



# Impact Report

## 2024-2025

# About CTSI

The Clinical & Translational Science Institute (CTSI) advances clinical and translational research to improve the health of all communities. We do this by providing services, resources, infrastructure, and training that enable research to be conducted more efficiently, effectively, and innovatively.

CTSI develops broad coalitions and partnerships at the local, regional, and national levels to strengthen the research environment, bolster community and population health priorities, and disseminate translational science innovations.

## Mission

Our mission is to **accelerate research to improve health.**

## Vision

Develop, implement and disseminate Translational Science innovations that drive transformative research, improve health and enhance care delivery.

We put this mission and vision into practice by:

- Designing, testing, and delivering Translational Science tools, services, infrastructure, and training
- Catalyzing institutional and structural change to strengthen the research environment
- Promoting partnerships and collaborations that broaden and enrich Translational Science impact
- Disseminating and implementing these Translational Science endeavors



# Message from Leadership: Celebrating 20 Years of CTSI Impact!

I am excited to mark the 20-year anniversary of CTSI with the opportunity to highlight and celebrate the accomplishments of our outstanding programs this past year in the Impact Report. Since 2006, CTSI has been steadfast in our mission to provide essential services, resources, infrastructure, and training to accelerate innovative clinical and translational research.

As we enter our third decade, we reflect on the transformative impact of CTSI programs including:

- **UCSF Profiles**, searched by 965,000 people annually and cited by all major media outlets.
- **The Research Allocation Program (RAP)**, created at CTSI, now serves as the central infrastructure for 30 intramural grant mechanisms.
- **The K Scholars Program**, research training and professional development for 70 early-career faculty each year to ensure success for the next generation of research leaders.
- **Community-based participatory research**, key collaborations with community-based organizations throughout the Bay Area.
- **APex-Enabled Research (AER)**, Apex modifications and enhancements for research.
- **EHR-based Participant Recruitment**, automated identification, contact, and tracking of eligible study participants.
- **Clinical Research Service and Biospecimen Processing Lab**, supporting 300 clinical research protocols per year across 6 clinical sites and the largest UCSF biobank.

Over the last year, we have continued to build on our track record of excellence. We launched new informatics innovations to advance the Learning Health System, markedly expanded long-term storage for biobanking, initiated the first CTSI Community Advisory Board to center community voices in our programs and activities, and served 1,200 faculty, staff, and trainees in our research training programs.

We also underwent an extensive strategic planning process to support submission of the CTSI grant renewal in May 2025. We engaged with over 300 researchers and health system and community-based partners to propose new innovations that will catalyze clinical and translational research. This planning process ensured that in a dynamic research environment, we are adept and prepared to continue driving forward our mission to accelerate translational research.

The success of CTSI is driven by the talent, creativity, and commitment of our program staff and faculty, and the co-leadership of Dr. Tung Nguyen, Associate Vice Chancellor of Research Opportunity and Impact, and Dr. Harold Collard, Vice Chancellor for Research, the MPIs of the CTSI grant. Together, we kick-off the next decade of CTSI with unwavering commitment to support continued advancements and success in our research enterprise.

Sincerely,



Vanessa Jacoby, MD, MAS  
Director, Clinical and Translational Science Institute  
Professor, Obstetrics, Gynecology, and Reproductive Sciences  
Associate Vice Chancellor for Clinical Research (AVC-CR)  
University of California, San Francisco



# Impact by the Numbers

## Annual Research Support

- **200+**  
Protocols supported through  
research nursing
- **50,000+**  
Biospecimens processed, across  
**300+**  
study protocols

## UCSF Profiles

- **1.5M+**  
Annual site visits
- **9,500+**  
Profiles hosted
- **240,000**  
Publications featured

## Pilot Funding, Since 2021

- **44**  
Pilot grants awarded
- **\$1.5M+**  
Awarded, and led to  
**\$5.9M+**  
new extramural funding

## Training and Consultations

- **40**  
Courses and training programs  
offered to **faculty, staff, and  
trainees**
- **1,200+**  
Learners trained annually
- **1,000+**  
Consultations provided annually



# Programs

## Infrastructure & Resources

Bioethics & Regulatory Engagement Program  
Supports researchers in navigating bioethics, regulatory and compliance issues and advocate for improved efficiency of the regulatory approval process.

Clinical Trials Operations (CTO)  
Identifies, assesses, and prioritizes barriers to inclusive and efficient trials, and stewards solutions to challenges that impact clinical trials operations.

Informatics & Research Technology Program  
Enables the effective use of clinical and other data alongside information technologies, including digital health, the EHR, and AI, to accelerate research and research administration.

Pilot Awards  
Advances clinical and translational research at UCSF by providing targeted funding that catalyzes innovative, high-impact projects.

Team Science  
Fosters multidisciplinary, broadly engaged research by providing training, resources, and support that strengthen collaborative team science across UCSF and its community partners.

## Training & Career Development

Workforce Development Program  
Provides research education and training across career stages, from undergraduate students to faculty through 7 distinct programs.

## Research Services

Biospecimen Processing Lab  
Provides high-quality biospecimen acquisition, processing, storage, and management services to support UCSF research.

Clinical Research Services  
Provides adult and pediatric research nursing services through a network of research centers that translate promising clinical research ideas into successful protocol implementation.

Consultation Services Program  
Offers expert guidance to investigators across diverse research fields at every stage of the research lifecycle.

Participant Recruitment Program (PRP)  
Strengthens UCSF research by providing programs and tools that help research teams meet recruitment goals efficiently and effectively.

## Policy & Community

Community Engagement Program  
Bridges academic research, health policy, and community practice to advance public health.

Impacting Practice & Policy (IMPACT) Program  
Provides resources and training that accelerate the adoption of evidence-based policies across healthcare, government, industry, and other sectors.

Research Action Group for Equity (RAGE) Program  
Provides support and infrastructure to increase research participation and expand health sciences workforce opportunities for all populations.

# Driving AI Innovations

CTSI recognizes the **critical role that AI plays** in clinical research and care and is building the tools, resources, and infrastructure needed to support responsible and effective AI use across the research enterprise. CTSI advances innovation in this space through AI-focused **training** and **targeted funding** opportunities, as well as **pilot projects** exploring unique AI applications.

## Social Media Powered Participant Recruitment

The **Participant Recruitment Program (PRP)** collaborates with study teams to recruit participants through Facebook and Instagram ads that engage specific audiences at the local, state, and national levels. To streamline start-up, PRP uses **AI-assisted tools** to support the development of **customized advertising strategies** that incorporate plain-language requirements, recruitment best practices recommendations from the scientific literature, IRB and FDA guidance, and platform-specific compliance requirements. The AI-assisted workflow **reduces start-up time** for the advertising strategy from **10-15 days to 1-2 hours**, and supports more efficient participant recruitment.

## Bridging the Language Gap

In partnership with the Informatics & Research Technology team and the Institutional Review Board, the **Research Action Group on Equity (RAGE)** program piloted the use of Versa AI to translate patient **consent documents** into Spanish. The CTSI team first used IRB template language to compare human-generated and AI-generated translations. In the second phase, CTSI partnered with a research team in the UCSF Department of Cardiology to pilot the use of Versa to translate a **study-specific consent form**.

UCSF and community partners reviewed both AI and human translations for cultural and linguistic accuracy, and found that while **Versa produces satisfactory Spanish translations**, human review remained essential to ensure quality and appropriateness. Findings from this pilot will inform the development of **future best practices** and training for AI-assisted translation.

## → AI Pilot Awards

The **Informatics & Research Technology (IRT)** team partners with UCSF Health leadership to sponsor the Artificial Intelligence/Machine Learning Demonstration Projects program, which aims to advance UCSF as a Learning Health System by developing and delivering effective and ethical AI applications within the healthcare delivery system. In the 2025 cycle, **two projects were funded** out of 40 submissions.

The program has demonstrated strong translational potential; for example, work led by Priya Ramaswamy, MD was published in *NEJM AI* in November 2025: *“AI-Guided Surgical Blood Readiness: Overcoming Real-World Challenges in Prospective Validation for Safer, More Efficient Blood Preparation.”*

# Advancing Care Across Health Systems

CTSI supports advancements in healthcare delivery through **research nursing, biobanking, and programs** that advance UCSF as a Learning Health System.



## Clinical Research Services

CTSI provides research nursing and biobanking support across the UCSF research enterprise through **Clinical Research Services (CRS) and the Biospecimen Processing Lab (BSPL)**. These services support a wide range of complex clinical research protocols that lead to breakthroughs in health research.

**Spotlight:** At the Mission Bay CRS, Elliot Stieglitz, MD, Associate Professor of Pediatrics, is partnering with CRS research nurses to conduct a clinical trial of an oral small-molecule menin protein inhibitor that disrupts gene expression. The goal of the study is to improve outcomes for children with recurrence of leukemia.

### Research Nursing for

→ **200+ Protocols**

### Biospecimen Processing Lab

→ **50,000+**  
samples per year

## Learning Health System Model

CTSI partners with IT, SOM Tech, and UCSF Health to implement **APeX-Enabled Research (AER)** to improve care through a Learning Health System model. The AER service, incubated at CTSI, helps researchers use APeX (Epic) for research by guiding them through the technical and compliance requirements of working with the Electronic Health Record, enabling the **implementation of algorithms, digital tools, and interventions** designed to improve care delivery.

**Spotlight:** The Precision Pain Medicine project uses in-hospital postoperative opioid use to generate personalized discharge pain medication recommendations and will compare opioid refill rates before and after implementation. This project leveraged AER to develop the best practice alert (which fires when opioids are ordered at discharge), and to implement randomization so that the precision prescribing intervention can be compared against the current standard of care.

### Active AER SOM Led Projects

→ **28**

### AER Project Consultations, since 2019

→ **222**

# Strengthening Community Partnerships

CTSI recognizes the immense wisdom and experience that community partners bring to research and is committed to **strengthening relationships between UCSF and community partners**. CTSI supports researchers in building mutually beneficial partnerships through infrastructure and capacity-building tools.

## Bringing Community into Research

In 2023, Debbie Madhok, MD, Associate Professor, Emergency Medicine, requested a letter of support from the **Community Engagement (CE)** program for a Department of Defense grant application to develop a measure assessing the risk of incomplete recovery following traumatic brain injury. In 2024, after securing funding, Dr. Madhok partnered with the CE Program to support the project's community engagement components. Since then, the CE Program has worked closely with Dr. Madhok to **integrate community perspectives** throughout the research process.

Recognizing that social and economic determinants significantly influence recovery outcomes, the CE Program helped Dr. Madhok identify a community consultant to support the project during its early phases and expanded engagement as project capacity grew. The project now includes a community advisory board that plays an integral role in the research and helps ensure the measure is **culturally appropriate and responsive** to the needs of diverse populations.

## Community Research and Action Meeting

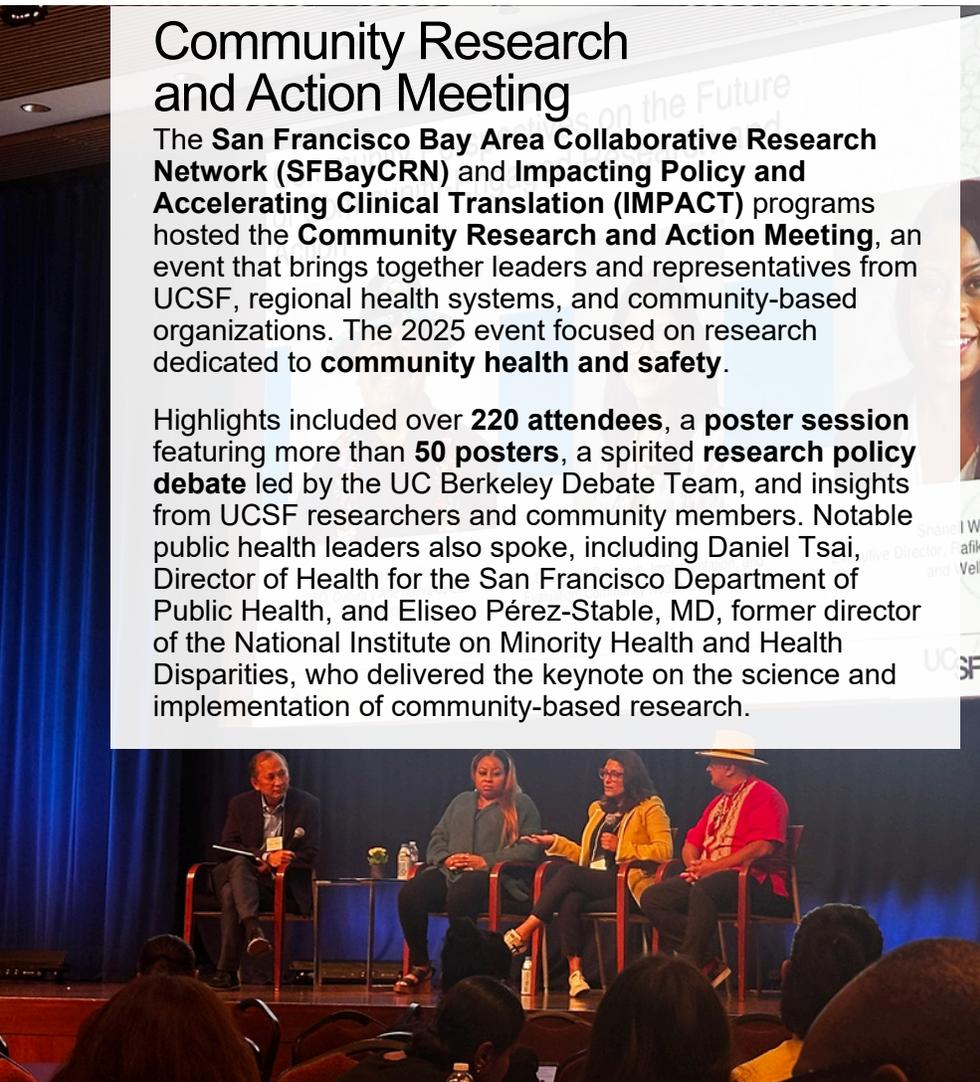
The **San Francisco Bay Area Collaborative Research Network (SFBayCRN)** and **Impacting Policy and Accelerating Clinical Translation (IMPACT)** programs hosted the **Community Research and Action Meeting**, an event that brings together leaders and representatives from UCSF, regional health systems, and community-based organizations. The 2025 event focused on research dedicated to **community health and safety**.

Highlights included over **220 attendees**, a **poster session** featuring more than **50 posters**, a spirited **research policy debate** led by the UC Berkeley Debate Team, and insights from UCSF researchers and community members. Notable public health leaders also spoke, including Daniel Tsai, Director of Health for the San Francisco Department of Public Health, and Eliseo Pérez-Stable, MD, former director of the National Institute on Minority Health and Health Disparities, who delivered the keynote on the science and implementation of community-based research.

## Community Advisory Board

Established in September 2024, the **CTSI Community Advisory Board (CAB)** strengthens academic-community partnerships by integrating community partner input into CTSI's **strategic decisions and research policies**. The CAB is comprised of 15 members that represent community organizations and clinics, youth research advisors, patients, caregivers, and former research staff.

In its first year, the CAB provided feedback on priorities for CTSI grant submissions and program activities, and CAB members **co-presented with CTSI staff at a national conference**.



# Training the Next Generation

CTSI's **Workforce Development** programs provide training for learners across the full spectrum of training levels and career pathways.

Undergraduates	Health Professional Students	Residents	Postdocs / Fellows			Faculty
Pre-health Undergraduate Program (PUP)	Yearlong Inquiry Program (YIP)	Resident Research Training Program (RRTP)	Clinical Research Informatics Postdoctoral Program (CRISP)	Fellows Advanced Skills Training in Clinical Research (FAST CaR)	K Grant Writer's Workshop (KGWW)	K Scholars Program

## Yearlong Inquiry Program (YIP)

This yearlong training program provides predoctoral students in the Schools of Dentistry, Medicine, Nursing, and Pharmacy with training in translational research. The program includes bi-weekly works-in-progress, mentoring, coursework, and faculty-led seminars.

Program outcomes have been strong: **72% of participants** who completed the program more than five years ago **currently hold academic positions**. These outcomes reflect the continued impact of CTSI's Workforce Development programs to grow the next generation of academic researchers

## Resident Research Training Program (RRTP)

Trains residents in clinical and translational research methods to support careers as independent investigators. The program includes didactic training, career development activities, coursework, funding opportunities for clinical research, travel support to present findings at scientific meetings, and an annual research symposium. From 2020 to 2025, more than **300 clinical residents** participated in the program.

## K Scholar Program

Supports the career development of early-stage faculty pursuing careers in clinical and translational research. The program offers career and skills development seminars, R-grant coaching, scientific writing support, and mentorship in career development and statistics. Since its launch in 2006, nearly 350 scholars have participated.

Program Result Highlights:

- **90%** of participants remain in science careers
- **10,000+** alumni publications
- **72%** of alumni are Associate Professors or Higher

## Staff Training Offerings

The **Clinical Research Staff Training Program** provides a **centralized curriculum** for research staff on research operations and administration, ensuring compliance with Good Clinical Practice and institutional research policies. Clinical research coordinators, protocol managers, department administrators, and other research staff are encouraged to participate.

Total staff training attendees

→ **820**

# Improving Research Operations

CTSI is dedicated to strengthening research operations and infrastructure across UCSF. Serving as an **institutional representative and advocate** for the clinical trials community, CTSI **identifies barriers and stewards solutions** to challenges that impact clinical trial operations.

## Excellence Campaign & Outcomes

The **Clinical Trial Operations (CTO)** unit leads the **Clinical Trial Excellence Campaign (CTEC)** at UCSF, which aims to scale proven operational improvements in the clinical trial activation process.

The campaign's goals include:

- **Shorten** activation times
- **Improve** communication and transparency
- Develop a culture of **shared responsibility**

As part of the campaign, CTO integrated data from the IRB, the Office of Clinical Trial Activation, and the Industry Contracts Division into a **centralized metrics and evaluation dashboard**. By providing a unified view of the activation lifecycle, the dashboard enhances transparency and helps identify opportunities for parallel processing to reduce overall study activation times at UCSF.



## Data Sharing Policy Guidance

The **Bioethics and Regulatory Engagement (BRE) program** collaborated with the AI Ethics & Policy and Research Privacy & Security teams to address patient data use in research, and related AI ethics considerations. This engagement provided essential input to support revisions to the draft UCSF Research Privacy Policy, reinforcing CTSI's role in shaping institutional policies that affect the research community.



# Impact Beyond UCSF

CTSI's impact extends beyond UCSF. Through engagement with policymakers, industry partners, University of California campuses, and the CTSA national consortium, CTSI shares the vital work and infrastructure supported by its programs.

## Spotlight: IMPACT Program

The **Impacting Policy by Accelerating Clinical Translation (IMPACT)** program provides faculty and staff with resources and training to support the adoption of evidence-informed policies across healthcare, government, and industry. When Shuvo Roy, PhD, Professor, Bioengineering, developed the first artificial kidney in animals, IMPACT's "Last Mile" funding supported travel and the development of professional presentation materials, enabling Dr. Roy to engage with patients, congressional staffers, advocates, biotech industry representatives, and representatives from the NIH and FDA.

These engagements included a high-level meeting with the Centers for Medicare & Medicaid Services (CMS). Through this ongoing collaboration, a CMS team is working with Dr. Roy to explore trial designs that address insurance eligibility and potential pathways for Medicare reimbursement—an important step toward translating this lifesaving innovation into standard clinical practice.

## Research Network: Profiles

Launched in 2009, Profiles is a **research networking and expertise-mining software tool** that showcases directory information for faculty and staff and maps connections across research communities. The **Informatics & Research Technology (IRT)** team hosts Profiles sites for **UCSF, UC San Diego, UCLA, UC Davis, UC Irvine, and USC**. With robust search capabilities, Profiles allows users to identify experts in biomedical research and is widely used by research teams, health systems, media, and the public.

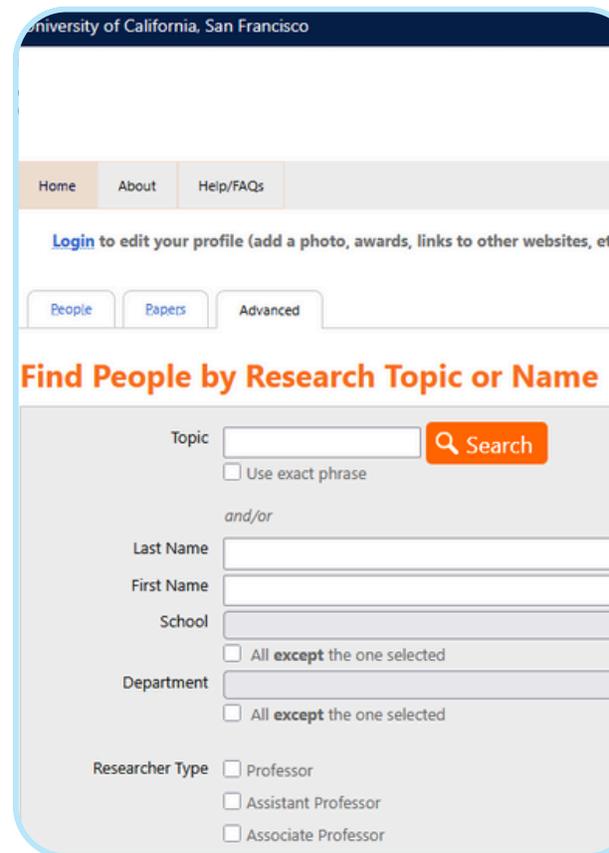
Recent improvements include:

- Integration with Advance CV to streamline data updates into UCSF Profiles
- Enhanced mentor section and search functionality

## Recruitment and Data Catalogue

The IRT team also develops and maintains Clinical Trials sites—**public, searchable catalogs of recruiting studies**—for UCSF ([clinicaltrials.ucsf.edu](http://clinicaltrials.ucsf.edu)), UC San Diego, UC Irvine, and UC Davis. The sites pull data from ClinicalTrials.gov to create **accessible, public-facing study pages**, allowing visitors to search for studies near them and express interest with just a few clicks.

This public site played a crucial role in the University of California Office of the President's 2025 launch of the [UC Clinical Trials dashboard](#). The dashboard supports a **greater understanding of the clinical trial portfolio** across the entire UC system with an interactive dive into studies by location or subject. Originally created to support recruitment, the Clinical Trials websites have become an important dataset used across the University of California.



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