The Center for Clinical and Translational Science and Training (CCTST) was established in 2005 as the University of Cincinnati (UC) academic home for clinical and translational research, providing "one-stop shopping" for investigators across the academic health center (AHC) and beyond in need of guidance, information, support, resources and training. The CCTST spearheaded the AHC's submission of an NIH Clinical and Translational Science Award (CTSA) application in 2009, when it received an initial five-year award of nearly $23 million and a four-year award of $16.7 million in 2015. The CCTST was renewed again in 2020 with a $22.1 million, 5-year award plus an additional $4.1 million in funding for the KL2 Career Development Awards Program from the National Center for Advancing Translational Sciences (NCATS). UC and its partner institutions Cincinnati Children's Hospital Medical Center (CCHMC), and UC Health comprise the 39th member of the CTSA Consortium, which now includes over 50 sites. Its offices are centrally located in the CCHMC “Location S” research building, directly across the street from the UC Medical Sciences Building (MSB).

Investigators request methodologist consultation services through the CCTST's online “Research Central” portal and may qualify for a renewable voucher for more intensive support, described in the Biostatistics, Epidemiology and Research Design (BERD) section below. The CCTST website also features service descriptions, a searchable database of intramural funding opportunities, news, and a comprehensive AHC calendar of on-campus workshops, conferences and lectures of interest to clinical/translational researchers. Faculty and community members can establish free CCTST membership online, required to obtain access to consultation services through Research Central as well as special funding, training and networking opportunities. In return, members help promote CCTST goals and services, collaborate and share expertise with fellow researchers, cite CCTST assistance in publications as appropriate, and provide information for surveys and reports. To date, over 4,780 members have joined the CCTST, including over 540 community representatives.

The CCTST has promoted multi-disciplinary collaboration through Integration Committee consultations and topic-based studios, and by making multi-disciplinary teams a funding priority in CCTST grant programs. Since its inception in January 2013, the Committee has met with over 140 faculty and investigators/groups from across the AHC, UC undergraduate campus and the community to help define solutions for problems encountered during the course of their research efforts. One of the major strengths of the program is its longitudinal nature, which ensures that faculty on the Integration Committee serve as the “primary care doctor” for the participant, with frequent follow-up to ensure that solutions to any encountered obstacles can be developed and to encourage progress on projects and career development. There is interest at the UC leadership level to develop this program across the university and extend to the Colleges on the undergraduate campus (Engineering; Design, Art, Architecture and Planning; Arts and Sciences; Education and Criminal Justice).

The CTSA funding renewal included support for 2 optional modules which will advance clinical and translational research across the AHC:

- **Lifespan Data Integration Module.** The Lifespan Data Integration Module serves as a core resource for maternal and child health providers, policy-makers, epidemiologists, and community agencies—ultimately, any stakeholder in maternal and infant health. The Lifespan Data Integration Module seeks to catalyze perinatal research efforts through engagement of additional multidisciplinary teams, both within and external to the CCTST community. This module focuses on local efforts to improve maternal health before and during pregnancy, discovers mechanisms to prevent prematurity and reduce intrauterine exposures to substances of abuse or other harmful environmental exposures, and tracks infant outcomes and healthcare utilization after birth. CCHMC and the UC Medical Center have an accomplished record of leading multidisciplinary research, as well as place-based collaborations focusing on improving perinatal health, including with the March of Dimes Ohio Collaborative, Cradle Cincinnati, and Start Strong-Avondale.

- **Learning Healthcare Systems to Accelerate Translation and Implementation Module.** A Learning Health System (LHS), in which patients, clinicians, and researchers work together to choose care based on best evidence and to drive discovery and learning as a natural outgrowth of every clinical
encounter, can accelerate the translation of knowledge to outcomes. The overall goal of this module is to accelerate research, translation, and implementation of new knowledge into improved outcomes. This module will develop, test, and refine interventions that facilitate the formation of an LHS within the Academic Health Center (AHC), starting with two pilot projects in the UC Gardner Neuroscience Institute and the CCHMC Mind, Brain, and Behavior Collaborative.

With CTSA and institutional funding, the CCTST provides resources in the major program areas described below:

**Acute Care Research Council (ACRC).** The ACRC is a high-impact collaboration of acute care research professionals across the CCTST member institutions, which has been meeting regularly since 2015. The ACRC has defined core competencies for clinical research coordinators (CRC) who work in this area and set up an online repository of regulatory documents (created by our Acute Care Research Regulatory Professionals Group). The ACRC is the most comprehensive AHC-based collaboration of acute care researchers in the nation. The ACRC has recently begun offering consultations for investigators interested in acute care research. This group can provide project management assistance, as well as help with thinking about the logistical issues unique to the acute care setting, including regulatory, consenting/accrual, lab/imaging, pharmacy, etc. The ACRC has also organized an Acute Care Research Symposium each of the past two years, with an emphasis on topics broadly relevant to the acute care community (i.e., consent in acute care research and sepsis). In March 2020, they hosted a Resident and Fellows Acute Care Research Showcase to foster the development and engagement of the next generation of acute care researchers at our AHC. Leadership of the ACRC successfully submitted a manuscript describing competencies specific to acute care research clinical research professionals (Schuckman, S., Babcock, L., Spinner, C., Adeoye, O., Gomaa, D., Pritts, T., Knapke, J. M. (2020). Acute Care Research Competencies for Clinical Research Professionals. Journal of Clinical and Translational Science, 1–21. [http://doi.org/10.1017/cts.2020.38](http://doi.org/10.1017/cts.2020.38). In 2020, the ACRC was part of an NCATS U01 grant submission with Vanderbilt University titled, “Risk Assessment and Consent for Enrollment in Acute Care Research (RACER).” This multi-PI project proposes to collect input from key stakeholder groups to develop and disseminate tools to support appropriate approaches to assessing risk and enrolling patients in acute care comparative effectiveness research.

**Center for Improvement Science (CIS).** The CIS is a consultative and education service to support collaboration and Team Science. As a division of the CCTST they support all faculty and staff of the UC, CCHMC, and UC Health. These services are also available to members of the community who collaborate with CCTST partner institutions. CIS provides assistance with services such as collaboration, grant writing, grant and program evaluation, team building and Team Science training. CIS Team Science workshops acquaint researchers, educators and other innovators across all CCTST partner institutions and the community with the principles of team science. The mission, structure, and model of operations of the CIS have been developed by an interprofessional and multi-institutional task force. In 2019, the CIS held 10 workshops, 23 additional teaching sessions and presentations, and over 81 consultations with individuals and teams. These activities included over 1,269 participants from across the affiliate institutions and the community. Wherever possible the CIS is reaching out across the University, CCHMC and UC Health to provide services to faculty and trainees pursuing research that would benefit from enhanced skills in team science. A graduate credit course (Team Science and Collaboration) was initiated in the MS in Clinical and Translational Research program in January 2018 and continued in 2019. The feedback from students for the first 2 years of the program was very positive and KL2 scholars are required to participate in either 2 workshops or the graduate course to improve their skills in team science. Participants in the course to date have included KL2 scholars, faculty from the colleges of medicine, engineering, allied health sciences, and Children’s Hospital.

**Pilot Translational and Clinical Studies (PTCS).** The CCTST offers five pilot funding mechanisms: Pilot Translational Research and Innovative Core grants, Just in Time (JIT) grants, Processes and Methods grants and two grant programs organized by the Community Engagement Core (CEC), Community Health Grants and Partnership Development Grants (see CEC section for more details on the community grants).

There are three specific grant types within the Pilot Translational Research and Innovative Core grants program: Translational Research Grant (TRG), Mentored Translational Research Grant (MTRG), and Innovative Core Grant (ICG). The TRG supports established investigators seeking to conduct novel
translational research. To focus on promoting mentored research by new investigators, mentees and mentors are paired in the MTRG to promote research education and help ensure career development. The ICG helps build adequate local infrastructure to support clinical and translational research by providing funds to establish new shared Core facilities with a clear translational focus. For the cycle funded in July 2019, 27 LOIs were received for the TRG, MTRG, and ICG applications. Of these applications, 5 TRG awards were funded totaling $300,000. For the 2020 cycle, 31 LOIs were received for TRG, MTRG, and ICG. In 2020, 9 TRG and MTRG awards and one ICG were awarded.

Since April 2016, 110 Just-in-Time grants ($7,500 each) have been awarded, valued at $941,978 to support use of cores for projects designed to support resubmission of grants that previously were scored but not funded by NIH or foundation sources. We recently completed an ROI assessment for these awards (November 2019) with an outstanding ROI of 49.

The Processes and Methods grant program, a collaboration between PTCS, Biostatistics, Epidemiology and Research Design (BERD), and Ethics, Regulatory Knowledge and Support (ERKS), enables investigators at all levels to explore ways to improve the efficiency and effectiveness of the processes and methods used in clinical and translational research. For the 2020 cycle we requested LOIs for the Processes and Methods pilot grant program and funded 6 applications from investigators at UC and CCHMC on such topics as use of consumer purchasing data to improve dietary interventions, artificial intelligence to predict PTSD recovery, smart phone sensors to predict patient outcomes, and detection of teen substance abuse patterns from EHR data.

A recent evaluation of the pilot programs since initial funding of the CCTST in 2009 indicated that for all the pilot programs sponsored by CCTST (including the Community Health Grants and Partnership Development Grants), we had made 621 awards valued at $12,470,640, resulting in 899 publications and 327 extramural grants valued at $202,304,016 (ROI: 16.2). Further accomplishments of these programs include the filing of 65 Patents, development of 9 Licenses and resulting in 5 startups.

Biostatistics, Epidemiology and Research Study Design (BERD). BERD provides services to CCTST investigators, ranging from advice on study design, grant application development, data management, and data analysis to career development support. BERD effectively interfaces with other CCTST programs and has served to generate methodologic research to advance clinical translational research (CTR). Methodologic advice, data management, and statistical analysis have been coordinated through Research Central, a web-based, campus-wide hub that has become the “go-to” place to find expertise and collaborators. BERD implemented an investigator support system, in which CCTST members are granted a one-hour session with a “concierge” methodologist (assessment and guidance), senior statistician (statistical analysis or planning), or data management expert (data acquisition and management) to provide high-level advice. Investigators who need methodological assistance for grant applications (study design, preliminary data, statistical analysis plan, power calculations) are invited to apply for CCTST-supported vouchers; or, if not eligible, are routed to other resources. BERD’s focus is to assist all CCTST investigators in developing successful grant applications, particularly promising junior investigators navigating the K-to-R transition and those who are underrepresented minorities. Therefore, junior faculty with career development awards (KL2, NIH-K equivalent awards) are also eligible for vouchers to support data management and analysis needs of their projects. BERD is also available to provide in-person or virtual presentations regarding accessing services at UC or CCHMC research faculty meetings. As of April 2020, BERD consultations (including consultations for data management needs) have supported 399 unique investigators: 92 new investigators thus far in 2019 and 2020. Thirty-three percent of investigators request multiple BERD consultations. Among the 399 unique investigators served by BERD, 317 (79.5%) were faculty; 54.5% of investigators were at the rank of Instructor or Assistant Professor. Trainees (clinical residents, fellows, students) comprised 12.5% (n=50) of the investigators seeking BERD support. Faculty who received BERD support represented 61 different specialties/subspecialties across campus along with 5 different schools or colleges across the campus. BERD faculty run seminars and special interest groups for methodologists; organize the CCTST Grand Rounds series; teach in the Master of Science in Clinical and Translational Research (MSCTR) program; mentor KL2 Scholars; provide methodologic expertise to all KL2 and CT2 Scholars and institutionally-funded K Scholars, both through the K Scholars peer mentoring group meetings and through access to vouchers; provide methodologic expertise to CCTST grant programs, such as the CCTST Pilot Translational and Clinical Studies Grant Program and the Processes and Methods grants.
**Biomedical Informatics (BMI)** offers resources and services to nearly all biomedically inclined investigators at both Cincinnati Children’s Hospital Medical Center (CCHMC) and the University of Cincinnati (UC) College of Medicine, through several, closely integrated Shared Facilities. Together, these groups are comprised of more than 80 personnel. Collaborative bioinformatics core capabilities exist at both UC and CCHMC to integrate biostatistics and facilitate data science initiatives. The Division of Biomedical Informatics at CCHMC and the Department of Biomedical Informatics at the UC College of Medicine work in close collaboration.

Research IT collaborates with the institution’s Department of Information Services while maintaining its own IT infrastructure. The two groups have a long history of close collaboration to support research, with a highly granular matrix of responsibilities, shared use of network and data security personnel, and common set of policies and procedures as applicable. Research IT offers a broad set of resources and services, including:

- High performance, secure and scalable network, storage, databases, and servers
- Central Identity and Access management system
- High performance computational cluster and open-source analysis software
- Cloud computing infrastructure and collaboration platforms for research
- IT helpdesk for research

Data and Technology Services is a collaborative development unit with expertise in a number of different areas, including web- and mobile-based software development and database programming. Staff are accustomed to working on complex multi-center research projects with advanced informatics aims. BMI’s Data and Technology Services offerings include:

- Developing software applications to support customized/personalized research workflows, as well as integrations with the electronic health record and other software/services
- Designing and hosting research databases, data marts, and registries
- Extracting electronic health record and other clinical information systems data for research purposes
- Developing web-based data reporting/visualization solutions
- Implementing custom data processing/analysis pipelines
- Developing customized research websites and web services compliant with industry and corporate standards

Operating at both CCHMC and UC, BMI Data Services specializes in complex extractions of data from the electronic health record (EHR) and other primary sources for research purposes. This group also helps to transform these data into common models for use in distributed research networks, and to develop and implement standards and infrastructure to support learning health systems, pending NIH Data Sharing and Management policies and other data and improvement networks. BMI Data Services oversees the development and implementation of the respective CCHMC and UC-based research data warehouses and develops data collection and reporting systems to support registries and multicenter learning networks, including serving as an honest broker and navigating investigators through compliance and data security issues.

The research data warehouses are also used to support CCHMC’s/UC’s participation in several distributed data sharing networks, including the Electronic Medical Records and Genomics (eMERGE) Network, the National Patient-Centered Clinical Research Network (PCORnet), and the Accrual for Clinical Trials (ACT) Network. Through these projects, staff in BMI Data Services have gained tremendous experience extracting data from the EHR and developing transformations into many of the most popular Common Data Models (CDMs), such as OHDSI/OMOP, i2b2, TriNetX and the PCORnet CDM. They have also gained experience developing and using analytical tools that are associated with each model. Additionally, the group oversees customizations of as well as complex extractions into and out of REDCap systems. BMI will also facilitate the new HL7 FHIR standard being rolled out at both institutions.

Bioinformatics Collaborative Services, (BCS), housed within the Division of Biomedical Informatics, serves as a collaborative nexus connecting bioinformaticians with basic/clinical researchers and provides bioinformatics services to Cincinnati Children’s researchers, helping them achieve their scientific goals in a timely and dependable manner. The team consists of highly experienced bioinformaticians who aim to ensure that researchers have access to state-of-the-art methodologies and applications. Beyond providing bioinformatics
support, the BCS promotes collaboration among various researchers and fosters a peer community for bioinformaticians throughout the institution. The BCS offers the following services:

- Bulk gene expression (RNA-seq, GSEA, expression arrays)
- Chromatin accessibility (ATAC-seq)
- Data storage and sharing
- Genotyping and variant calling (WGS, WES, genotyping arrays)
- Letters of support
- Protein-DNA interaction and Epigenetics (ChIP-seq, CUT&RUN-seq)
- Single-cell gene expression (scRNA-seq)
- Training

REDCap Support Services: The CCTST-supported REDCap (Research Electronic Data Capture) team aims to provide excellent translational research support to CCTST REDCap users. The team maintains a large, active REDCap instance (6,240 projects and 8,000+ users) and manages CCTST REDCap upgrades, installation, and external modules. REDCap access and support is fully subsidized by the CCTST and is provided free of charge to Cincinnati Children’s, UC, and CCTST community researchers. The REDCap team also provides a robust training and assistance program to users free of charge, which includes:

- Weekly in-person training and workshops
- One-on-one user consultations
- An online public knowledge base for frequently asked questions
- REDCap-help ticket system covering day-to-day user requests and questions

Ethics, Regulatory Knowledge & Support (ERKS). The ERKS program coordinates the resources of multiple initiatives centrally supported by the CCTST. The program provides institutional support to facilitate ethical, compliant research. Services include assistance with protocol development, data management, FDA filings, IRB applications, consent formulation, ethics consultations, as well as regulatory science and scientific integrity training. The CCTST has been actively supporting ethics and regulatory issues over the last year, including 2 Grand Rounds “When are Ethical Trade-offs in Research Acceptable: Balancing Social Value and Individual Risk (Seema Shah, Northwestern University) and “Unravelling the Complexities of Shared Decision-making in Pediatrics: Children’s, Parents’ and Healthcare Professionals’ Perspectives (Imelda Coyne; Trinity College). Jane Strasser, Ph.D., ERKS Director co-chairs the steering committee for the nascent Ethics Center at UC which will be a “first of its kind" linking academics and local businesses. With support from CCTST, the Center has initiated our first Ethics Bowl Team, has created and first Ethics Center Executive Director position, and is developing its web and social media presence. ERKS hosts a biennial ethics conference that continues to grow and build local, national, and international relationships. The 2019 edition, “Pushing the Boundaries: Scientific Innovation and Biomedical Ethics” had 70 people in attendance from across the country with keynote speakers including Sarah Chan, Ph.D. from University of Edinburgh, David Magnus, Ph.D from Stanford University and Alex London, Ph.D. from Carnegie Mellon University. Lastly, Holly Bante, Ph.D. and Rick Ittenbach, Ph.D., continue to convene a regional group of bioethicists from academic and hospital partners monthly to discuss local initiatives in clinical and research ethics. The group is currently focusing on refining a “drive-by” ethics consultation service offered at a Tri-Health hospital, and is planning to offer a seminar series responding to concerns on COVID-19.

Participant and Clinical Interactions (PCI). The Schubert Research Clinic (SRC) at CCHMC remains a real-time laboratory for investigators to acquire practical knowledge about clinical/translational research. It provides resources that enable investigators to perform high-quality, patient-oriented research at various venues across the Academic Health Center and the community. The Schubert Research Clinic, which is located on the first floor of the Clinical Sciences Pavilion (aka “Location T”) on the CCHMC main campus. The Schubert Research Clinic has 28 exam rooms: one preparatory lab with equipment for processing samples: a packaging and shipping room for clinical research samples: a metabolic kitchen for nutritional studies and teaching, body composition laboratory with DXA scanners: a vascular research laboratory and 3T magnetic resonance imaging. The Research Clinic can accommodate visits of less than ½ hour to greater than 10 hours and is equipped for subjects from infants to seniors. The clinic is fully staffed with 42 highly trained and skilled nurses, dietitians, medical assistants, research assistants, study coordinators and registration staff. The SRC also has admission privileges on a dedicated 12-bed inpatient unit located on the main campus for overnight (23-hour short stays and sleep studies) and inpatient research admissions.
We have a robust cadre of KL2, K12, and K23 recipients who depend upon the SRC resources to complete patient-oriented research studies. Our SRC staff, in collaboration with faculty staffing and the CCTST’s Research Central faculty and staff, register all approved protocols and provide excellent support in biostatistics, study design, regulatory and ethical challenges, data management, and services for optimal study performance that collectively encourage young investigators to pursue careers in clinical and translational research. Currently, there are 17 investigators from 11 UC divisions/departments and 59 CCHMC divisions utilizing the SRC. There has been a 35% increase in diversity of utilization between 2014-2017 on the SRC with a growing number of active research projects from 525 in 2017 to 632 in 2019. In 2019 there were 11,837 research visits in the SRC with 19,668 hours utilized. Study start up average occurs in less than 17 days.

Community Engagement Core (CEC). The CEC is broadening and strengthening collaborations between the AHC and community. The Community Leaders Institute (CLI), organized by the CEC, provides in-depth training in translational research over six weeks for community members and organization staff. Since 2010, this program has trained 204 community leaders representing more than 100 health organizations who have leveraged new knowledge and skills to obtain >$5.7 million in grant funding, with an ROI >26, and parts of the program have been implemented in 2 other CTSA hubs with a replication in one CTSA hub (University of Kentucky). We have collaborated with other local, regional and national initiatives (Community Solutions), and other CTSA hubs. The CE Program has replicated the CIRTification training developed by the University of Chicago CTSA. Our center is an active member of the Appalachian Translational Research Network including members from 10 CTSA hubs. Our practice-based research networks (PBRNs) are key stakeholder partnerships. The Cincinnati Area Research and Improvement Group (CARInG) consists of 38 family medicine, general internal medicine and medicine/pediatric practices and Federally Qualified Health Centers (FQHCs). Our pediatric PBRN, The Cincinnati Pediatric Research Group (CPRG) consists of 18 practices. The PBRNs are at the forefront of conducting research on disparities identified by community physicians and delivery of evidence-based care in community settings. To date, PBRNs have executed 56 studies, generated 28 publications, and secured 17 grants. The NIDA-funded EMPOWER project (Evaluating the Ability to Reduce Morphine Equivalent Dose for Chronic Pain Patients Receiving Opioid-Therapy through a Web-Based E-Health Self-Management Program) is an example. In 2020, we awarded 4 Community Health Grants and 3 Partnership Development Grants (designed to encourage collaboration between community members and academic partners, in order to develop fundable applications in the future), totaling $78,950.00 in funding (reduced because of budgetary restrictions necessitated by lack of NIH funding). Since initial funding of the CCTST in 2009, 65 Community Health Grants and 12 Partnership Development Grants totaling over $1 million have resulted in an ROI > 10. The CE Core has provided >100 consultations to help investigators, research teams, and community organizations identify partners, develop/refine research questions, use culturally-appropriate recruitment and study designs, mixed-method evaluations, and disseminate research findings to stakeholders and/or the larger community.

- Research Participant Advisory Council. The first research-focused patient and family advisory council, the Research Participant Advisory Council (RPAC), established in January 2015, continues to meet monthly. This 30-member council aims to provide a platform for research participants to engage with and advise CCHMC administration, faculty, and staff on research and its conduct at the AHC. The second research-focused advisory group, established in June 2016, is a community-based advisory board in the West End (WE-CRAB), a low income, urban Cincinnati neighborhood. The focus of this group is to provide community perspective and feedback on community research issues. The group has worked on 8 research studies over the past year, including 3 that have been funded and include community partnership with the WE C-RAB.

Translational Workforce Development (TWD). The CCTST Translational Workforce Development Core manages the MS and Certificate programs in Clinical and Translational Research (CTR). In academic year 2019-2020, 21 new students were enrolled in the MSCTR program (Principal Investigator [PI] track) to bring the total current enrollment to 47 in the PI. In addition, a new MS - Clinical Research Professional (CRP) track was launched in 2019-2020 with 5 students enrolled. The MS program graduated 20 students this year, bringing its total number of alumni up to 206. The Certificate program enrolled 44 new students and graduated 41 alumni, adding to an overall total of 52 current students and 181 alumni. Steady enrollment in these two flagship programs allows the CCTST the opportunity to develop new programs in innovative directions. A new track in the MS program has been implemented to support Clinical Research Professionals. Two new
Certificates in Community-Engaged Research and Translational Regulatory Science have been proposed but not yet implemented. TWD has also expanded educational opportunities for students through the ongoing development of courses. This core has engaged clinical research professional and regulatory groups across the AHC to better define training and professional development pathways for study staff, including development of training competencies for acute care researchers, team science training in collaboration with the Center for Improvement Science, and continuing education credit for several existing seminar series and rounds. The rollout of CTRonline, an online library of training modules designed to provide instruction on specific task-related activities, has been implemented with 20 modules now available on demand with more to be developed over the coming year. This offers a unique resource to our members to support their growth as more effective investigators. TWD also launched a series of Health Science Cafes geared towards engaging community members on health research topics in an informal setting.

**KL2/CT2 Career Development Awards.** The CCTST is home to the KL2 Career Development Award Program. The vision of the KL2 program is to successfully train the next generation of diverse, multidisciplinary junior faculty leaders in clinical and translational research (CTR). These leaders will have the skills to: 1) conduct innovative, team-based, community-engaged clinical and translational research, 2) develop sustainable careers in clinical and translational research, and 3) disseminate and implement research findings that improve health outcomes and reduce disparities. The KL2 Program strongly encourages applications from members of underrepresented racial, ethnic, and socioeconomic groups as well as candidates with disabilities. The KL2 program provides financial support for salary and research-related expenses for up to 2 consecutive years to highly qualified junior faculty pursuing careers in CTR. During the award period, Scholars are expected to pursue their own K23 or similar individual career development awards or R series grants. The KL2 Program was initially funded in 2009, and since then, has appointed 24 Scholars (20 graduates, 4 current scholars) who have been highly successful. Current and previous Scholars have published a total of 674 manuscripts since they were appointed: a mean of 34 per Scholar. All 20 (100%) graduates of the program have served as PI or co-I of an externally-funded CTR grant, and 95% graduates of the program have transitioned to sustained careers in CTR. The CCTST’s KL2 program is closely linked with the TWD program. As such, KL2 Scholars can easily take courses in the MSCTR program or the Certificate in Clinical and Translational Research program. Many resources are available to KL2 Scholars in addition to their individual coursework, research, and mentoring experiences, including K Club and the K Scholars peer mentoring meetings. Anyone with a career development award, or who is planning to apply for a career development award, is invited to join the K Club, an informal forum for discussing topics of interest to attendees related to research, career development, and team science. The K Scholars meetings occur twice monthly and are peer mentoring sessions in which Scholars not only receive invaluable feedback on their current and planned research, but also learn to understand and value the perspectives of other clinical and translational researchers not in their field.