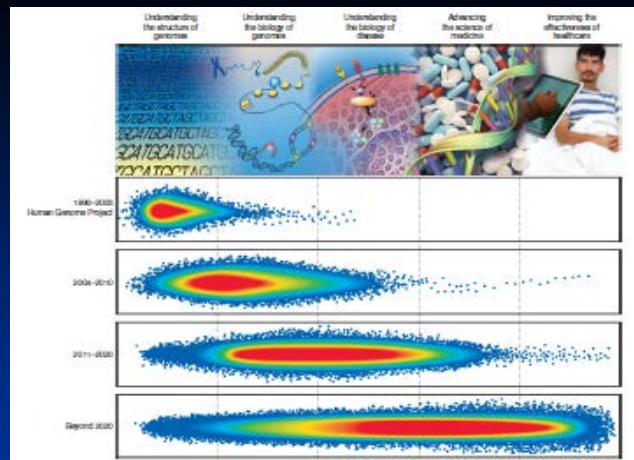




History of the IGNITE Network



Genetics inMedicine | REVIEW

American College of Medical Genetics and Genomics
Open

**Implementing genomic medicine in the clinic:
the future is here**

Teri A. Manolio, MD, PhD¹, Rex L. Chisholm, PhD², Brad Ozenberger, PhD³, Dan M. Roden, MD⁴, Marc S. Williams, MD^{4,5}, Richard Wilson, PhD⁶, David Bick, MD⁷, Erwin P. Bottinger, MD⁸, Murray H. Brilliant, PhD⁹, Charis Eng, MD, PhD¹⁰, Kelly A. Frazer, PhD¹¹, Bruce Korf, MD, PhD¹², David H. Ledbetter, PhD⁵, James R. Lupski, MD, PhD¹³, Clay Marsh, MD¹⁴, David Mrazek, MD¹⁵, Michael F. Murray, MD¹⁶, Peter H. O'Donnell, MD¹⁷, Daniel J. Rader, MD¹⁸, Mary V. Relling, PharmD¹⁹, Alan R. Shuldiner, MD²⁰, David Valle, MD²¹, Richard Weinshilboum, MD²², Eric D. Green, MD, PhD¹ and Geoffrey S. Ginsburg, MD, PhD²³

- NHGRI Strategic plan
- Genomic Medicine Colloquium in June and December 2011
- Several genomic medicine efforts, shared needs, common barriers

Common Barriers to Genomic Medicine

- Skepticism, resistance
- Expectations for morbidity/mortality evidence
- Needs for CLIA certification, IRB approval
- Confusion over consent and counseling models
- Difficulty integrating results with existing EMR systems
- Burden of interpreting and following up large numbers of results
- Reluctance to adopt novel patient care strategy

Genomic Medicine Pilot Demonstration Projects RFA

- **Expand and link existing genomic medicine efforts**
- **Develop new collaborative projects and methods, in diverse settings and populations**
- **Contribute to the evidence base regarding outcomes of incorporating genomic information into clinical care**
- **Define and share the processes of genomic medicine implementation, diffusion, and sustainability**

First Round of Projects

Genomic Medicine Pilot for Hypertension and Kidney Disease in Primary Care
PI: Carol Horowitz, Mount Sinai SOM

- **APOL1**



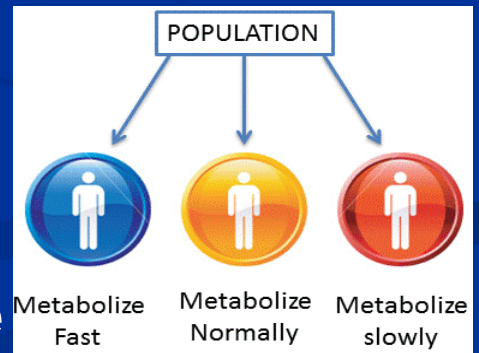
Implementation, Adoption, and Utility of Family History in Diverse Care Settings
PIs: Geoff Ginsburg and Lori Orlando, Duke University

- **Family History**



Genomic Medicine Implementation: The Personalized Medicine Program (PMP)
PI: Julie Johnson, University of Florida

- **Pharmacogenetics and genomic medicine education**

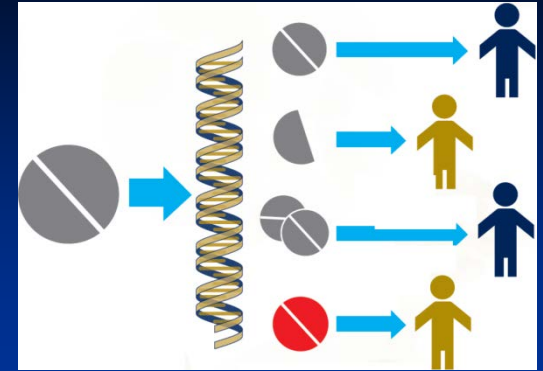


Second Round of Projects

Integrated, Individualized, Intelligent Prescribing (I3P)

**PIs: Josh Denny and Mia Levy,
Vanderbilt University**

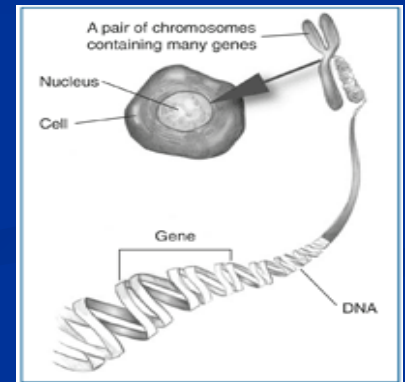
- **Pharmacogenetics implementation**



Genomic Diagnosis and Individualized Therapy of Highly Penetrant Genetic Diabetes

**PI: Toni Pollin,
University of Maryland at Baltimore**

- **Monogenic Diabetes**

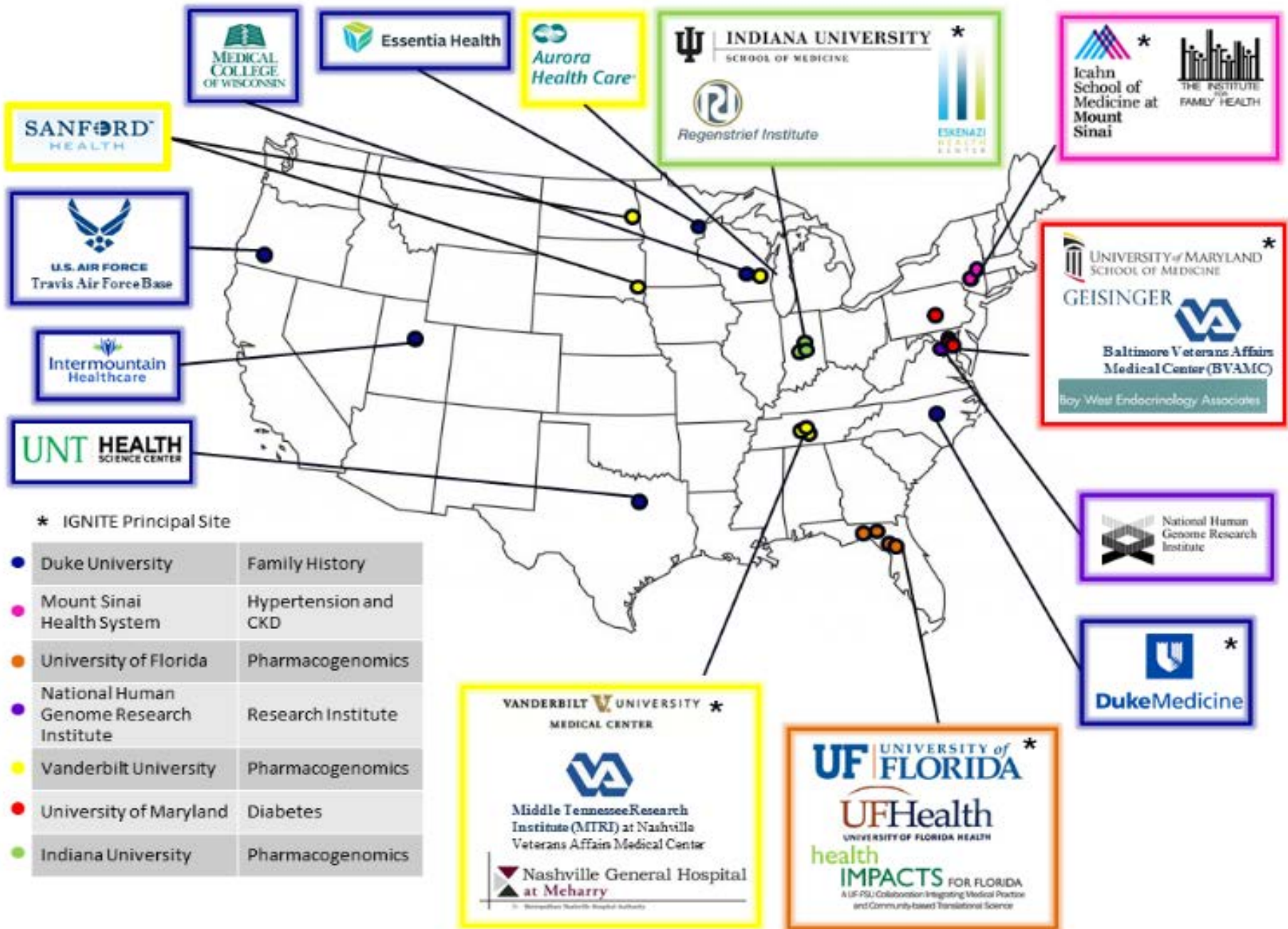


Embedding Pharmacogenotyping in an Integrated Health System for the Underserved

PIs: Todd Skaar and Paul Dexter

- **Pharmacogenetics health economics and adverse events**





External Scientific Panel

Name	Institution
Levi Garraway (Chair)	Harvard Medical School
Christopher Chute	Johns Hopkins Bloomberg School of Public Health
Karen Eilbeck	University of Utah School of Medicine
William Evans	St. Jude Children's Research Hospital
Katrina Goddard	NW Biobank at Kaiser Permanente
Kelly Ormond	Stanford University School of Medicine

IGNITE Network Working and Interest Groups

Working Group	Mission/Goals
Common Measures (CMG)	<ul style="list-style-type: none">• Identify implementation process and outcome measures at each site• Develop strategies for measuring processes and outcomes• Catalyze synergies
Dissemination, Outreach, and Sustainability (DOS)	<ul style="list-style-type: none">• Develop strategies to increase awareness• Create internal and external educational initiatives to support genomic medicine implementation• Design sustainability models
Provider Adoption and Education (PAE)	<ul style="list-style-type: none">• Collaborate and share experiences and resources in education on the clinical applications of genetics and genomics• Disseminate methods for increasing and assessing adoption of genomic medicine

IGNITE Network Working and Interest Groups

Working Group	Mission/Goals
Clinical Informatics Interest Group (CIIG)	<ul style="list-style-type: none">• Develop a CDS repository to store and index CDS rules and examples of artifacts• Develop EHR agnostic CDS rules• Assess ways to incorporate CDS without alert fatigue
Clinical Validity, Utility, and Economics (CVUE)	<ul style="list-style-type: none">• Examine evidence for adding clinically valid and useful variants to genomic medicine panels• Gather and submit evidence in support of moving genomic medicine into clinical practice
Pharmacogenetics (PGx)	<ul style="list-style-type: none">• Examine methods and outcomes of pharmacogenomic testing for various drug-gene pairs across IGNITE

**Many Thanks to
The IGNITE Network**