

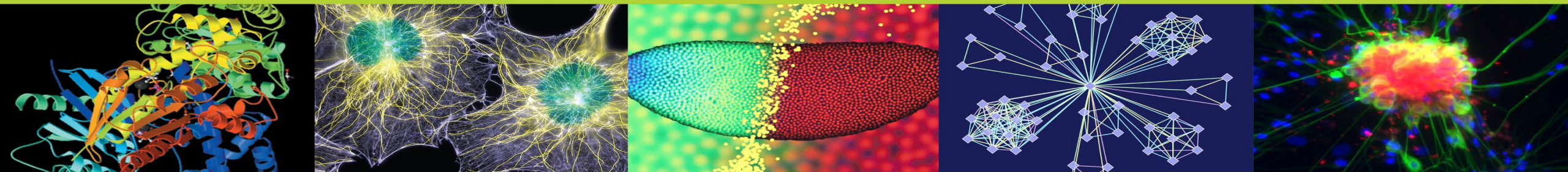
NOT-GM-23-035

Advancing the use of EHR for Research (U54 Administrative Supplements)

March 21, 2023

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Division for Research Capacity Building



Participating NIGMS Staff

- **Dr. Ming Lei**, Director, Division for Research Capacity Building
- **Dr. Michele McGuirl**, Chief, Research Advancement Programs Branch
- **Ms. Christy Leake**, Team Leader, Grants Administration Branch

Q&A via Chat window, moderated by Ming Lei

This webinar is being recorded and will be available on the CTR Programs website in 1-2 weeks

Outline of Today's Webinar

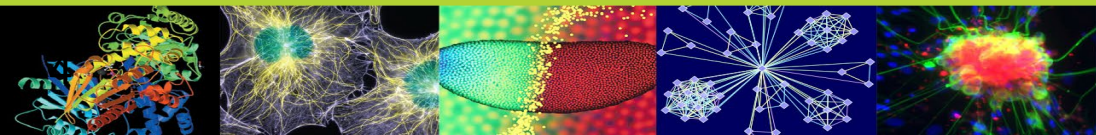
- Purpose
- Research Plan
- Project Areas
- Eligibility
- Budget
- Application Process and Tips

Purpose

Challenges in using EHR for research

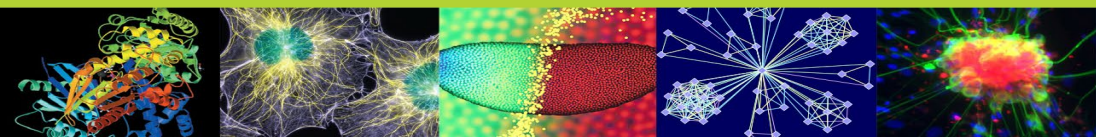
- Not all CTR healthcare affiliates have EHR that is formatted for easy sharing with patients via the Fast Healthcare Interoperability Resources, FHIR® standard, or for research use
- EHR datasets for research still need to be cleaned and harmonized
- Network partners within a CTR may use different Common Data Models (CDMs)
- There is a broad spectrum of FHIR awareness and use across CTRs

NOSI Purpose: To strengthen EHR-related research infrastructure and explore ways of using the FHIR standard to capture, integrate, and exchange clinical data for research, with the goal of facilitating future clinical trials and observational studies



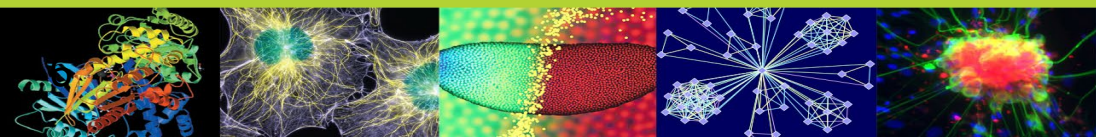
The Research Plan

- **Project Summary (1 page):** briefly describe the proposed activities, how they will collectively contribute to increased use of EHR for research, and how they align with the goals of the parent grant
- **Specific Aims (1 page):** describe all projects/ activities that will be pursued
- **Research Strategy (6 pages):** Covers all projects in one or more areas below
 - Adoption of FHIR-Compliant Software
 - Harmonizing EHR Data to a Single CDM
 - Preparing to Use the FHIR Standard



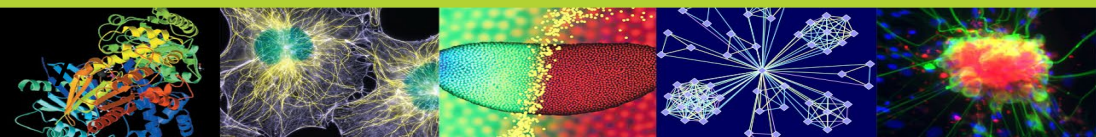
Adoption of FHIR-Compliant Software

- To encourage PBRNs to use FHIR-compliant software to enable future EHR data sharing, and provide an incentive for PBRNs to engage with CTRs
- Research Plan should include:
 - # of sites and patients
 - Timeline for selecting and installing software
 - Implementation strategy to standardize terminology and coding, minimize future harmonization and data cleaning, etc.



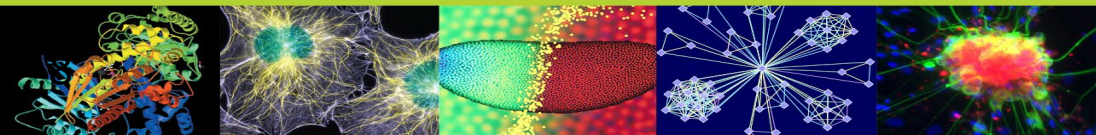
Harmonizing EHR Data to a Single CDM

- To encourage CTR network partners to use one CDM to minimize data cleaning and harmonization and streamline EHR-based research
- Research Plan should include:
 - Justification of the selected CDM
 - Description of current workflow(s) to combine data from different partners
 - Description of compute needs for creating crosswalks, converting and harmonizing datasets, and testing interoperability



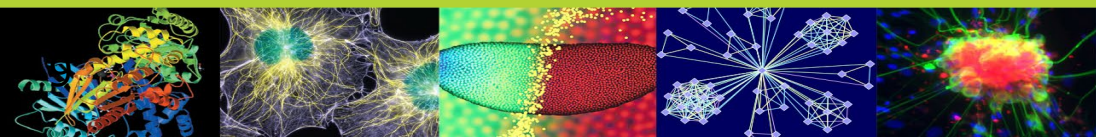
Preparing to Use the FHIR Standard

- To explore use of the FHIR standard to capture, integrate, and exchange clinical data for research, to facilitate future clinical trials
- Potential Projects:
 - Mapping the IDeA-CTR's selected CDM to the FHIR resources
 - Establishing FHIR servers/APIs for clinical data exchange
 - Integrating and interfacing REDCap with FHIR
 - Developing SMART on FHIR user-facing apps that connect to EHR and health portals



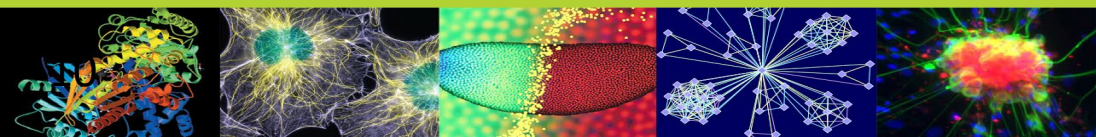
FHIR Research Plans

- Research Plan should include:
 - How EHR is currently obtained, managed, and accessed, including the process for obtaining consent, deidentification, and IRB approval
 - Proposed areas to test whether FHIR provides an advantage over current practices and ways to validate the potential benefits
 - Use of public resources is encouraged
 - For each SMART on FHIR app, describe the research purpose and design features



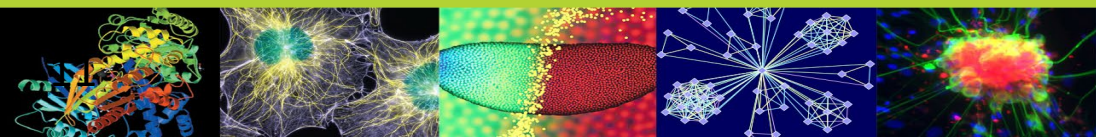
Eligibility

- Each IDeA-CTRs that is not in an NCE is eligible to submit one application
- IDeA-CTR PD/PIs are not eligible to lead projects or receive research funding
- Activities are expected to involve a single CTR



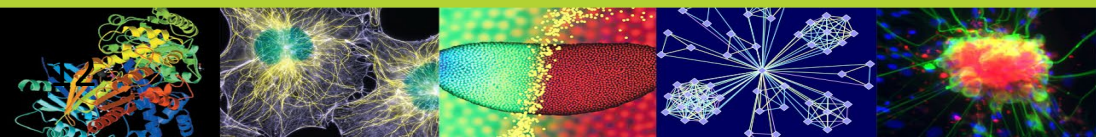
Budget

- Requests may be for one year of support only
- Budget must reflect the costs of the proposed activities
 - Cannot exceed the annual parent grant budget
 - Funds for administration costs may be requested with appropriate justification
- Budget Justification should break down costs by each project proposed
 - Include a statement regarding the unobligated balance
- Awards may be paid with new funds, unobligated balance, or both



Application Process and Tips

- Applications must be submitted to [PA-20-272](#) and must include NOT-GM-23-035 in box 4B
- Due date: May 15, 2023
- Begin the process now for IRB approvals, if needed – must have this before a supplement award can be issued



Q&A Panel

Thank you!

Please enter your questions into the chat box

