes, inspire curiosity, build empathy, and enable participants to link their health and well-being to their personal and civic responsibilities. We partnered with MassBioEd to host our first roundtable during the Cambridge Science Festival in April 2019. The goal was to engage student-athletes, teachers, school administrators, and parents from several area high schools in a discussion facilitated by Dr. Garlick on sports-related brain injuries in ways that can inform important choices they may face.

The roundtable started with an overview of sports-related brain injuries and latest evidence. Participants then shared diverse opinions, perspectives, and hopes related to participation in sports. By bringing their life experiences, values, and concerns into these conversations, students with diverse views and backgrounds spoke openly as they thoughtfully considered how they might act on important choices they need to make in the face of uncertain risks. These dialogues are not meant to reach a consensus on what should be done on this issue, but rather to engage students with their peers in discussions about choices facing them related to sports-related brain injuries.

Our next roundtable will be with Addressing Disparities in Asian Populations through Translational Research (ADAPT) community partners. To learn more about our Civic Science Roundtables, or to request a Roundtable in your community, please submit a request on our website (www.tuftsctsi.org).

Research Results: Stakeholder Conversations

In 2018, the Stakeholder and Community Engagement Program established the Stakeholder Expert Panel, consisting of 22 community stakeholders, research participants, payers, public health officials, and others to advise on, and be involved with, all aspects of Tufts CTSI to ensure that programs and research reflect community needs and priorities. Ten Panel members are especially engaged and active, and participate in initiatives including:

- Addiction Research Symposium Plus
- Health Equity Research Symposium Plus
- Translational Research Day
- Orientation to Health Research events
- Grant application review (Pilot Studies Program and Community Health Catalyst Program)



Stakeholder Expert Panel members welcomed Carolyn Rubin, EdD, MA to the first installment of Research Results: Stakeholder Conversations.

- Review of Clinical and Translational Science Graduate Program thesis proposals
- Development of a learning module to support the recruitment of elderly participants into clinical research.

In May 2019, the Panel launched Research Results: Stakeholder Conversations, a series of discussions with Principal Investigators about their published research. Panel members reviewed journal articles written by researchers affiliated with Tufts CTSI, selected the studies that interested them, and then invited the investigators to talk about their work and answer questions.

For the first installment of this program, Panel members invited Carolyn Rubin, EdD, MA to discuss her study, *We Make the Path by Walking it: Building an Academic Community Partnership with Boston Chinatown* (Prog Community Health Partnersh. 2014 Autumn;8(3):353-63).

Dr. Rubin gave some background about her personal connection to the research, her professional qualifications, the history of Tufts CTSI's Addressing Disparities in Asian Populations through Translational Research (ADAPT) Program, and the importance of involving community members in every stage of research. Panel members then asked questions that resulted in extensive discussions about the impact of ADAPT; the likelihood of whether the ADAPT model will succeed in other communities; the importance of trust and transparency between academia and community residents and partners; and the challenges associated with research dissemination, and the Panel's desire to help mitigate them.

Each year, Tufts CTSI hosts educational seminars, workshops, symposia, and an annual research conference at the Tufts Health Sciences Campus in Boston. Here are some images from a few of our 2018-2019 offerings.

Translational Research Day 2018:

Addiction Research in the Lab, Clinic, and Community (November 7, 2018)



Keynote speaker Howard Shaffer, PhD, CAS.



Nathan Ward, PhD discusses his poster with Tufts Medical Center CEO Michael Apkon, MD, PhD, MBA.



Attendees listen intently at an afternoon session on gambling addiction.

5th Annual Asian Health Symposium:

Moving Forward, Looking Back: Using Research to Improve Community Health (April 23, 2019)



Taylor Ahlborn, MS (CTR) with research mentors Dawn Sauma, MSW, LICSW (L) and Carolyn Rubin, EdD, MA (R).



Attendees get acquainted before the Symposium begins.



Panelists answer questions about community-engaged research studies in Boston Chinatown/Asian communities.

21st Annual Clinical and Translational Science (CTS) Graduate Program Symposium (May 3, 2019)



KL2 Program Director Karen Freund, MD, MPH congratulates 2019 Poster Competition winner Asma Tariq, MD.



CTS Graduate Program students, faculty, and staff.



TL1 Fellow Paul Adjei, MD discusses his poster with Daniel Jay, PhD, Dean of the Sackler School of Biomedical Sciences, and Robert Sege, MD, PhD, Tufts CTSI Lead Navigator and Co-Director of Stakeholder and Community Engagement.

Selected Tufts CTSI Program Highlights:

- Since 2009, we've awarded **93 grants** for innovative, interdisciplinary research through our Pilot Studies Program.
- The Clinical and Translational Science (CTS) Graduate Program has conferred degrees and certificates to **196 trainees** since joining the Sackler School of Graduate Biomedical Sciences in 1999.
- We provided more than **3,500 researchers and their collaborators** with electronic data capture capabilities via REDCap. In 2018, **685** new users registered for REDCap accounts.
- Our Clinical and Translational Science Awards (CTSAs) have been cited in **more than 380** academic journal articles.

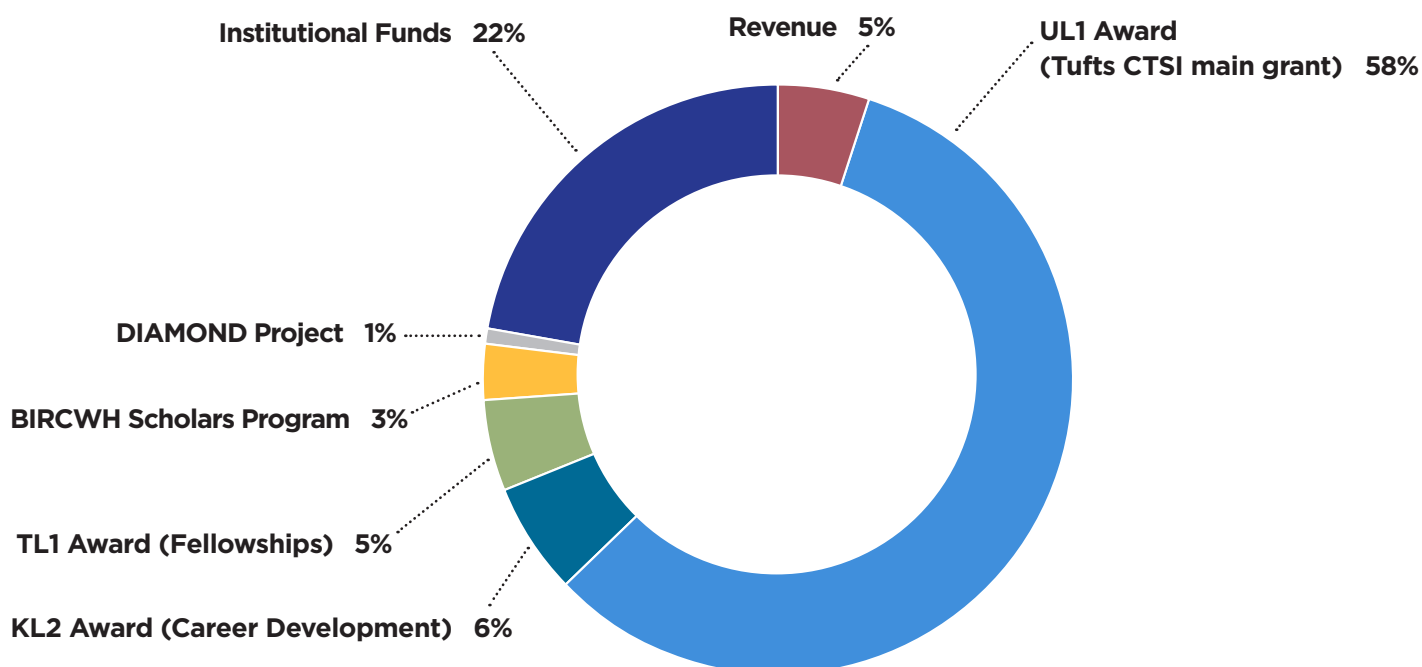
In 2018:

- Our Navigators and content experts provided **775 services and consultations**.
- The Biostatistics, Epidemiology, and Research Design (BERD) Center fielded **288 service requests** and provided their expertise to **46 investigators** during Drop-in Sessions.
- The Clinical and Translational Research Center (CTRC) supported **50 clinical studies**.
- The Professional Development Team offered **36 events** (seminars, workshops, and symposia) that were attended by **863 people**, offering more than **81 training hours** to researchers.
- The Integrating Underrepresented Populations in Research (IUPR) Team compiled a compendium of best practices containing **more than 1,800 published articles**.

TUFTS CTSI FUNDING BY SOURCE 3RD GRANT PERIOD, YEAR 1

May 2018 – April 2019

Total \$16,878,807



2019 TUFTS CTSI FUNDING RECIPIENTS

Tufts CTSI offers funding for innovative, high impact, translational science pilot projects and for the career development of junior faculty affiliated with our partners and collaborators. Congratulations to our recent recipients.

■ Career Development Award (KL2) Program

Tufts CTSI offers a KL2 Career Development Award for highly-qualified junior faculty to conduct multidisciplinary clinical/patient-oriented research for two or three years. This NIH-funded program is designed to foster collaborative research across Tufts-affiliated hospitals/campuses and across disciplines. Our 2018-2020 scholars are:

- Adolfo Cuevas, PhD, Tufts University School of Arts and Sciences
- Elizabeth (Lila) Peacock-Chambers, MD, MS, Baystate Health
- Shanthini Kasturi, MD, MS, Tufts Medical Center
- Angie Mae Rodday, PhD, MS, Tufts Medical Center
- Alysse Wurcel, MD, MS, Tufts Medical Center

■ TL1 Fellowship Program

The TL1 Fellowship Program offers research training for scholars and clinicians with an interest in clinical and translational research. These prestigious, NIH-funded programs provide stipends and full tuition for the Clinical and Translational Science (CTS) Graduate Program. Fellows earn a Certificate or MS in CTS, with the possibility of a PhD. Our current fellows are:

- Paul C. Adjei, MD, Tufts Medical Center
- Anna Meader, MD, Maine Medical Center
- Alissa Dangel, MD, Tufts Medical Center
- Bridget Jane Perry, PhD, MS, MGH Institute of Health Professions
- Guarav Gulati, MD, Tufts Medical Center
- Xi Qian, PhD, MS, Tufts University School of Medicine
- Michael Jonczyk, MD, Tufts Medical Center
- Alexandra Sack, DVM, MPH, Harvard T.H. Chan School of Public Health
- Anita Kumar, MD, MS, Tufts Medical Center

■ Tufts CTSI Pilot Studies Program

The Pilot Studies Program funds projects led by interdisciplinary, multi-institutional, translational and clinical research teams. The program aims to improve population health by funding projects that allow investigators to develop and disseminate novel tools or methods, and/or to generate sufficient preliminary data for a larger follow-on study. The Principal Investigators for this year's awarded projects are:

- Ndidiamaka Amutah-Onukagha, PhD, Tufts University School of Medicine
Project: Intervening Along the Continuum of Risk for Adolescent Girls: Addressing Food Insecurity at the Intersection of Exchange Sex
- Shira Doron, MD, Tufts Medical Center
Project: Quantifying Antimicrobial Use and Risk Factors for Prescribing in a Small Animal Veterinary Referral Hospital
- Deborah Linder, DVM, Tufts University Cummings School of Veterinary Medicine
Project: Development of an Animal-assisted Intervention to Promote Physical Activity and Nutrition in Youth with Autism
- Timothy McAlindon, MD, Tufts Medical Center
Project: A Novel Smartphone Application to Objectively Measure Physical Function in Individuals with Knee Osteoarthritis: A Pilot Study for 'Smart' Randomized Clinical Trials
- Susan Roberts, PhD, Tufts University Jean Mayer USDA Human Nutrition Research Center on Aging
Project: Development of Novel Behavioral Intervention for Sustainable Weight Loss in Obese Hispanic Adults
- Kyla Shea, PhD, Tufts University Jean Mayer USDA Human Nutrition Research Center on Aging
Project: Vitamin K, the Intestinal Microbiome, and Osteoarthritis
- Oscar Soto, MD, Tufts Medical Center
Project: Developing an Activity-dependent Marker of Upper Motor Neuron Dysfunction in ALS
- Srinivas Sridhar, PhD, Northeastern University
Project: Objective Portable Diagnostics of Neurological Disorders