UC Davis
Clinical and Translational Science Center
10 year celebration, 2006-2016
Lars Berglund, MD, PhD
Director/PI
In the beginning:

18 months of team building, 7 major projects and 1,400 pages brought us to a GCRC site visit
A bold and ambitious start – obtained GCRC funding at first application attempt

NIH Funds New General Clinical Research Center

The National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH), announced funding for a new General Clinical Research Center (GCRC) with the University of California (UC), Davis, at the Sacramento Veterans Affairs Medical Center. NCRR will award about $5.5 million to support 5 years of clinical research at the new GCRC, including operating expenses, hospitalization and ancillary laboratory costs, and salaries of key personnel.

...necessary infrastructure for the new GCRC since March 2000. A state-of-the-art clinical research unit was constructed, with 7,500 square feet designated for the GCRC clinic, laboratory, and administrative space.

The center will be managed and administered by UC Davis faculty and staff, with Lars Berglund, professor of medicine and assistant dean for clinical research at the UC Davis School of Medicine and a physician at VANCHCS, serving as program director at the new...
From GCRC to CTSC in 1 year

GCRC at VA Northern California Health Care System

UC Davis CTSC
CTSC Evolution

Incubator: A Transformative catalyst 2006

Workforce, Service and Improved health 2016
CTSA 10-year History

UC Davis

CTSA 2006

CTSA 2016
Since the inception of the CTSC

NIH funding for UCD SOM: \( \uparrow \) 80%

UC Davis Ranking went from 51\(^{st}\) \( \rightarrow \) 30\(^{th}\)

CTSC received 18 NCRR/NCATS supplemental awards
Evaluation

- Example of CTSC return-on-investment for developing high-quality support mechanisms responsive to faculty, institutional, and national needs

- Since 2007, the evaluation team has contributed to 63 grant proposals

- Evaluation-assisted proposals have had a 68% success rate

- Contributes to workforce development objectives
  - 3 Social Network Analysis Workshops
  - Qualitative Health Research Symposia

- Leading national efforts for CTSA common metrics development
Developing a Diverse, Competent, and Successful Workforce

- Supporting team-based interdisciplinary science
- Professionalize all aspects of research management – skills development
- Create a toolbox for entrepreneurship activities
- Broadening career development beyond traditional faculty positions
- Enhancing staff quality and skills
- Team-based education programs creating a critical mass of translational researchers
Workforce Development

- CTSC established comprehensive, multi-tiered training in Regulatory Knowledge – 769 participants in 2014 alone

- 27 KL2 and 72 TL1 scholars trained since inception

- Served as the foundation for three K and several T NIH awards

- Received one of 17 NIH BEST awards
  - 593 participants and 3,000 scholars involved in BEST activities in 2 years
The number of scholars and diversity of research disciplines served by CTSC training programs has steadily increased.
K12 scholars

- 13 of 22 scholars received NIH funding
  - Prestigious foundation awards
- 989 publications, H-index 13.5
- 3 patents
- Leadership roles
  - NIH program officer
  - Associate Dean
  - Professional Society Officers
  - Scientific Advisory Boards
  - State Agencies
CTSC KL2 Training Program

Integrated Training
- CTSC KL2
- CTSC TL1
- Affiliated Ks
- Institutional Ts
- Core Competencies

Mentoring Teams
- Diverse Faculty across Schools and Colleges; range of domains
- Mentoring Academy

CTSC Resources
- Community
- Translational Endeavors
- Research Methods
- Hub Research Capacity
- Network Capacity

UC Davis Resources
- Academic Resources
- Centers and Institutes
- Schools and Colleges

Science Leaders
Staff Education and Training Highlights

- CITI training is standard
- CTSC supplements with tiered approach to education
  - CTSC 1.0 - Introductory Course
  - CTSC 2.0 - Basic Course
  - CTSC 3.0 - Advanced Course
- Monthly Brown Bags - supporting FUTURE grant
  - What is new and exciting in clinical research around the world
- Specialized In-Service training
- CRC Mentoring Program
- CRC Recognition Event - joint with ACRP (Association for Clinical Research Professionals)

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<th>Educational Event</th>
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<td>CTSC 3.0 Advanced</td>
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<td>In-Service trainings</td>
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NIH Director’ BEST Award - Frontiers of University Training to Unlock the Research Enterprise (FUTURE)

- NIH Director’s Broadening Experiences in Scientific Training (BEST) initiative – funded in first cycle 2013
- New training opportunities in Entrepreneurship, Policy, Industry internship, Science communication, and Project management for graduate students and postdoctoral fellows
CTSC has served thousands of investigators.

Requests for services have increased 3 fold in the past 5 years

AFRU requests for CTSC services
(CCRC=CTSC Clinical Research Center, RKS=Regulatory Knowledge and Support)
Informatics

- Provides access and *train-the-trainer* approach for informatics tools such as REDCap and Cohort Discovery
- Through Cohort Discovery and UCRex, **14 million patient** records are accessible
- Leadership in Data Science Institute and UC Davis Research Informatics
- Participation in ACT and IRBRely
- Partner with School of Veterinary Medicine to develop faculty profiles (SciVal)
- Partnering in several PCORI projects
Methods and Processes

- Developed **TRICC** as mechanism to implement metrics and impact on institutional processes.

- Through UC BRAID developed UC IRBRelly mechanism.

- Reduced IRB and contract negotiating time by 80 and 25 days, respectively.

- Integrated the UC Reliance where average length of time for approval is **12 days**.

- Mapped institutional study processes to streamline study initiation and conduct.

- Since 2011, CTSC programs have met **82%** of 197 stated benchmarks.
Collaborative Pilot Projects

- 176 CTSC pilot projects
- Interdisciplinary (SOM – 81, COE – 62, CAES – 4, CBS – 3, CLS – 2, SON – 1, SVM – 1)
- 376 trainees
- 30-fold return on investment
- Linked to workshops and symposia
- Model program (WCMC, Behavioral Center of Excellence)
Scientific output:
CTSC has supported more than 1,300 publications in over 500 journals. These have been cited more than 34,000 times which is 2.7 times the global average.
Solano County: Translational Transformative Model

OVERARCHING GOALS

1. Develop collaborative network of community, county, and community-based organization leaders
2. Design and implement CLAS policies, procedures, and programs and evaluate outcomes
3. Address the mental health needs of three of Solano County’s most underserved communities (i.e., Latinos, Filipino-Americans, and LGBTQ)
4. First County to design a multi-phase Innovation training and transformation project that combines CLAS with community engagement
Clinical Trials Support

Design
- Research Methods
- Informatics
- Hub Research Capacity
- Workforce

Initiation
- Hub Research Capacity
- Informatics

Conduct
- Informatics
- Research Methods
- Hub Research Capacity
- Identify eligible subjects
- Informed consent
- Randomize
- Adherence / Quality
- Data/Safety Monitor

Completion
- Hub Research Capacity
- Research Methods
- Community
- Cost distribution/billing
- Statistical analysis
- Publication
- Dissemination
New models of technology-based medicine to advance research capabilities
CTSC Impact

NIH West Coast Metabolomics Center (Outreach and Pilots)

Intellectual and Developmental Disabilities Research Center (MIND Institute)

Hartwell Foundation (6 funded investigators, 3 pilot recipients)

W.M. Keck Foundation (Pilot recipient)

NIH BRAIN Initiative (3 funded investigators)

VA Merit Awards (25 active in 2014)

16 NIH R01s (15 School of Medicine, 2 pilot recipients)

SBIR (2 PIs)

UC BRAID (UC Engage, ACT, GCP, IRB Reliance, UC Center for Accelerated Innovation)

FUTURE (NIH BEST) (CTSC and Graduate School of Management)

Campus Research Investments in Science and Engineering (5 investigators)

California Institute for Regenerative Medicine (4 Disease Team grants)

Radiochemistry Research and Training Facility (Partnership with industry)

Center for Children’s Environmental Health (MIND Institute)

PECARN

PCORI/HRSA (6 funded investigators)

UC DAVIS CLINICAL AND TRANSLATIONAL SCIENCE CENTER