

Launching Your Research Program: Non-Traditional Research Pathway

Collaborative Translational Science

Dawn M. Coleman, MD

Handleman Research Professor

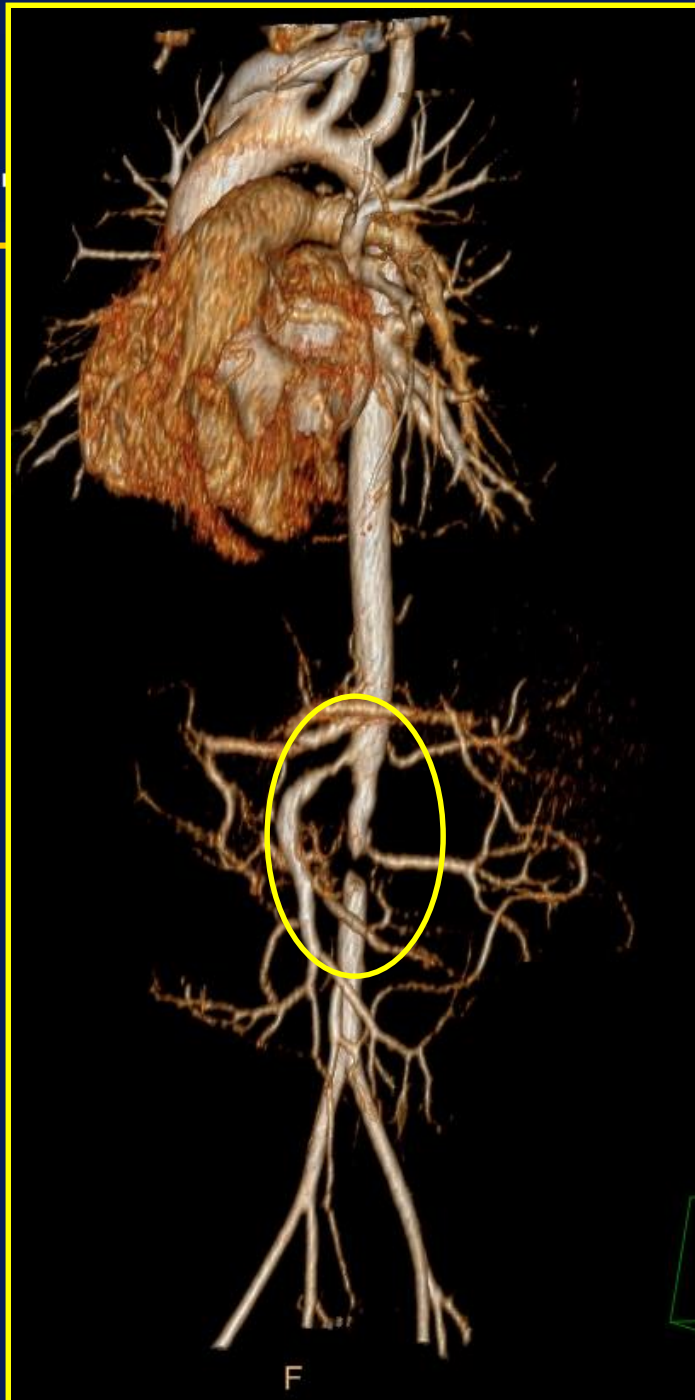
Associate Professor, Surgery and Pediatrics

Program Director, Vascular Surgery Integrated Residency and Fellowship

University of Michigan

LTC US Army Reserve, Medical Corps

Case Presentation



Phillips et al; Ann Vasc Surg; 2016(3)

Pediatric Nephrology

David Kershaw
*Zubin Modi

Pediatric Urology

John Park

Anesthesia

Critical Care

Social Work

Matt Butler

Vascular Surgery

James Stanley
Jonathan Eliason
*Dawn Coleman

Interventional Radiology

David Williams
Minhaj Khaja
Sahira Kazanjian

Nurse Coordinators

Char Minard
Susan Young

No Disclosures (\$\$)

- **R01 Co-investigator (R01 HL139672-04 – Genetic and Genomic Analysis of Arterial Dysplasia) with Dr. Santhi Ganesh**
- **Principal Investigator of Pediatric DAAD Studies (Michigan Medicine Dysplasia-Associated Arterial Disease) Precision Medicine Network**
 - Dr. Ganesh = PI of Adult DAAD Studies and Overall Scientific Director
- **Still learning and navigating actively multi-disciplinary and international collaboration (Ask me next year!)**
- **Eternal optimist**



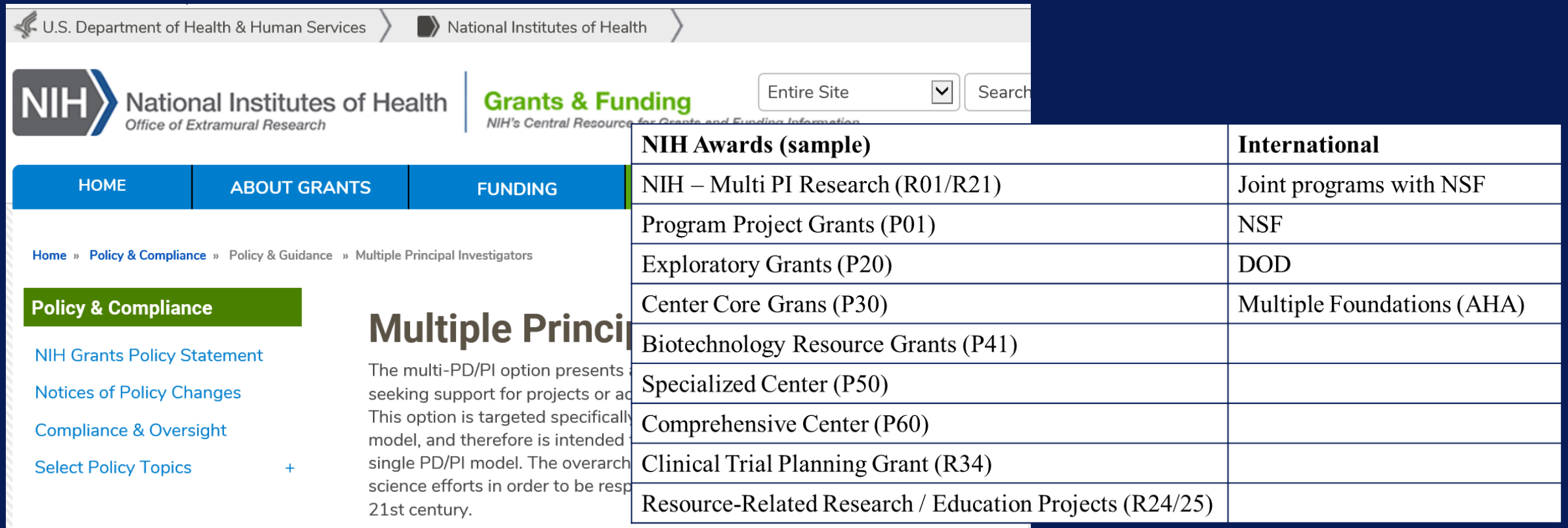
- **Why collaborate?**
- **Considerations for successful collaboration and translational team science**

Why collaborate?

- **Increased specialization of research expertise and methods**
- **Collaboration Pays: Surge of interest and investment in multi- and interdisciplinary team science programs**
- **Science-of-Team-Science (SciTS) - coined in 2006**
 - Encompasses an amalgam of conceptual and methodological strategies aimed at understanding and enhancing the outcomes of large-scale collaborative research and training programs

NIH Incentive:

- 2006 - the NIH modified its intramural tenure evaluation guidelines
- 2007 NIH permitted applications with multiple PIs



U.S. Department of Health & Human Services | National Institutes of Health

NIH National Institutes of Health Office of Extramural Research

Grants & Funding NIH's Central Resource for Grants and Funding Information

Entire Site [dropdown] Search [input]

HOME ABOUT GRANTS FUNDING

Home » Policy & Compliance » Policy & Guidance » Multiple Principal Investigators

Policy & Compliance

- NIH Grants Policy Statement
- Notices of Policy Changes
- Compliance & Oversight
- Select Policy Topics +

Multiple Principal Investigators

The multi-PD/PI option presents a new way for researchers seeking support for projects or activities. This option is targeted specifically at the multi-PD/PI model, and therefore is intended to complement the single PD/PI model. The overarching goal is to support science efforts in order to be responsive to the needs of the 21st century.

NIH Awards (sample)	International
NIH – Multi PI Research (R01/R21)	Joint programs with NSF
Program Project Grants (P01)	NSF
Exploratory Grants (P20)	DOD
Center Core Grants (P30)	Multiple Foundations (AHA)
Biotechnology Resource Grants (P41)	
Specialized Center (P50)	
Comprehensive Center (P60)	
Clinical Trial Planning Grant (R34)	
Resource-Related Research / Education Projects (R24/25)	

- **In 2017, the National Institutes of Health published a Funding Opportunity Announcement**
 - Highly integrated research teams
 - 3-6 PIs to address ambitious and challenging
 - Research questions that are important for the mission of the NIH - General Medical Sciences (NIGMS) and that are beyond the scope of one or two investigators.
- **Teams have been encouraged to consider far-reaching objectives that will produce major advances in their fields**

Thursday, October 3, 2019

NIH funding bolsters rare diseases research collaborations

New grants aimed at better understanding diseases, moving potential treatments closer to the clinic.

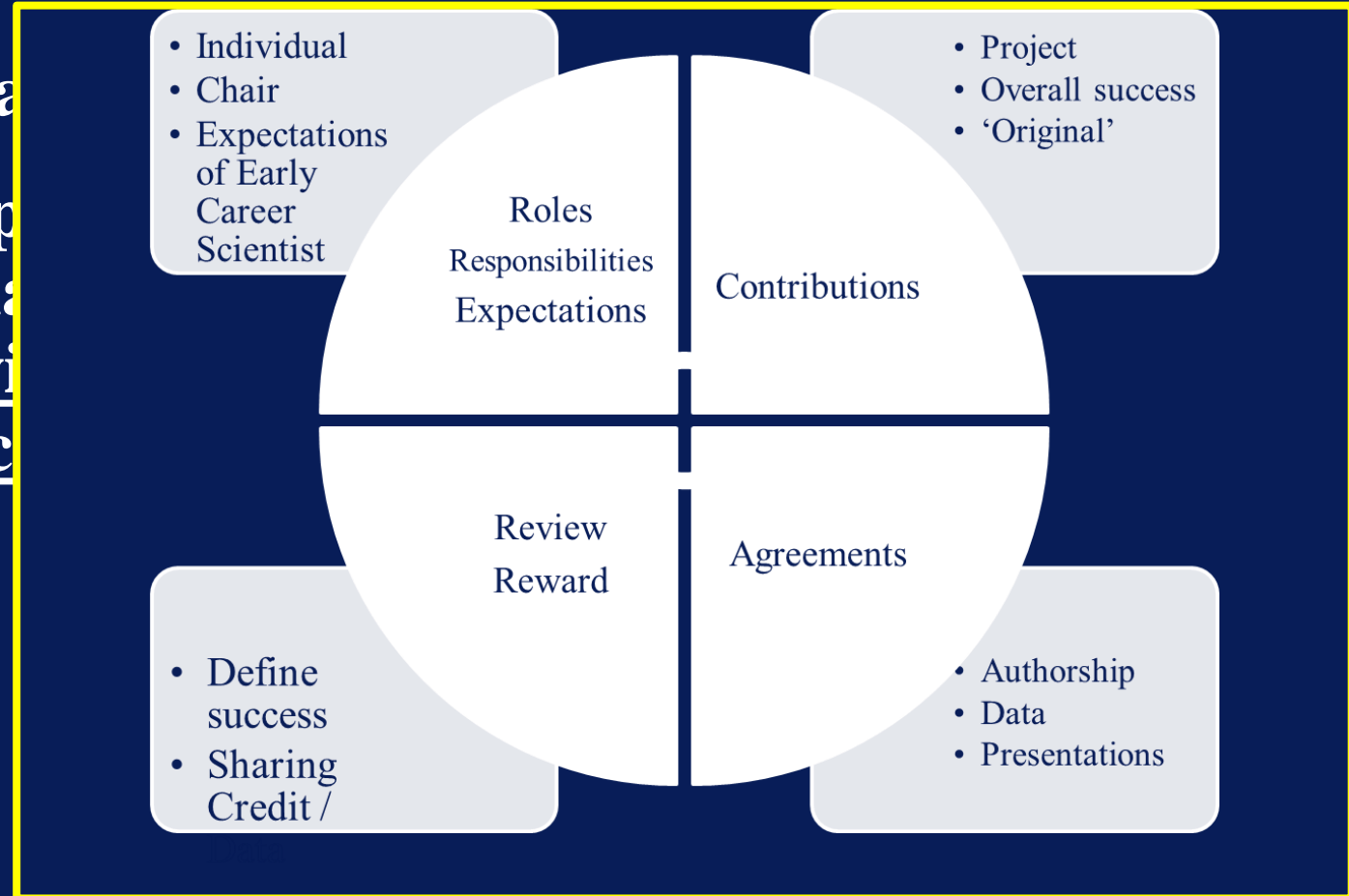


Of an estimated 6,500 to 7,000 known rare diseases, only a fraction – maybe 5% – have U.S. Food and Drug Administration-approved treatments. To increase that percentage, the National Institutes of Health has awarded approximately \$31 million in grants in fiscal year 2019 to 20 teams – including five new groups -- of scientists, clinicians, patients, families and patient advocates to study a wide range of rare diseases. An additional \$7 million has been awarded to a separate data coordinating center to support these research efforts.

The grants, which support consortia that together form the [Rare Diseases Clinical Research Network \(RDCRN\)](#), are aimed at fostering collaborative research among scientists to better understand how rare diseases progress and to develop improved approaches for diagnosis and treatment. This is the fourth five-year funding cycle for the RDCRN, which is supported by multiple NIH Institutes and Centers and led by NIH's [National Center for Advancing Translational Sciences \(NCATS\)](#) and the NCATS Office of Rare Diseases Research.

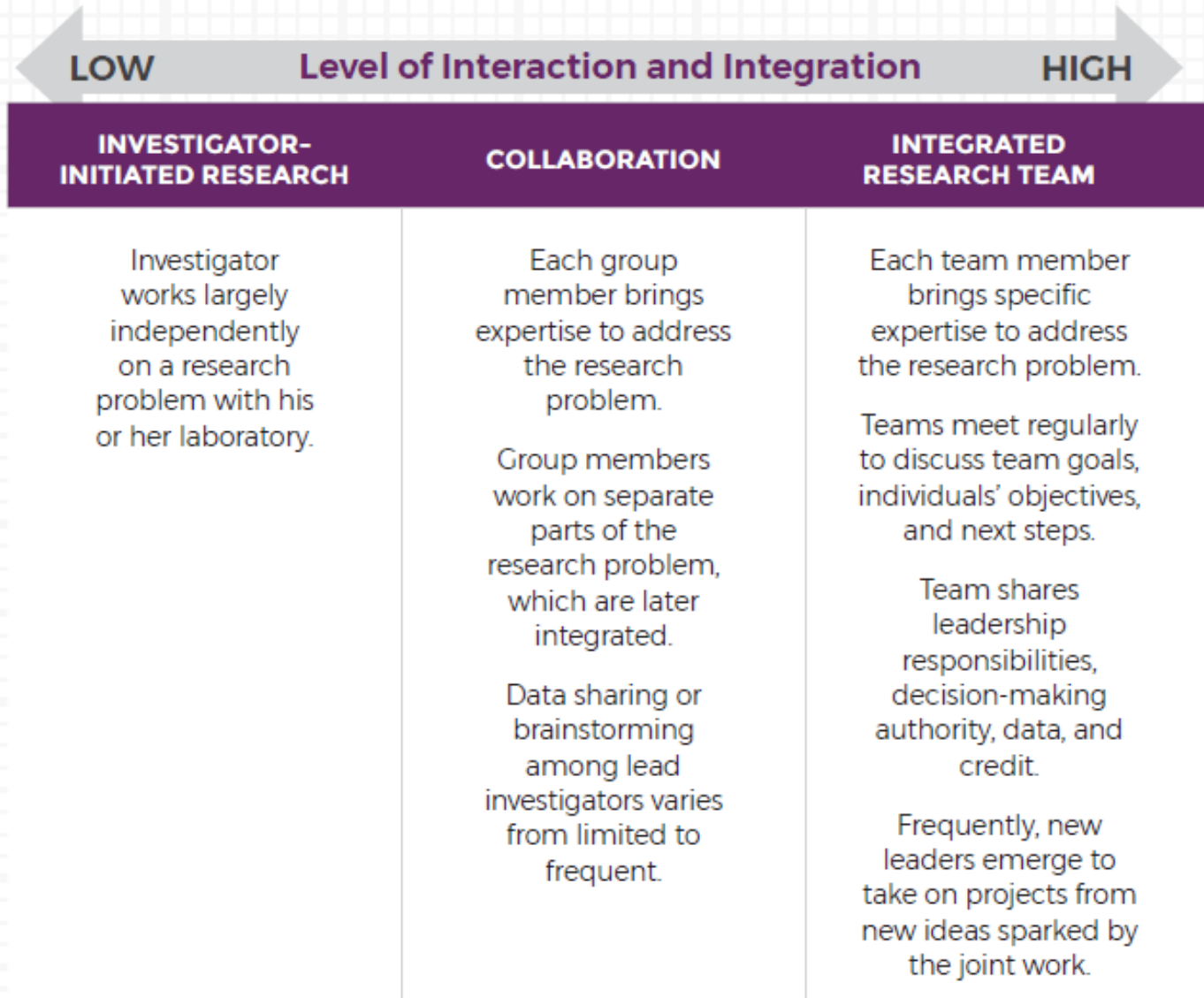
For the Tenure-Track Scientist

- Tenure-track investigators
- Institutional systems, particularly for career investigators that support research teams (and will be during the tenure process)
- Various tools exist:
 - Offer letter
 - Pre-tenure agreement
 - P&T criteria
 - Joint appointment agreements



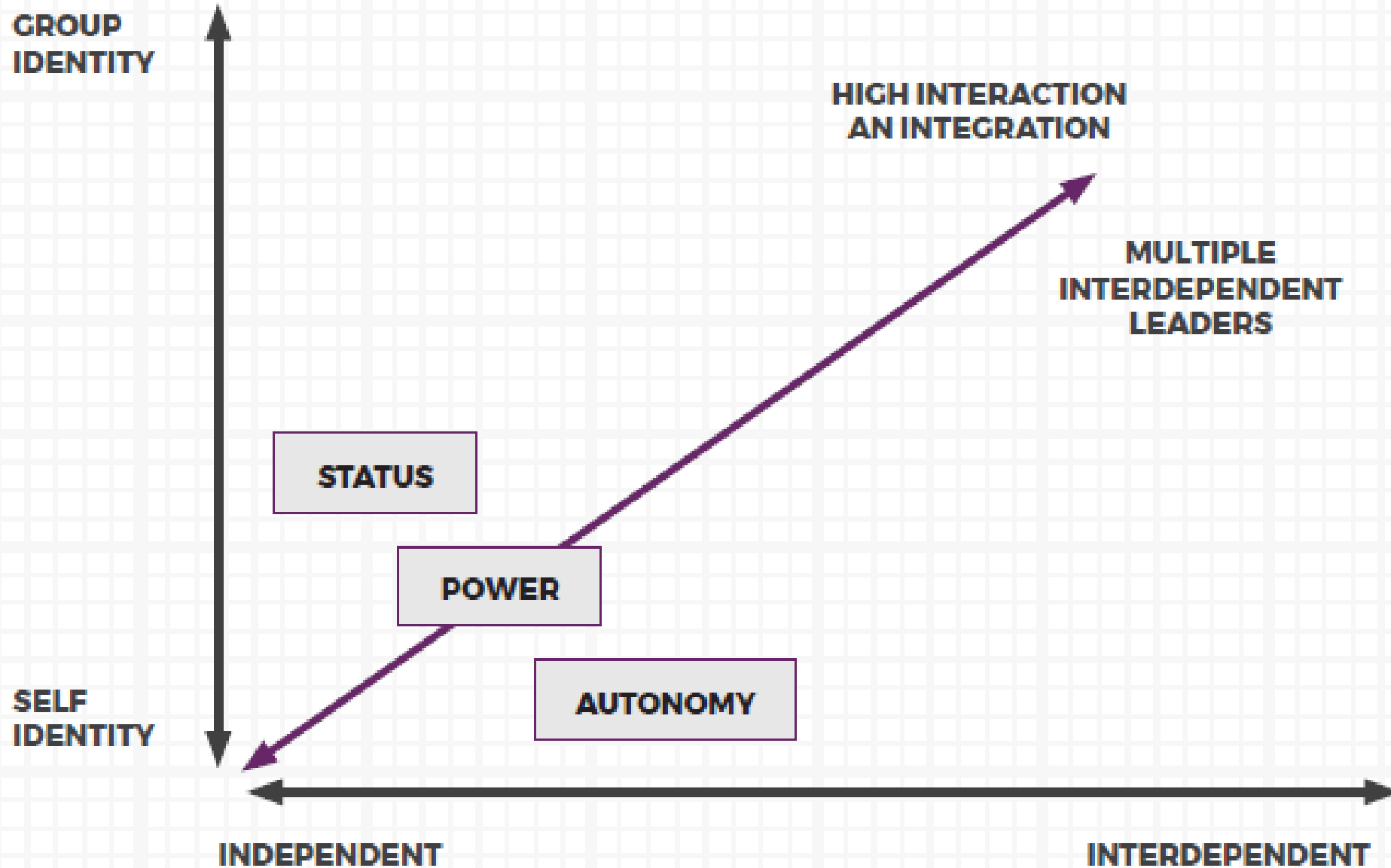
What Is a Scientific Research Team?

...think of it as a continuum...



- **Small Teams**
- **Research Centers**
- **Institutes**
- **Consortia**
- **Networks**

COLLABORATION INTRODUCES THREATS





Develop a shared vision:



Vision
Statement

Big Picture

Responsibility

The Value of Self Reflection

- Recognize (others may have a different perception)
 - Ask questions to understand
 - Appreciate
 - Remind yourself (differences)



Coordinate Multiple PIs

- **Individual roles/responsibilities**
- **Fiscal and management cooperation**
- **Process for making decisions on scientific direction and allocation of resources**
- **Data sharing and communication among investigators**
- **Publications and IP**
- **Procedures for resolving conflicts**

Recognition and Sharing Success



My Thoughts:

- **Recognize the collective power of diverse experts**
 - Build strong research relationships
 - Senior investigators get funded (established record) + team players (will deliver results)
- **Commit to the science/vision – be a little selfless**
- **Establish ground rules up front**
 - Focus on the SCIENCE!
- **Grant writing: highlight diverse expertise of your team, convey commitment to the common goal, allow EXTRA TIME, consider independent reviewer**
- **Avoid ‘bad apples’**



University of Michigan
Health System

M TAUBMAN INSTITUTE PRESENTS:



FIRST INTERNATIONAL SYMPOSIUM ON
**PEDIATRIC RENOVASCULAR
HYPERTENSION**

SAVE
the **DATE**

**November
11 & 12, 2019**
ANN ARBOR, MI

KEYNOTE SPEAKER

Harry C. Dietz III, MD

*Professor of Genetics in the Departments
of Medicine, Pediatrics, and Molecular
Biology and Genetics at the Johns
Hopkins University School of Medicine*



Please join colleagues and experts in Ann Arbor for this collaborative and informative conference which will bring multi-disciplinary experts together to identify best practices in the clinical management of these unique pediatric patients.

Attendance at the conference—including breaks and lunch—is free of charge. Visit UMichPediRVHSymposium.org for complete program, travel and registration information.

Follow on Twitter @PediRVH2019 for updates and news.

M MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

ORGANIZERS

Co-Chairs:

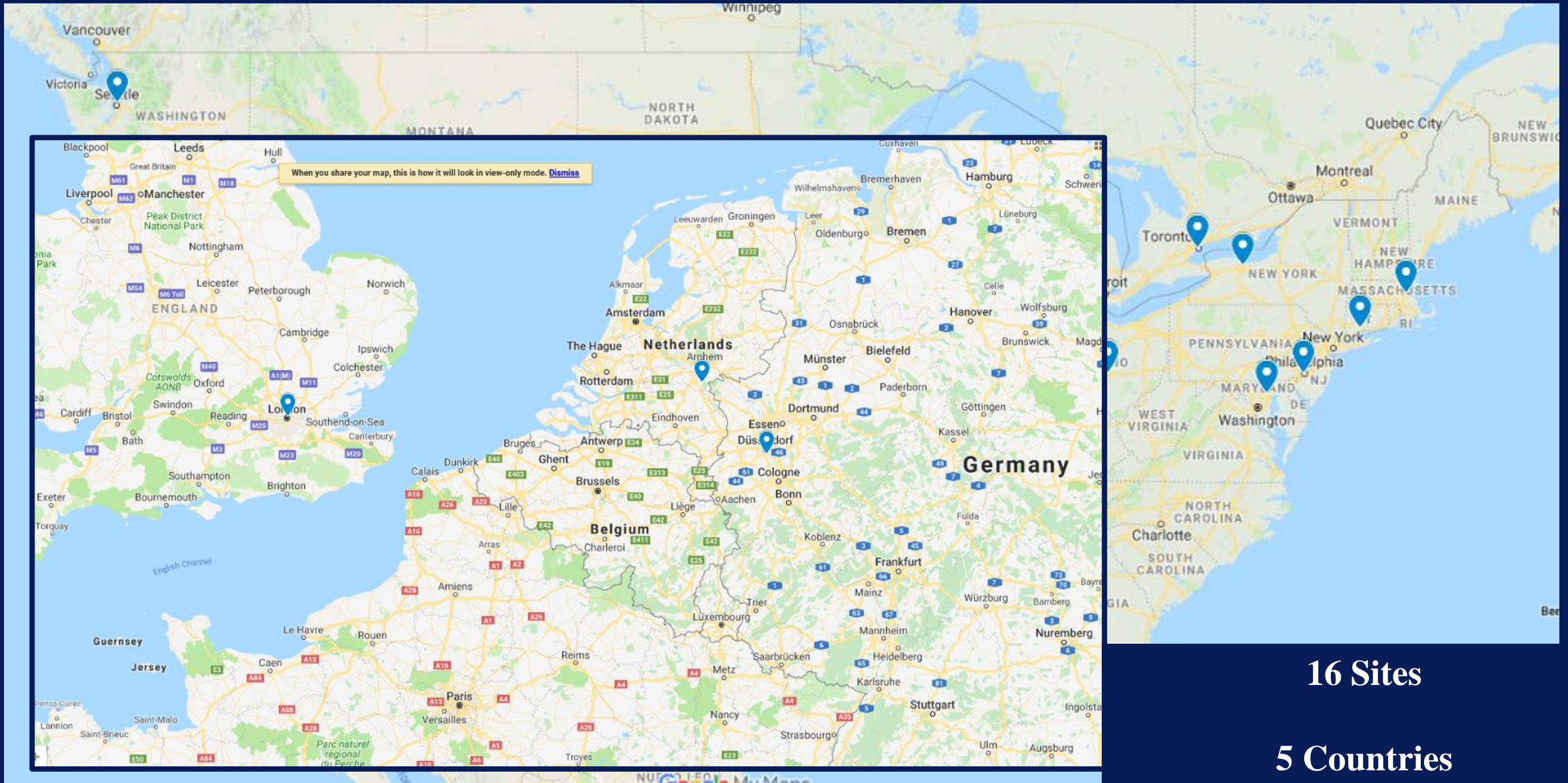
- Dawn Coleman, MD (University of Michigan)
- Rulan Parekh, MD, MS, FRCPC (The Hospital for Sick Children)

Planning Committee:

- Joao Amaral, MD (The Hospital for Sick Children)
- Michael Ferguson, MD (Boston Children's Hospital)
- Santhi Ganesh, MD (University of Michigan)
- Kevin Meyers, MD, MBBCh (Children's Hospital of Philadelphia)
- Kjell Tullus, MD, PhD, FRCPCH (Great Ormond Street Hospital for Children)



8 UM Speakers; 24 External Speakers; 7 Invited Guests (moderate/working groups)



Always keep the Science and the Patient in clear focus!



No man is more important than The Team. No coach is more important than The Team. The Team, The Team, The Team, and if we think that way, all of us, everything that you do, you take into consideration what effect does it have on my Team?

— *Bo Schembechler* —

AZ QUOTES