

## **CTSA Program Webinar**

July 26, 2023







## **Agenda**

TIME	TOPIC	PRESENTERS
2:00 pm ET	Welcome	Lauren Fitzharris, MPH, PMP CCOS
2:01– 2:10 pm	NCATS/CTSA Program	Michael Kurilla, MD, PhD  Director, Division of Clinical Innovation
2:10 – 2:40 pm	Trial Innovation Network Update	Daniel Ford, MD MPH  Johns Hopkins University
2:40 – 2:55 pm	TL1 Visiting Scientist Working Group	Daniel Moglen, PhD UC Davis Health
2:55 – 3:00 pm	CCOS Updates	Kerry James, MPH PMP CCOS
3:00 pm ET	Adjourn	





## **NCATS/CTSA Program Updates**

Michael Kurilla, MD, PhD

Director, Division of Clinical Innovation NCATS

July 26, 2023



## **Appropriations - FY 2023**

- **Consolidated Appropriations Act, 2023** (P.L. 117-328)
  - ➤ Signed by President 12/29/22

\$ (in millions)	FY 2022	FY 2023		
NCATS	Enacted	Enacted	Difference	
Total	882.3	923.3	+41.0 (4.6%)	
CTSA	606.6	629.6	+23.0 (3.8%)	
Non-CTSA	275.7	293.8	+18.1 (6.6%)	

President's budget release March 28, 2023: **ZERO%** increase for NCATS



#### **Steering Committee Pod Discussions**

#### **Through July 2023:**

- N3C Team continues to meet with several SC pods to discuss resources needed at CTSA sites, the responsibility for the interpretation of findings, and to communicate where to find answers and get help
- One pod reviewed the SC meeting presentation of the previous SC Crowd Sourced topic of the Social Determinants of Health; purpose and use of the data generated discussion during the SC meeting
- Discussion about training program on AI and data science; recall there is informatics competencies training description previously developed: <a href="https://academic.oup.com/jamia/article/23/4/835/2201104">https://academic.oup.com/jamia/article/23/4/835/2201104</a>

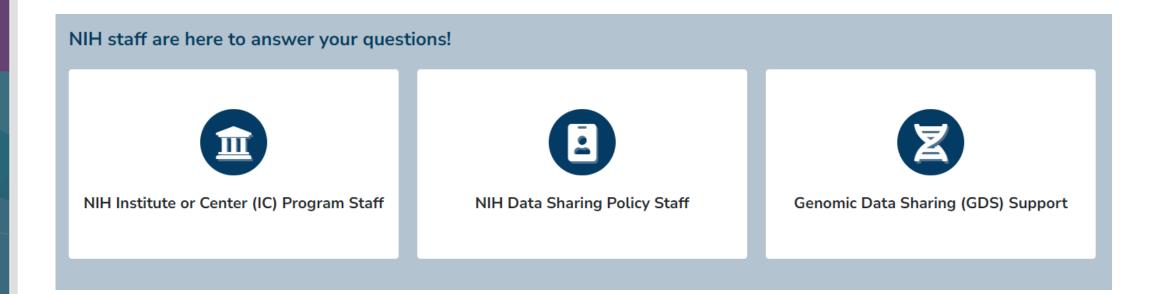


#### **NIH Notices**

- Extramural Loan Repayment Program for Clinical Researchers (LRP-CR) (NOT-OD-23-142)
- Extramural Loan Repayment Program for Pediatric Research (LRP-PR) (NOT-OD-23-143)
- Extramural Loan Repayment Program for Health Disparities Research (LRP-HDR) (NOT-OD-23-144)
- Extramural Loan Repayment Program for Research in Emerging Areas Critical to Human Health (LRP-REACH) (NOT-OD-23-145)
- Extramural Clinical Research Loan Repayment Program for Individuals from Disadvantaged Backgrounds (LRP-IDB) (NOT-OD-23-146)
- Extramural Loan Repayment Program for Contraception and Infertility Research (LRP-CIR) (NOT-OD-23-147)



## NIH Data Management and Sharing Policy Reminder





- Contact our central mailbox for questions about NIH Sharing Policies including the new Data Management and Sharing Policy.
- sharing@nih.gov



## Notice of Change to PAR-21-293 Clinical and Translational Science Award (UM1 Clinical Trial Optional) in Award Information

NOT-TR-22-033 (FY24 Awards)

	Size Eligibility Budget Tiers for FOA Applicants (FOA receipt dates January 13, 2023, May 12, 2023, September 15, 2023)	Maximum Direct Cost Budget Requests for UM1
Hub Tier	5-year average of the most current NIH Direct Cost (DC) Funding of the applicant institution, <u>PLUS</u> 5-year average of the most current NIH Direct Cost (DC) funding of any partner(s)*  (based on FY2017-FY2021 NIH Fund data)	UM1
А	>\$320,000,000	\$6,500,000
С	\$235,000,000 - \$320,000,000	\$5,000,000
T	\$145,000,000 - \$234,999,999	\$3,600,000
G	<\$145,000,000	\$2,600,000

NOT-TR-23-022 (FY25 Awards)

	Size Eligibility Budget Tiers for FOA  Applicants (FOA receipt dates January 12, 2024, May  17, 2024, September 13, 2024)	Maximum Direct Cost Budget Requests for UM1
Hub Tier	5-year average of the most current NIH Direct Cost (DC) Funding of the applicant institution, <u>PLUS</u> 5-year average of the most current NIH Direct Cost (DC) funding of any partner(s)*  (based on FY2018-FY2022 NIH Fund data)	UM1
А	>\$340,000,000	\$6,500,000
С	\$250,000,000 - \$339,999,999	\$5,000,000
T	\$155,000,000 - \$249,999,999	\$3,600,000
G	<\$155,000,0000	\$2,600,000

### CTSA Program Research Supplements to Promote Diversity, Re-entry and Re-integration

#### **NEW RECEIPT DATE: SEPTEMBER 15, 2023**

- CTSA Program-Specific Guidance for Diversity, Re-entry and Reintegration Research Supplements: <a href="https://ncats.nih.gov/ctsa/funding/diversity-reentry-reintegration">https://ncats.nih.gov/ctsa/funding/diversity-reentry-reintegration</a>
  - Please ensure that packages are complete by adhering to this guidance
- Prospective applicants and their mentors are strongly encouraged to contact
  their respective NCATS program officer and/or the scientific contact listed
  below during the initial preparation of a supplement application and prior to
  its submission to discuss the goals and objectives of the supplement application.
  - Scientific Contact: Andrew Louden, Ph.D. @ andrew.louden@nih.gov
  - Grants Management Contact: Leslie Le @ <a href="mailto:leslie@mail.nih.gov">leleslie@mail.nih.gov</a>



# Publications Resulting from the National Academies of Sciences, Engineering, and Medicine's Forum on Drug Discovery, Development, and Translation

- A framework for assessing clinical trial site readiness
  - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10346039/
- Site readiness practices for clinical trials considerations for CTSA hubs
  - https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10346077/



# Preparing the Future Workforce in Drug Research & Development - A Workshop



- Public workshop to consider next generation drug R&D workforce needs
- October 16-17, 2023
- Sponsored by: <u>Forum on Drug Discovery</u>, <u>Development</u>, <u>and Translation</u>
- Register online or in-person here: <u>Preparing the Future Workforce in Drug Research & Development A</u>
   <u>Workshop | National Academies</u>



## CTSA Program Research Shared by NCATS







**Scientific Publications\*: 416** 

**Grantee News Releases**\*\*: 60

**Social Media Engagements\*\*\*: 246** 

#### Want your research promoted?

#### Contact us!

Share your CTSA Program-supported news releases and scientific publications with Sanae ElShourbagy (elshourbagysy@mail.nih.gov)

#### **Mention the CTSA Program and/or NCATS**

Cite the CTSA Program or NCATS by name in news releases and scientific publications (in addition to the grant number)

Tag NCATS and use the #CTSAProgram in your social media posts

#### **Promotion Snapshot: April-June 2023**

\* source: https://ncats.nih.gov/pubs/science

\*\* source: https://ncats.nih.gov/news/grantees

\*\*\* social media engagements include retweets, quote tweets, shares and likes





## **NCATS 2024 Strategic Plan**

Current NCATS Strategic Plan (Fall 2016): <a href="https://ncats.nih.gov/strategicplan">https://ncats.nih.gov/strategicplan</a>

If you have feedback for the NCATS 2024 strategic plan, please send comments to:

NCATS2024StrategicPlan@nih.gov



## **Upcoming Dates to Remember**

#### **Next CTSA Program Webinar**

AUGUST MEETING CANCELLED
September 27, 2023; 2-3 PM ET. Register here.

**NEW REGISTRATION FROM CCOS!!** 



# NGATS

COLLABORATE. INNOVATE. ACCELERATE.











## Trial Innovation Network (TIN) Update for the CTSA Program July 26, 2023

Daniel Ford, MD, MPH Johns Hopkins for the TIN Team





## Objectives for Presentation

- Review Goals and Progress of the Trial Innovation Network
- Highlight innovations championed by the TIN
- Encourage TIN submissions from CTSA Hub local investigators





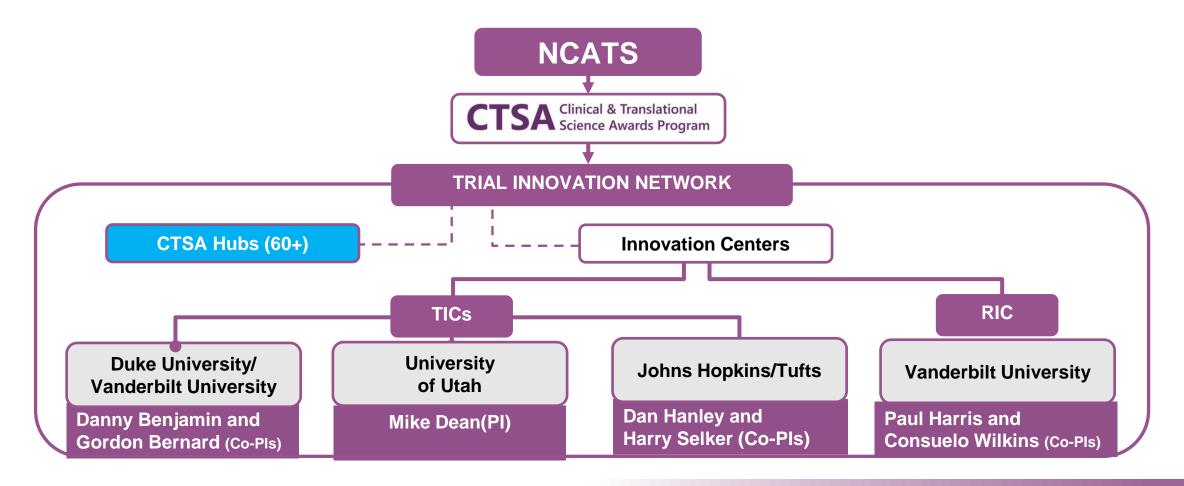
## Goals of the Trial Innovation Network (TIN)

- Focus on operational innovation, excellence and collaboration and leverages
  the expertise and resources of the 60+ hubs of the CTSA Program and 30+
  affiliates.
- The TIN employs a single IRB system, master contracting agreements, quality by design approaches, and development and utilization of evidence-based strategies for recruitment and patient engagement.
- The TIN pursues better, faster, and more cost-efficient trial execution
- The TIN will be a national laboratory to facilitate evidence-based innovations related to the process of conducting clinical trials.





## Trial Innovation Network Structure (2016-2023)







## Networking- Hub Liaison Teams

Who we are and What we do

#### **Stanford University**

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#### PRINCIPAL INVESTIGATOR



Ruth M O'Hara roh@stanford.edu

#### MEDICAL DIRECTOR



Ken Mahaffey Point of Contact kmahaf@stanford.edu

#### **LIAISON TEAM STAFF**



Maya Berdichesky Point of Contact mayab2@stanford.edu



Katherine Connors Community Engagement Specialist kconnors@stanford.edu



Ellen O'Conor IRB Contact ellen.oconor@stanford.edu

#### TRIAL INNOVATION NETWORK AGREEMENTS



SMART IRB Authorization Agreement



IRB Reliance Exchange (IREx) Portal Agreement



FDP-CTSA Standard Agreement

#### TRIAL INNOVATION NETWORK CONTRACTS



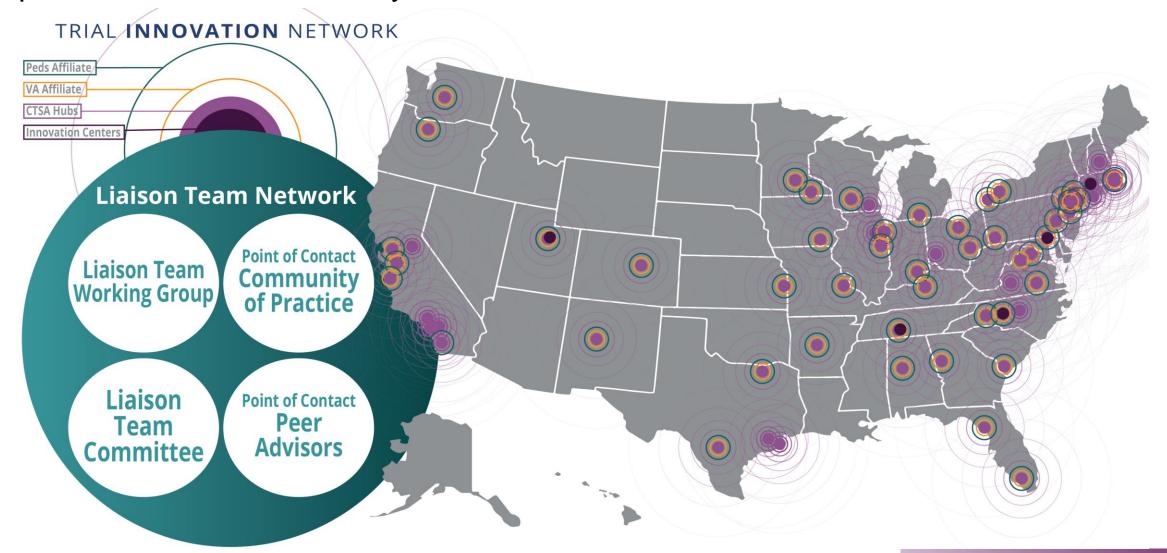
Confidential Disclosure Agreement (CDA) Michiko Pane (signatory) michiko@stanford.edu (650) 723-2610

## Trial Innovation Network Hub Liaison Teams:

- 67 CTSA Institutions with TIN HLTs
- 114 Point-of-Contact
- ~750 Individual Network HLT Members

## Networking

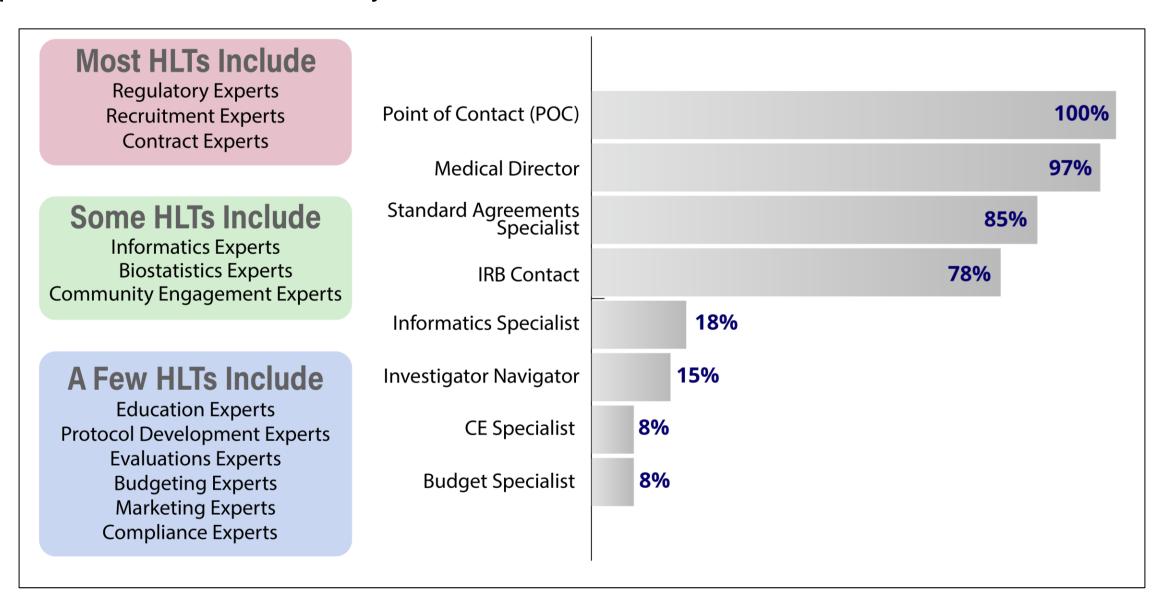
Expansive reach and diversity of HLT members





## Networking

#### Expansive reach and diversity of HLT members



## Reporting of the TIN efforts over the last 7 years

#### **NETWORK PROPOSALS**

401

REQUESTED NETWORK SUPPORT

76

THERAPUETIC AREAS REPRESENTED 62 (94%)

NUMBER (%) OF CTSA SUBMITTED PROPOSALS

NUMBER OF NON-CTSA SUBMITTED PROPOSALS

31

NHLBI

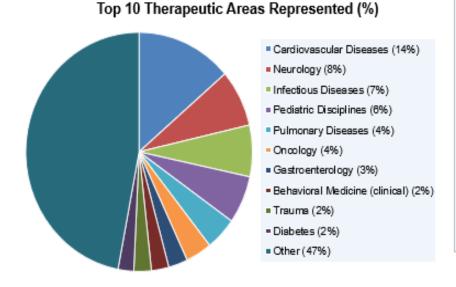
20

NIH I/Cs

ENGAGED

- NINDS NIDDK
- NCATS
- NICHD
- NIA
- NCI
- NIAMS
- NIAID NIDCD
- NEI
- NIAAA
- NIMH
- NIDA NIDCR
- NIBIB
- NCCIH
- NINR
- NIMHD

#### NHGRI



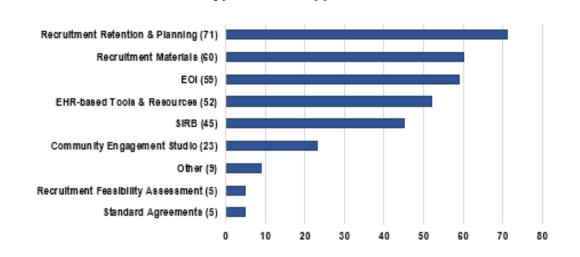
#### NETWORK SUPPORT



83 COMPREHENSIVE CONSULTATIONS

37 FUNDED TRIALS

Types of TIN Support







### **Dissemination** – Presentations, Newsletters, Publications

- > TIN Collaboration Webinars -100 held to date
- > Open Forum Presentations- 64 held to date
- > Network Liaison Team Meetings- 66 held to date
- > RIC Community of Practice **200 members**
- > TIN Newsletter 756 subscribers with 56 distributed
- > RIC Download 248 subscribers with 126 distributed
- > TIN Toolbox-88 resources available















## How the TIN supports Multicenter Clinical Studies

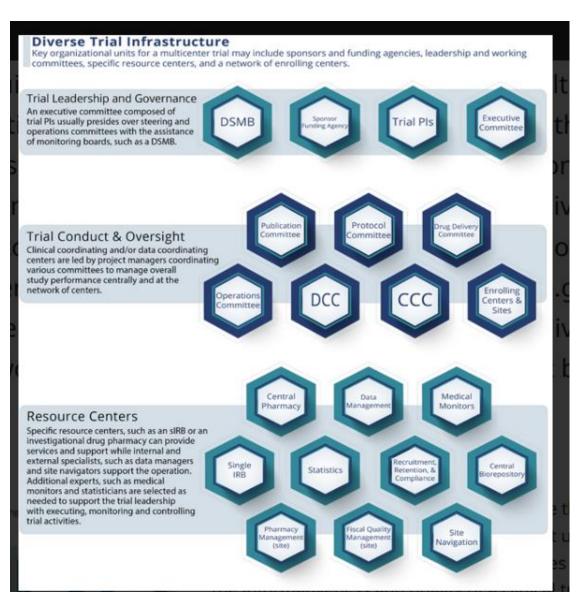




# TIN's Top Principles to Enhance the Informativeness and Quality of Clinical Trials

#### **Principle 1: Assemble Multidisciplinary Team**

- Build a network of
  - resource centers,
  - common treatment and data collection protocols,
  - coordinating center to receive and process study data
  - funding agency officers,
  - internal and external committees,
  - vendors (e.g., central biorepositories, drug suppliers, and central pharmacies)



# TIN's Top Principles to Enhance the Informativeness and Quality of Clinical Trials

## **Principle 2: Leverage Existing Processes and Systems**

- conducted 83 comprehensive consultations for investigative teams of varying experience, including 32 firsttime multicenter investigators.
- used the lessons learned from these consultations to develop training events and materials that address the needs of multicenter investigators.
- partners with investigators who receive funding to implement multicenter trials.



# TIN's Top Principles to Enhance the Informativeness and Quality of Clinical Trials

Principle 3: Develop study budget with potential contracts early in process

Costliest factors across all trial stages borne by Coordinating centers:

- clinical procedure (patient care) costs (15%-22%),
- retention costs at enrolling centers (9%-16%),
- operational staff costs (11%-29%),
- quality assurance (QA) monitoring costs (9%-14%),
- core laboratory costs (4%-12%) borne by coordinating centers





# Top 4 recruitment and retention recommendations from the RIC

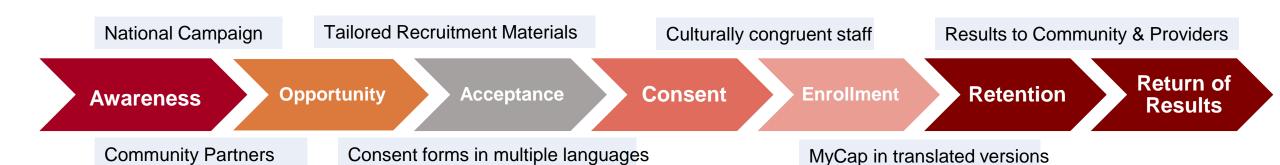
- Proactively assess R&R barriers and develop mitigation strategies
- Prioritize participants experienceminimize burden and returning value
- Data driven site selection
- Engage stakeholders at every step





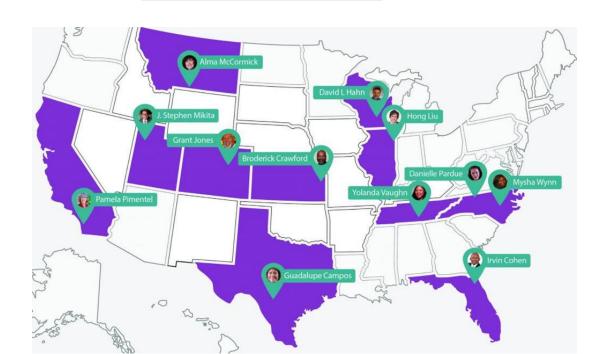
## Recruitment

#### **Recruitment Continuum with a Community Focus**

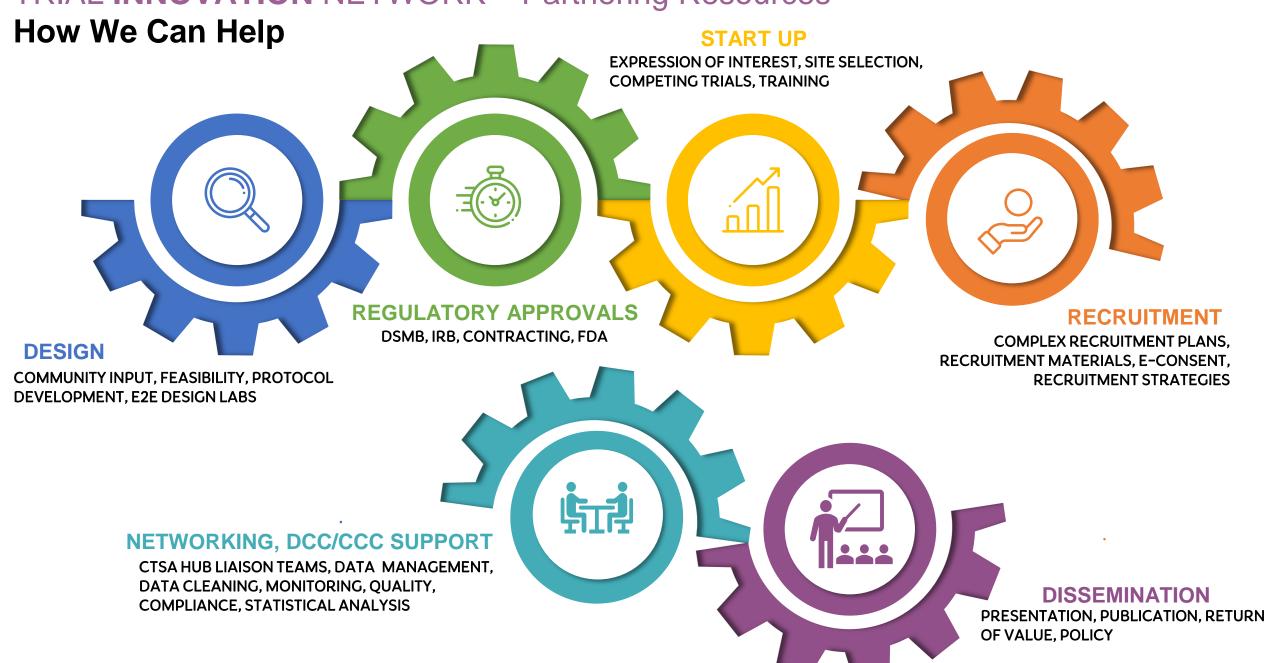


RIC Community Advisory Board (CAB) Comprised of 14 members who represent various urban and rural geographical regions across the U.S. This group informs the activities and resource development of the RIC.





#### TRIAL INNOVATION NETWORK – Partnering Resources



## Design - Addressing Protocol Complexities

#### Through Consultation for Operational Innovation and Excellence

Advise PIs on choice of RFAs and ICs

Quality by Design methodology

Statistical Design consults: Bayesian Adaptive, Cluster Stepped Wedge, Adaptive

Sampling schemas and protocol outcomes

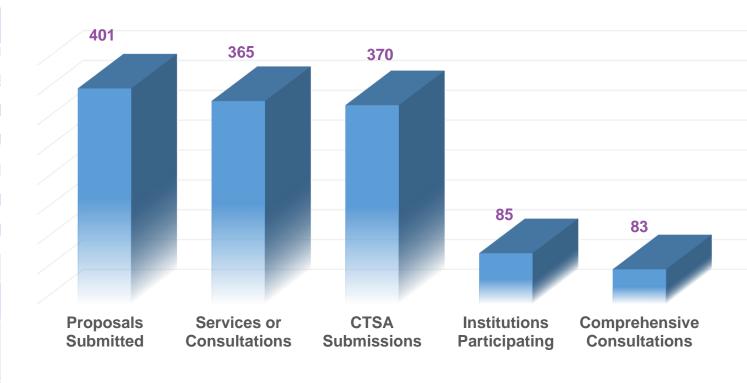
Synchronized review of multiple studies by a single DSMB

Master Protocol designs

**Budgetary impact** 

Protocol redesign for grant resubmission

E2E and EE2 design labs for novel methodology







## Regulatory Approvals- SIRB & Contracting

## Created a framework for local workflows when using a SIRB



#### **Standard Agreements**

- FDP-CTSA Standard Agreement
- Non-Interventional FDP-CTSA
- Network Umbrella Confidential Disclosure Agreement (CDA)
- Veteran's Administration (VA) Confidential Disclosure Agreement (CDA)
- Accelerated Research Agreements

63/65 CTSA sites have registered to use the agreement + 10 affiliates

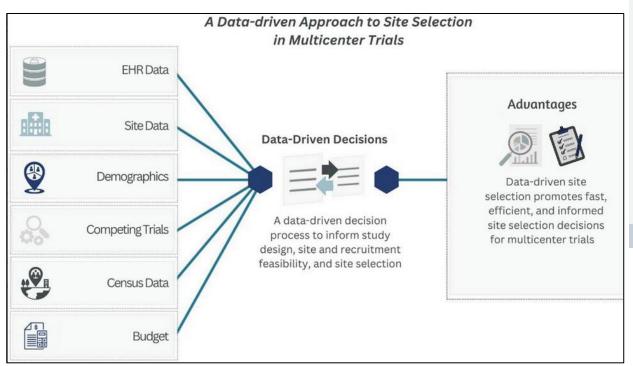


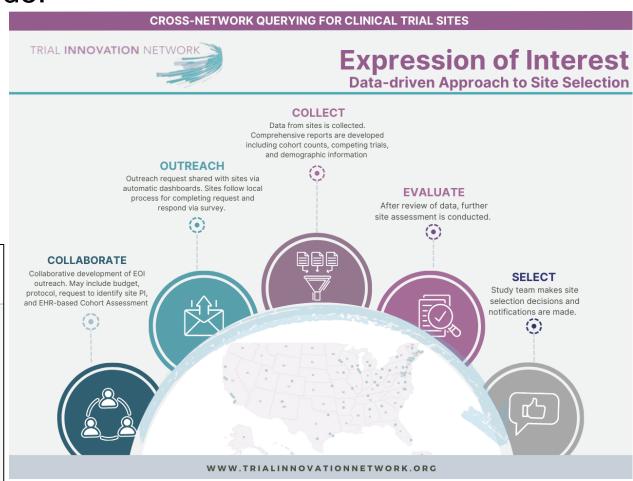
In  $\frac{1}{2}$  of the TIN studies using the FDP-CTSA almost 40% of the sites were able to sign the contract in less than 30 days.

## Start Up - Site identification (EOI) and selection

#### The Expression of Interest (EOI) can include:

- EHR-based cohort assessment
- Site PI identification
- Protocol review/feasibility
- Budget review/feasibility





## Networking – DCC/CCC

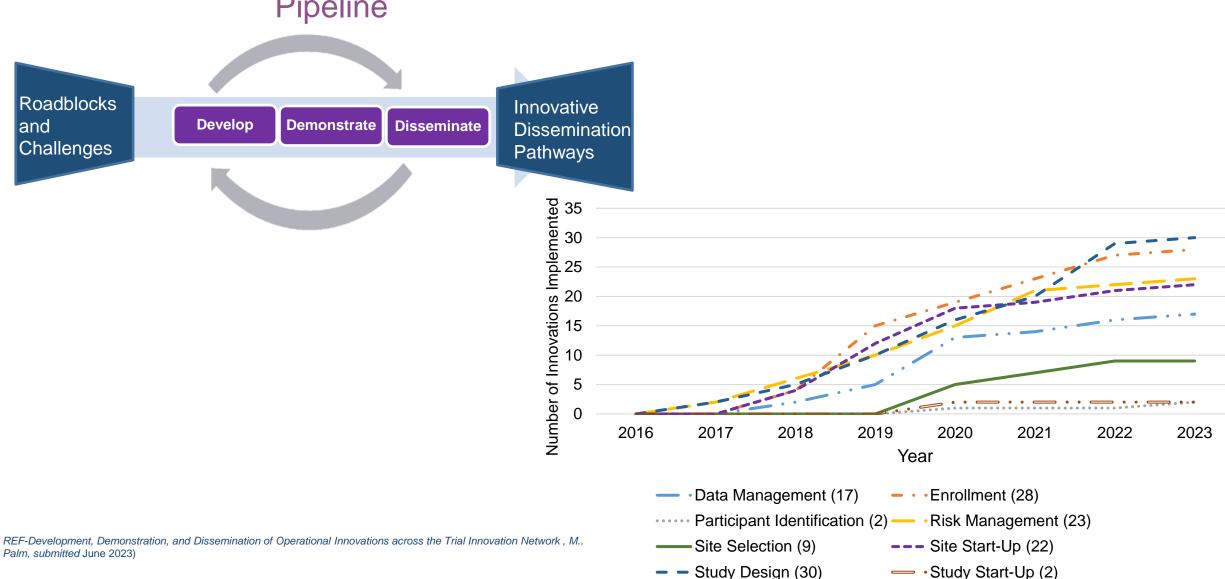
#### **Support Services**

- √ Site Coordination
- ✓ Data Cleaning
- ✓ Statistical Analysis
- ✓ Data Management
- ✓ Monitoring
- √ Compliance/Quality



#### **TIN Innovation Demonstration**

#### **Innovation Development Pipeline**

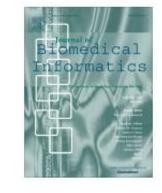


Palm, submitted June 2023)

## **Publications**











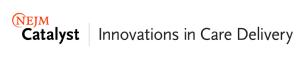
MEDICAL CARE















**Health Affairs** 







## Recent Notable Publications



### (listed on the TIN website)

Approaches for Enhancing the Informativeness and Quality of Clinical Trials: Innovations and Principles for Implementing Multicenter Trials from the Trial Innovation Network

JCTS (May, 2023)

Open in PubMed

A collaborative, academic approach to optimizing the national clinical research infrastructure: The first year of the Trial Innovation Network

\*\*Denin PubMed\*\*

\*\*Open in PubMed\*\*

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Challenges and lessons learned for institutional review board procedures during the COVID-19 pandemic

JCTS (April, 2023)

Open in PubMed

Implementing a Central IRB Model in a Multicenter Research Network

Ethics and Human Research (April, 2023)

Open in PubMed

Assessing clinical site readiness for EHR-to-EDC automated data collection

Contemporary Clinical Trials (May, 2023)

Open in PubMed

Using gamification to enhance clinical trial start-up activities

JCTS (April, 2023)

Open in PubMed

The Recruitment Innovation Center: Developing Novel, Person-centered Strategies for Clinical Trial Recruitment and Retention

J Clin Transl Sci (August, 2021)

Open in PubMed

## Recent Notable Publications

TRIAL INNOVATION NETWORK

(coming soon)

Manuscript Title	Journal	Status
Decentralized Clinical Trials in the Trial Innovation Network: Importance, Challenges, Strategies, and Lessons Learned	JCTS	ACCEPTED with minor revisions
The RIC Recruitment & Retention Materials Toolkit A resource for developing community-informed study materials	JCTS	SUBMITTED on 6/6/2023
Quantitative Assessment of the Impact of Standard Agreement Templates on Multisite Clinical Trial Start Up Time	JCTS	SUBMITTED on 6/14/2023
Establishing a broad clinical research network: experiences and lessons learned from the NCATS Trial Innovation Network (2023)	JAMA Open	<b>SUBMITTED</b> on 6/27/2023
The Trial Innovation Network Liaison Team: Building a National Clinical and Translational Community of Practice	JCTS	<b>SUBMITTED</b> on 7/03/2023
Development, Demonstration, and Dissemination of Operational Innovations across the Trial Innovation Network	JCTS	<b>SUBMITTED</b> on 7/18/2023





### TRIAL INNOVATION NETWORK -CTSA Readily available (self-service) Resources

### **How We Can Help**

**TIN Toolkits, Online Products or Resources** 

Trial Innovation Network
Toolboxes

View All TIN Resources

Guidelines for Culturally Tailored Research Recruitment Materials

Learn More

Most Popular (previous 30 days)

Referring Providers: An Outreach
Guide

Learn More

SHARE YOUR
RESOURCE

Search by Contributor:

Recruitment Innovation
Center (RIC)

Trial Innovation Centers (TICs)

All Institutions

BEST PRACTICES FOR CONDUCTING TRIALS DURING THE COVID-19 PANDEMIC
Clinical Trials Transformation Initiative

CTTI RECRUITMENT RECOMMENDATIONS

Clinical Trials Transformation Initiative

ENGAGING RACIAL AND ETHNIC MINORITY PATIENT POPULATIONS IN COVID-19 CLINICAL TRIALS
Clinical Trials Transformation Initiative

DUKE UNIVERSITY ENGAGEMENT, RECRUITMENT, AND RETENTION PROGRAM IMPLEMENTATION PLAN AND REPOSITORY OF MATERIALS

Duke University

FREE NIH-FUNDED RESOURCES FOR COHORT RETENTION, PATIENT OUTCOMES ASSESSMENT & STATISTICAL ANALYSIS





# TIN as a Resource for your next multicenter study trialinnovationnetwork.org







# Thank you-TIN (2016-2023)

Harris



& Translational Awards Program

## The TIN Expansion

CTSA Clinical & Translational Science Awards Program



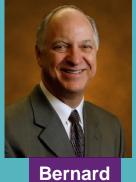
VANDERBILT UNIVERSITY MEDICAL CENTER





Self

















Lane





University of Pittsburgh





















Regenstrief















Rockefeller

**#**ŲŢHealth

Houston

University 3











# The TL1 Visiting Scientist WG

(The William Schnaper Visiting Scientist Program)

Presented by Daniel Moglen, PhD UC Davis Health

### Goals and Expectations

### Goals:

- To provide TL1s with professional development opportunities across the CSTAs
- -Support cohesion and networking across institutions
- Expectations:
  - Become aware, curious, and interested in the Schnaper program offerings
  - Share the information with your colleagues, trainees, and relevant stakeholders



### Update

- The working group will transition into an ongoing TL1 activity
- Institutionalizing this program will allow for more efficiencies and predictability moving forward.



### Program Elements - Mini-Symposium

- Geared toward newer TL1s
- Great opportunity to participate in a cross-campus professional development opportunity
- TL1s submit a proposal and prepare a 8 minute talk on a particular theme
- Sessions are moderated and awards are given out
- TL1s practice giving a presentation



### Program Elements - Mini-Symposium

- Mini-Symposium on April 25<sup>th</sup>, 2023
  - Theme: Innovations in Health
- Mini-Symposium on December 13, 2022
  - Theme: Circumventing Road Blocks in Clinical and Translational Science



### Program Elements - Mini-Symposium

- Opportunity for Ts to deliver a platform presentation in a national CTSA consortium wide forum
- Opportunity for Ts to serve as moderators in a national
   CTSA consortium wide forum
- Opportunity for Ts to serve as judges in a national CTSA consortium wide forum.



### Program Elements - Debate

- Small groups (4-5 people) from 2 different CSTA hubs
- Each group given pro or con on a particular topic
- Invited expert judges
- For early TL1s
- Promotes teamwork, argumentation skills, and thinking on the spot



### Program Elements - Debate

- November 29, 2022
  - -Can we trust medical guidelines?
  - -Expert Judge: Dr. David F. Ransohoff
  - -Debate Teams: Georgetown University, Penn State, Washington University in St. Louis



## Program Elements - Debate

Engaging Discussion

Diverse Panel of Experts

Innovative Solutions



Tuesday, November 9, 2021 11 am - 12 pm CT, on Zoom

Please join us for the Inaugural TL1 Debate hosted by the TL1 Visiting Scientist Working Group

**REGISTER** 



# Inaugural TL1 Debate 'Statin Wars'

#### **Moderator:**

Steven Nissen, MD
Chief Academic Officer
Sydell and Arnold Miller Family Heart,
Vascular & Thoracic Institute
Cleveland Clinic

Debate Teams: University of Michigan Washington University in St. Louis



₩ Washington University in St. Louis





### Program Elements - Grand Rounds

- For advanced TL1s who have substantial data to present acts as a practice job talk
- A TL1 and a host institution are matched for a virtual day visit
- 45 minute presentation followed by Q&A
- Three 1 on 1 meetings with faculty members
- Networking mixer with TL1s



### Program Elements - Grand Rounds

- Networking and Connections
- Benefits of Professional Development
- Effective Organization and Communication



## Program Elements - Grand Rounds

Name	Home University	Host University/Date	
Stacey Aaron	UNIVERSITY OF KANSAS MEDICAL CENTER	Wake Forest – 2/15/23	
Daisy Diaz Roh	ena UNIVERSITY OF TEXAS HEALTH SCIENCES CENTER HOUSTON	Ohio State University Center for Clinical and Translational Science	
Laura Beth Kalv	vas OHIO STATE UNIVERSITY	Yale	
Bridgitte Palaci	ios UNIVERSITY OF TEXAS HEALTH SCIENCES CENTER HOUSTON	TBD	
Aarti Bhat	PENNSYLVANIA STATE UNIV HERSHEY MED CTR	UNC Chapel Hill	
Lisa Emerson	UNIVERSITY OF FLORIDA	UNC Chapel Hill	
Audrey Kelema	an WASHINGTON UNIVERSITY IN ST. LOUIS	UC Davis Health – 3/23/23	
Chelsea Duppe	univ of North Carolina Chapel Hill	WashU - 4/3/23	
Jacob Feldman	VANDERBILT UNIVERSITY MEDICAL CENTER	Pitt	



### Thank you

- Thank you to the hardworking committee, none of this would be possible without all of you
- Thank you to the TL1 directors
- Thank you to CLIC and all of their administrative/structural support
- Thank you to Dr. William Schnaper



### Thank you

Contact information: <a href="mailto:djmoglen@ucdavis.edu">djmoglen@ucdavis.edu</a>

- Please put your email address in the chat or reach out to the email address above to get involved
- Action items: Convene our working group for the 2023-2024 academic year, set dates for the debate and minisymposium





# **CCOS Updates**

July 26, 2023









### Working Group (WG) Proposals: Cycle X

11 working group proposals were submitted and reviewed by the Steering Committee

5 proposals were approved:

**Engaging Individuals with Disability in the Research Process** 

21 CFR Part 11 Compliance for REDCap

Translational Science Competency-Based Assessment (TS-CBA)

**TL1 Visiting Scientist** 

Advancing Dissemination and Implementation Science Working Group: Advancing Equity-focused Dissemination & Implementation Sciences in clinical research, clinical practice, and communities

Thank you to all who submitted proposals and congratulations to the new working groups!

CCOS has reached out to the chairs of the groups to schedule initial meetings and introduce their new CCOS Coordinator.

Cycle XI opens on September 1! More details to follow.





### 2023 Fall CTSA Program Annual Meeting

Leveraging Real World Data and AI to Advance Translation

 Registration: Registration is open! <u>Click</u> here for more information

• **Date:** November 6-8, 2023

Location: Double Tree (Crystal City)

Washington, DC

### **Schedule Overview**

#### Day 1

CTSA Administrators (morning)

Steering Committee Meeting (afternoon)

### Day 2

CTSA Program
Meeting
Full day

### Day 3

CTSA Program
Meeting
Morning only



Keynote Speaker: Dr. Renee Wegrzyn, Director, ARPA-H

Dr. Renee Wegrzyn was appointed as the first director of Advanced Research Projects Agency for Health (ARPA-H) by President Joseph R. Biden in 2022. She completed her postdoctoral training as an Alexander von Humboldt Fellow in Germany and has extensive experience in biosecurity, gene therapies, emerging infectious disease.

### **Important Dates**

October 15<sup>th</sup>

Registration for Fall Program Meeting closes

November 6 - 8<sup>th</sup>

Fall Program Meeting

# Thank you!

## Reminders

August 2023 Webinar is Canceled

Next CTSA Webinar is Wednesday, September 27 at 2pm ET

New Webinar Registration Link:

https://zoom.us/webinar/register/WN\_qy2vYoxnSdGzbhABVjQFzQ

