



Institute for Clinical and
Translational Research
AT EINSTEIN AND MONTEFIORE

Health Informatics

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Montefiore

Objectives

- Accelerate and support the entire spectrum of CTR and other ICTR modules with **comprehensive informatics and data science resources, services, and training**
 - Democratized and enhanced availability of high quality, analysis ready, multi-modal datasets
 - Research Informatics and data science services and support infrastructure
 - Enhance and scale clinical trials recruitment
 - Promote and provide training and educational opportunities for health informatics and research informatics
- Accelerate **translation of research findings into clinical practice** and research integration to support learning health system
- Participate in and provide opportunities for Open Science collaborations



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PharmD, MPH
Co-Director, Interim



Erin Henninger
MPH
Co-Director, Interim



Boudewijn Aasman
MS
Data Science



David Lounsbury
PhD
Network Research



Jeannette Lindquist
MBA
Administrator

Responses to EAC Recommendations

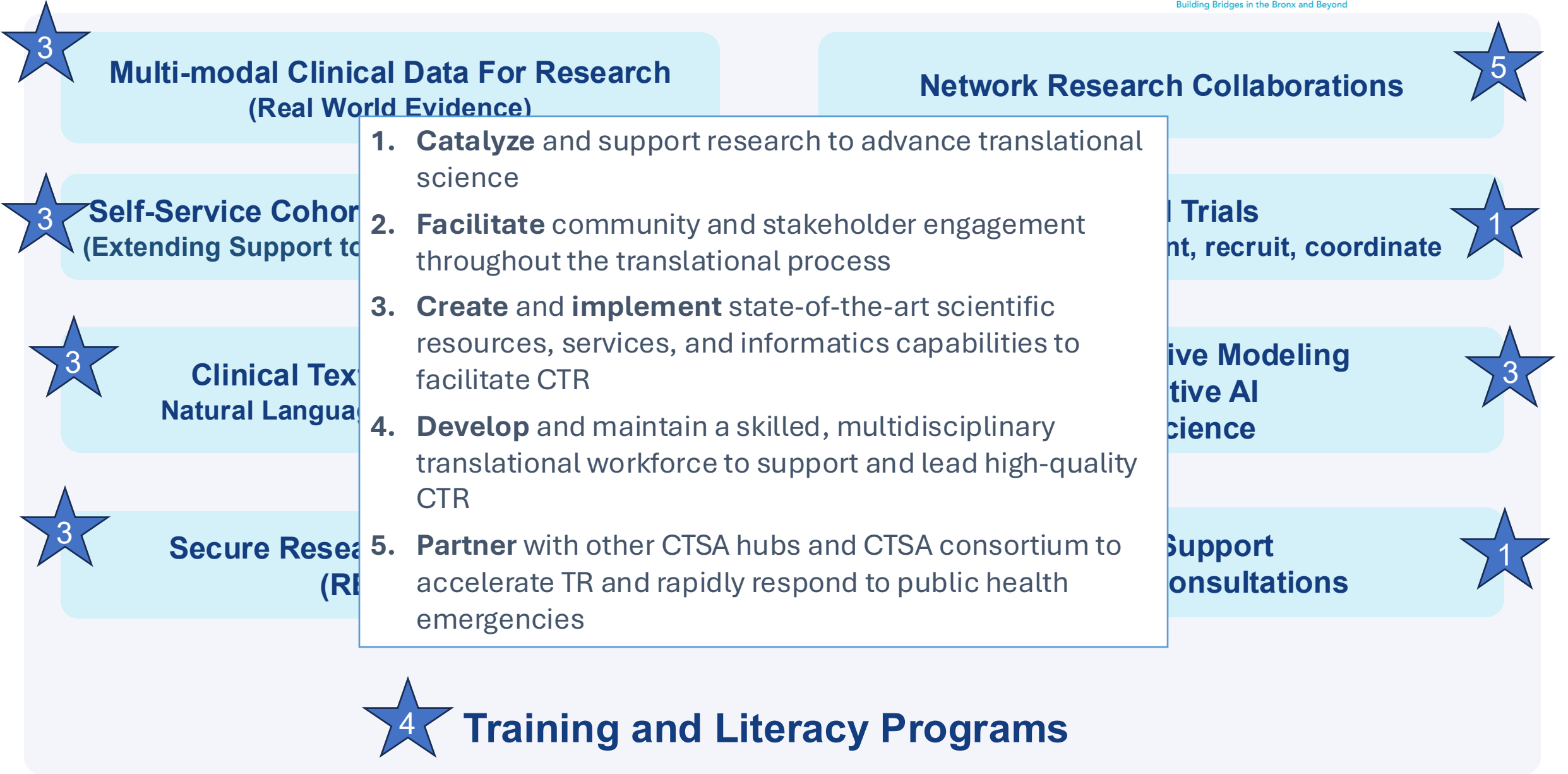
- New project governance committee to streamline project prioritization
- Re-aligned HI metrics with the broader ICTR strategic goals
- Extending RWD tools: Epic Cosmos, INSIGHT (PCORnet CRN) self-service queries
- Reviewing pilot/K/T applications to identify need for informatics services/AI models
- Collaborating with CCC on social determinants of health data utilization

Questions

How can we best recruit, develop, and retain informatics and data science talent, and create clear career pathways within the ICTR?

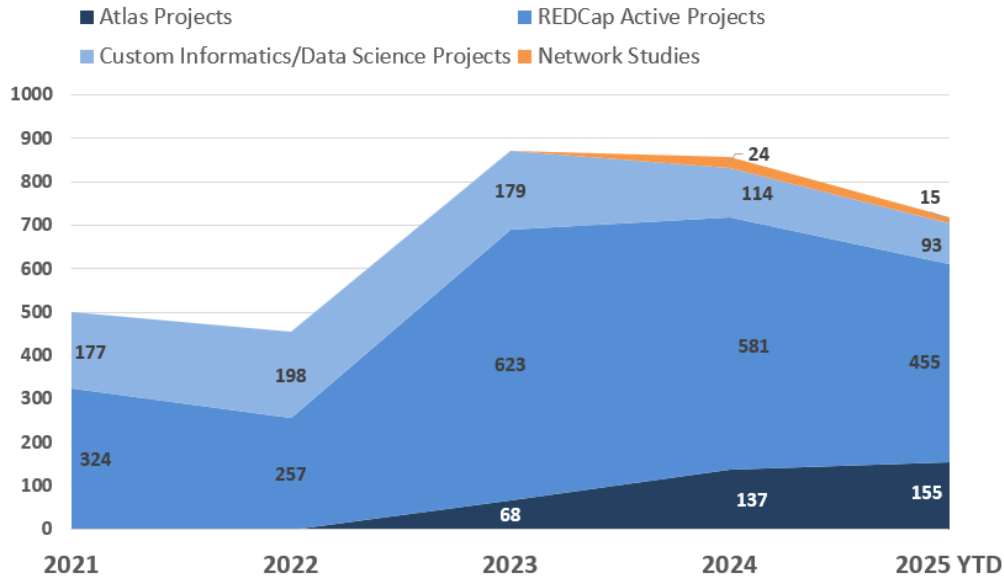
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Research Informatics Services

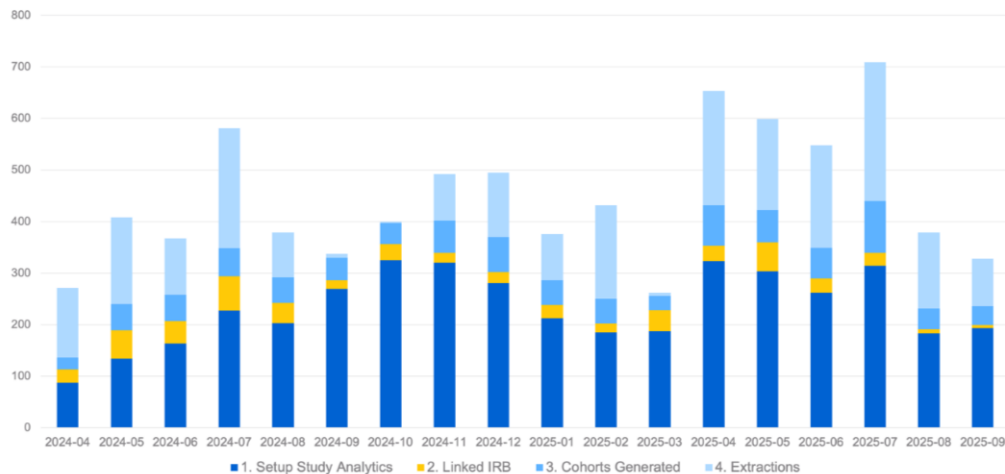


Informatics by Numbers (Year 3)

Informatics Support and Services



SEARCH Utilization



Oct 1, 2024 – Oct 1, 2025

251 Informatics Service Requests

718 Informatics Projects Supported

610 Self-Service Projects (85%)

36 Cancer Trials (patient matching)

21 Publications and Acknowledgements

197 Self-Service Users Trained

Collaborations (Year 3)

Across ICTR

BERD:

- Joint consultations with BERD and cancer informatics (Epidemiology and Population Health)
- Data Science 101 Series

Biorepository:

- Clinical data linkage + training materials
- Mapping individual specimens to the common data model (in progress)

Workforce Development, K, T, Pilot Projects, LHS:

- Application review, strengthening informatics and data science components (in progress)

Strategic Management

- ICTR metrics dashboard development (in progress)

Across Medical Center

- Pharmacy and Therapeutics Committee: infrastructure to assess medication effectiveness in practice

Nationally

- Tufts CTSI, NYU Cancer Center - joint RWE training materials
- INSIGHT/PCORnet CRN (Columbia, Cornell, NYU, Mount Sinai, Houston Methodist)

Informatics Literacy and Training

Year 3

Data Science 101
(EHR Data)

Real World Data for
Clinical and
Translational
Research (CRTP)

Epidemiology and
Population Health
Retreat (Data
Repositories)

Clinical Research
Coordinator
Training

Informatics and
Data Science
Fellowship for
Students (IMPACT)

AI Applications in
Medicine (Einstein
Students)

TRANSCEND
Lecture (Informatics
and Data Science)

Real World Data
Research User
Meetings

Departmental
Trainings
(Pathology, PM&R)

Innovations & Impact (Year 3)

- **AI Literacy and Oversight**

Expansion of committee, streamlining workflows

- **Clinical Trial Matching**

Algorithm refinement, integration with structured data

- **LLM-Supported EHR Data Mapping**

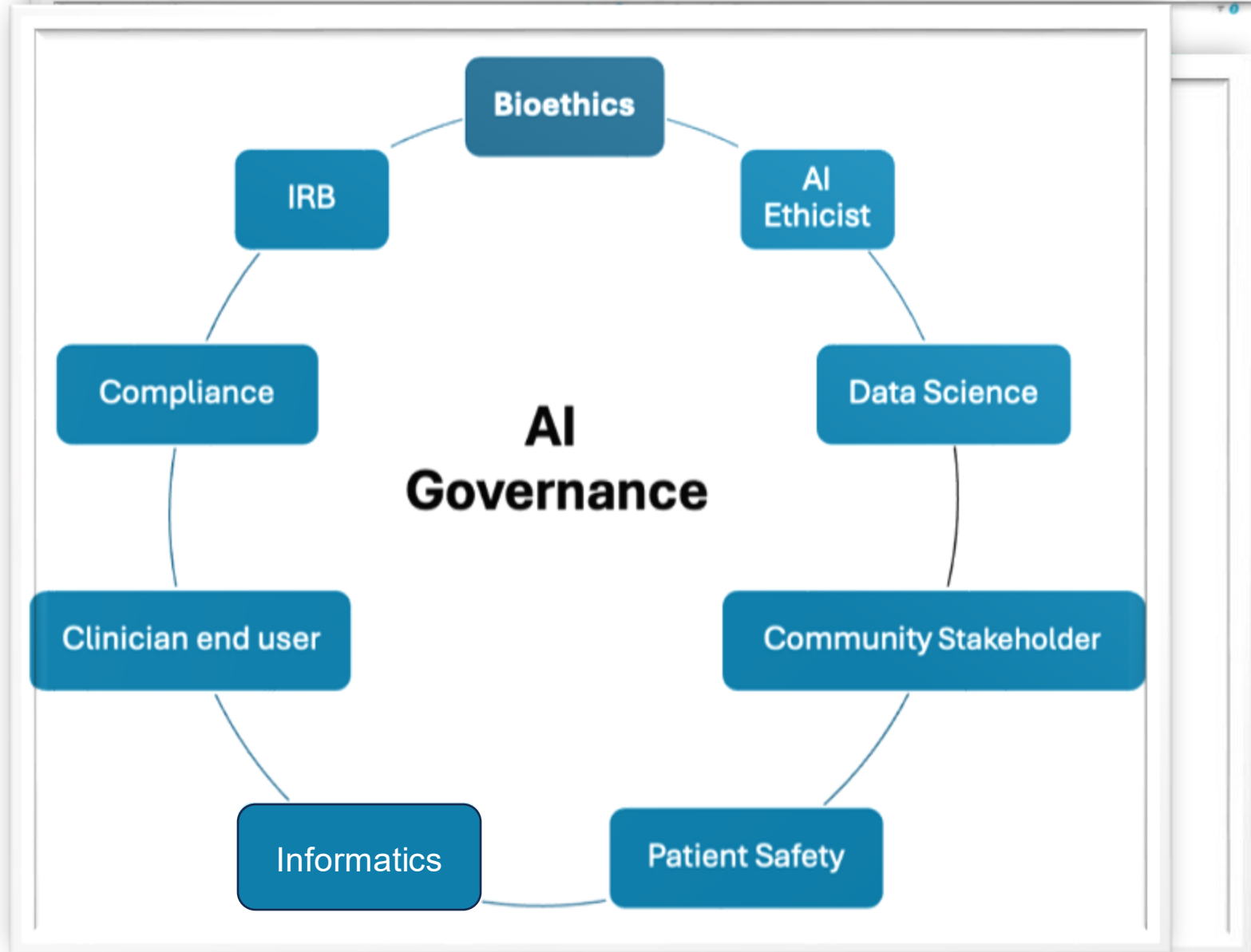
Developed system to map uncoded concepts

- **Integrated Research Platform**

Improvements in Cohort Discovery,
Data Extraction, Natural Language Processing

- **National Research Collaborations**

RESTORE, BASICS, OASIS (PCORnet)



Looking ahead to year 4

Expanding Availability and Diversity of Research Datasets

- Utilizing LLMs to expand mappings and detect errors
- Biomarkers and genomic data

Informatics and Data Science Services

- Expanding capacity to support Epic Cosmos, Dandelion, INSIGHT queries
- Mentoring researchers to lead large-scale network studies (PCORnet, OHDSI)

Clinical Trials

- Expansion of LLM patient-trial matching technology to trials beyond oncology
- Improving trial matching by incorporating structured data

Collaboration

- Review of T/K/CRTP/pilot project applications to strengthen informatics components
- CCC collaboration around SDoH data utilization for translational research

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