The UCLA Clinical and Translational Science Institute (UCLA CTSI) provides the infrastructure to bring UCLA innovations and resources to bear on the greatest health needs of Los Angeles and the nation. It is a dynamic partnership among UCLA Westwood, Charles Drew University of Medicine and Science, Los Angeles Biomedical Institute at Harbor UCLA Medical Center, the Burns and Allen Research Institute at Cedars-Sinai Medical Center and our Los Angeles community.

The UCLA CTSI is organized into nine program areas, through which the CTSI achieves its five main goals: (1) create an academic home for clinical and translational science; (2) build transdisciplinary research teams to accelerate and translate discovery; (3) transform educational and career development programs to promote the next generation of clinician investigators and translational scientists; (4) build and expand strong bi-directional academic-community partnerships; and (5) serve as a national resource for collaborative research.

a. Accomplishments

Pilot and Collaborative Clinical and Translational Studies Program (Pilot)
- Funded, co-funded or supported 53 awards that leveraged $738,000 in direct CTSI funding with $1.1 million in institutional matching.
- Awarded our first Team Science Cluster Grants to support community-partnered, transdisciplinary research in melanoma, mental health, ovarian cancer, and stroke.
- Developed an online pilot grant application and a software tool to facilitate reviews.
- Received and are currently reviewing 23 competitive applications from junior faculty for CTSI Scholar Awards.
- In partnership with the Business of Science Center, awarded Prototype Awards to seed two faculty inventions—a potential therapeutic for genetic disorders and a tool for pre-clinical research.

Clinical and Community Research Resources Program (CCRR)
- Provided state of the art clinical support for 404 ongoing research projects and 79 new protocols for a total of 4,799 outpatient visits and 210 inpatient stays across the CTSI.
- Drafted and implemented CTSI-wide standard operating procedures for commonly requested procedures, including vital signs, EKG, glucometer checks, phlebotomy, and IV access and maintenance.
- Developed a CTSI-wide service application for use by all Clinical and Translational Research Centers (CTRCs).
- Developed cost-sharing model for all CCRR services in proactive response to challenging fiscal climate.

Research Education, Training and Career Development Program (CTSI-ED)
- Awarded three outstanding KL2 scholars from a pool of 28 highly competitive candidates—10 from basic science, 11 from clinical research and seven from health services research.
- Selected four excellent TL1 fellows from a pool of doctoral students in the Department of Health Services at the UCLA School of Public Health.
- Developed an online application for our TL1 Professional Student Program, which will pair 10 first-year medical students with translational science mentors.
- Selected a software platform for our CTSI Curriculum Tree and expanded course offerings.
- Quadrupled to 12 from three the number of students enrolled in our Master of Science in Clinical Research program

Community Engagement in Research Program (CERP)
- Interviewed and surveyed community partners to characterize their clients, services, geographic areas, and priorities, and identify barriers to and facilitators of participation in research.
- Planned and sponsored three community-academic symposia attended by a total of 715 participants.
- With three community partners, formed the Community Health Worker (CHW) Initiative with the goal of using CHWs to support community-based health services and research projects in partnership with CCRR.
Partnered with LA County to implement and evaluate initiatives to improve health outcomes through evidence-based prevention and disease management.

Initiated two e-health pilots with the Magnolia Street Initiative, a community partner.

Center for Translational Technologies (CTT)
- Evaluated and assessed cores across the CTSI to develop a searchable, online database of more than 60 cores and hired two well-qualified technology officers to assist investigators.
- Awarded 19 vouchers worth approximately $170,000 in core services as part of a staged rollout of our voucher system and developed an RFA for a CTSI-wide voucher program.
- Formed a partnership with the UCLA Shared Resources Consortium to leverage our resources and achieve efficiencies in acquiring, developing, maintaining and sunsetting cores.

Regulatory Knowledge and Support, Industry Relations and Research Ethics Program
- The Office of Investigator Services (OIS) recruited two highly qualified research facilitators and responded to 112 inquiries during our first five months of operation.
- Achieved a multi-institutional MOU among the IRBs at all CTSI institutions to use the Reliance Review Model, which minimizes duplicative IRB reviews.
- Identified and inventoried Responsible Conduct of Research (RCR) courses offered throughout the CTSI and initiated an eight-course curriculum for continuing education of research team members.

Biostatistics, Study Design and Clinical Data Management Program (BSD-CDM)
- Implemented a “one-stop” statistical consulting service that provided 3,925 hours of statistical consulting to 244 investigators on 260 projects; three projects were collaborations with other CTSAs.
- Initiated collaborations on novel clinical trial designs, two of which have resulted in manuscripts that have been accepted for publication—one by Biometrika and the other by Chest.
- In partnership with CTSI-ED, offered our first video-conferenced statistics course.

Biomedical Informatics Program (BIP)
- Developing eight top priority software applications based on meetings with the program areas.
- Created a sequence of three, three-hour informatics seminars for the Training Curriculum Program (formerly the NCRR K30), and defined a specific certificate program focused on informatics.
- Created a custom content management system (CMS) on the Virtual Home to empower members to edit and control contact within their own program-areas.
- Recorded 22,236 Virtual Home visits and more than 120 new member registration requests.

Evaluation and Health Sciences Research Program (E/HSR)
- Held 19 meetings with leaders of eight program areas to develop baseline metrics, assess alignment of program activities with CTSI mission and goals, identify implementation and integration concerns, and determine priorities for data systems.
- Held a planning retreat attended by CTSI leadership and community members to assess Yr.-1 accomplishments, set a course for Yr.-2 and develop plans for a self-sustaining Center for Evaluation and Health Services Research.

Administration
- Established an administrative structure and recruited a professional management team to carry out the activities of the CTSI. ■ Anne Skinner, our Administrative Director, manages the day-to-day operations of the CTSI. She is the former administrator of the Division of Pulmonary and Critical Care Medicine in the UCLA Department of Medicine and has 15 years of experience in administration, financial management and training program management. ■ Matthew McPeck, our Financial Officer, is the former financial officer for the Broad Stem Cell Research Center and has more than 10 years of financial management experience in academia and industry. ■ Denise Gellene, MBA, a former Los Angeles Times business and science writer with more than 30 years of experience in journalism, supports our communications, grant writing and development efforts. ■ Emily Sondergaard and Jessica Byrne provide crucial administrative support.
- Beginning in June, 2011, the Executive Oversight Committee (EOC) held weekly meetings to affirm the operational agenda of the CTSI.
Recruited our Internal Advisory Board (IAB) and held our first meeting on Nov. 21, 2011. It is chaired by James S. Economou, MD, PhD, UCLA Vice Chancellor for Research. The following academic leaders join on our IAB:
- Richard S. Baker, MD (Provost and Dean, College of Medicine, CDU)
- Robert H. Brook, MD, ScD (UCLA/Rand)
- Richard H. Casaburi, MD, PhD (Harbor-UCLA)
- Judith Gasson, PhD (Director, Jonsson Comprehensive Cancer Center at UCLA)
- William G. Ouchi PhD, (Anderson School of Management)
- Steven Piantadosi, MD, PhD (Director, Samuel Oschin Comprehensive Cancer Institute at Cedars-Sinai)
- Vivek Shetty, DDS, DMD (UCLA Dentistry)

Recruited our External Advisory Board and set its first meeting for early 2012 (see EAB report).

b. Challenges

Our first challenge was to reconcile our proposal to the final award. The programs were allocated the budgets as requested for the shortened Yr.1 but were asked to make cuts in Yr.-2. We elected to continue the unfunded K30 program as the CTSI Training Curriculum Program. Transitioning our CTRCs to enhance community-based research required extensive reorganization. As noted above, we developed and are implementing cost-sharing in our CTRCs.

c. Integration and Innovation

One of our highest priorities is to integrate activities across all four of our CTSA partner sites. The barriers are both geographic (Los Angeles driving distance and traffic) and cultural, with historic institutional and departmental silos. But these challenges offer opportunities for synergistic team science. In response to this challenge, the UCLA CTSI created an Integration Committee, composed of 10 members, two from each of four CTSI partners and two from among our community partner organizations. The committee chair is an investigator at Cedars-Sinai. All meetings are held on a rotating basis among the partner institutions. The committee was charged with (1) creating new opportunities for team science across the four partner institutions, (2) incorporating new partners that were not named in the funded application, and (3) defining the focus of Evaluation & Health Services Research. The following initiatives were activated or advanced by the Integration Committee.

- **MCAH Initiatives.** At our CTSI-sponsored retreat for Maternal, Child and Adolescent Health held on November 22, 2011, three team science proposals emerged with representation from all four CTSI partner institutions, the Los Angeles Unified School District and Los Angeles Department of Public Health: (1) quality of mental health for children in Los Angeles County; (2) impact of fetal programming and early childhood development; and (3) behavioral interventions to influence health childhood nutrition and reduce obesity in Los Angeles County school children. These proposals are eligible to compete for Team Cluster Grants of up to $250K each. An RFA is to be released in early 2012.

- **Rapid Response Team (RRT).** Establishment of a RRT to promote the rapid creation of multi-institutional teams of like-minded UCLA scientists and grant writing support in response to federal funding opportunities with extremely abbreviated response times (e.g., PCORI grants, Health Care Innovation Challenge grants). For example, the RRT facilitated 18 PCORI grant applications for a December 1, 2012 deadline involving scientists from each of the four partner sites and the RAND Corporation.

- **Pipeline Programs.** Our pipeline program was instrumental in bringing minority high school students from Health Services Academy and the Long Beach Polytechnic High School Biomedical Scholars to campus on November 1, 2012 for activities related to the UCLA Common Book (CB), “The Immortal Life of Henrietta Lacks;” this event, while educational for the high school biomedical students, is also being leveraged to attract additional extramural funding from the Drown Foundation, the NIH-sponsored Science and Education Partnership Award (SEPA) program and the Howard Hughes Medical Institute to expand the UCLA Biomedical Scholars Curriculum to an East Los Angeles minority high school environment.

- **CCRR.** The CCRR is working to allocate complex study subject resources to partner sites best equipped to handle them. For example, CTSI-sponsored, prolonged inpatient stays as well as special
dietary requests will be handled at Harbor-UCLA, while sleep studies will be performed in the newly constructed sleep unit on the Westwood campus.

- **New Partnerships.** We reached out to research scientists at Kaiser-Permanente Southern California Medical Group, which historically has had limited research collaborations with our CTSI partner institutions. A new IRB protocol has been submitted to Cedars-Sinai and is being prepared for parallel submission to the Southern California Kaiser IRB to formalize a new collaborative community-based research project and a new R01 submission.

- **Strategic Planning Retreat for CTSI Health Services Research.** We held a full-day strategic planning retreat at Cedars-Sinai on Saturday, December 3, 2011 with 67 attendees from all four partner institutions and community partners from Healthy African American Families, RAND, Los Angeles County Department of Health Services, Mission Community Hospital, as well as potential new partners from the West LA Veterans Affairs Hospital, and Olive View Medical Center. The theme of the morning session was how to create a high-impact CTSI, with a culture of integration and effective community-academic partnerships. The theme of the afternoon session was to develop specific priorities for Evaluation and Health Services Research and mechanisms for collaborative efforts to achieve them.

### d. Future Direction of the UCLA CTSI

**Status of the program in meeting milestones and timelines**

The program areas have met or are expected to meet the majority of the milestones for Yr.-1. (Please see the program-area progress reports elsewhere in this document for more details.)

**Milestones proposed for the coming year**

The Yr.-2 milestones for the program areas are unchanged from our initial proposal.

At our strategic planning retreat, we identified five specific initiatives as critical to integration and achieving the goals of our CTSI (Table 1). We will emphasize these initiatives in the coming year (see Objective 3, Self-Evaluation Report for more detail).

<table>
<thead>
<tr>
<th>UCLA CTSI Goal</th>
<th>Initiative</th>
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<tbody>
<tr>
<td><strong>Goal 1:</strong> Create an academic home for clinical and translational science</td>
<td>Expand and improve services offered through the Office of Investigator Services. Provide a user-friendly communication platform on the Virtual Home for addressing all stakeholder needs and priorities.</td>
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<td><strong>Goal 2:</strong> Build transdisciplinary research teams to accelerate and translate discovery</td>
<td>Use Team Cluster Grants to identify best practices for building transdisciplinary teams and monitoring their productivity and impact on health.</td>
</tr>
<tr>
<td><strong>Goal 3:</strong> Transform educational and career development programs to promote the next generation of clinician investigators and translational scientists</td>
<td>Continue to expand and improve CTSI educational programs through the Training Curriculum Program and the online Curriculum Tree offerings. Create a higher order infrastructure for research and training programs across the CTSI partners.</td>
</tr>
<tr>
<td><strong>Goal 4:</strong> Build and expand strong bi-directional academic-community partnerships</td>
<td>Establish Community Centers of Excellence for conducting and increasing the capacity for community-partnered research (formerly Community Centers in Health Education and Translational Research). Demonstrate measurable health improvement in the 70-block Project and the Magnolia Initiative Project. Through the Community Health Worker Initiative, integrate CCRR and CERP.</td>
</tr>
<tr>
<td><strong>Goal 5:</strong> Serve as a national resource for collaborative research.</td>
<td>Integrate with University of California Biomedical Research, Acceleration, Integration &amp; Development (UC Braid).</td>
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**Table 1. Strategic Initiatives by Goal**
e. Institutional Commitment

In our 2010 submission, we reported institutional commitments of $73.25 million to the UCLA CTSI from the four partner institutions. This figure included team-based research staff and faculty support; a research data repository commitment; and commitments for faculty recruitment, a clinical trials management implementation system, clinical research, bio-banking, research imaging and informatics infrastructure. In addition, our partner institutions provided space commitments worth $202.2 million. These commitments remain operational.

f. Collaborations with Institutions or Organizations outside the UCLA CTSI

The five UC medical campuses with CTSAs, in collaboration with the UC Office of the President (UCOP), have formed a collaboration to enhance clinical and translational research efforts. The UC Biomedical Research Acceleration, Integration, and Development (UC BRAID) program has identified several key areas for attention, including:

- **Contracting.** Accomplishments include UC-wide master clinical trials agreements with 10 major companies; piloting a UC-wide contacts database; and online training for clinical trials negotiators.

- **UC Research Exchange Consortium (UC ReX).** UC ReX is developing the IT infrastructure and support for an integrated clinical data repository for data collected across all five UC health campuses for research or quality improvement under a common cross-institutional IRB approval process.

- **Institutional Review Board.** The Memorandum of Understanding among the UC medical campuses has been expanded and enhanced to include greater-than-minimal-risk studies.

UCLA CTSI participates in the California CTSA Education Consortium with the UC campuses with CTSAs, the University of Southern California and Stanford University. In addition, our investigators have formed collaborations across multiple CTSAs. For example, our BSD-CDM investigators are collaborating with CTSA researchers at USC, the University of Pennsylvania and the University of Florida, Gainesville.

g. Significant Clinical or Translational Science Advances

We solicited and vetted nominations for CTSI Recognition Awards for the best 2011 publications representing transformative translational science. The awardees are invited to present their work at an awards ceremony. Awardees are listed in Table 2.

<table>
<thead>
<tr>
<th>Author</th>
<th>Publication</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Denise R. Aberle</td>
<td>Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening, New England Journal of Medicine, Aug. 4, 2011. Role of Nutritional</td>
<td>UCLA-Westwood</td>
</tr>
<tr>
<td>Helen Goodridge</td>
<td>Activation of the innate immune receptor Dectin-1 upon formation of a ‘phagocytic synapse’. Nature. 2011</td>
<td>Cedars-Sinai</td>
</tr>
<tr>
<td>Mark Pimental</td>
<td>Rifaximin Therapy for Patients with Irritable Bowel Syndrome without Constipation. New England Journal of Medicine. 2011</td>
<td>Cedars-Sinai</td>
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Table 2. Recognition Award Recipients