# Supporting Open Access for Researchers (SOAR)

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## Goals and Principles of Open Science at Duke

- Advance Science
  - Answer new questions
  - Combine data to increase it's power
  - Avoid duplication of effort
  - Foster new connections and collaborations
- Improve Research Integrity
  - Validate original analyses
  - Promote transparency and trustworthiness

- Principles
  - Facilitate appropriate access
  - Ensure appropriate governance
  - Maintain data utility
  - Share results (and data) from secondary analyses
  - Acknowledge and provide academic credit for those who share original data

The open science roadmap was introduced by Adrian Hernandez, MD

https://medschool.duke.edu/about-us/news-and-communications/med-school-blog/introducing-duke-school-medicine-roadmap-open-science





# SOAR Supporting Open Access for Researchers!

... A collaboration between Duke Clinical Research Institute (DCRI), academia, and private industry to share clinical research data and resources for the benefit of public health

#### Goals:

- Foster transparency & openness
- Inform & accelerate science by building on prior work & lessons learned
  - More Efficient
  - More Effective
  - More Timely

access to healthcare innovations that improve population health!

Target Audience: Investigators, Data Scientists, Statisticians





.....Through SOAR, DCRI offers access to:

#### 1. An Independent Review Committee (IRC) with subject matter experts

- a) Duke Clinical Research Institute (DCRI) & Bristol-Myers Squibb (BMS)
  - a) BMS shares its Clinical Trial datasets
  - b) DCRI's academic experts reviews proposals

#### 2. DCRI Datasets

- a) Duke Cardiac Catheterization Research Dataset (DukeCath) (de-identified)
- a) Duke Cardiac Catheterization Educational Dataset (DukeCathR) (anonymized and modified)

#### 3. Other Data Sharing Resources

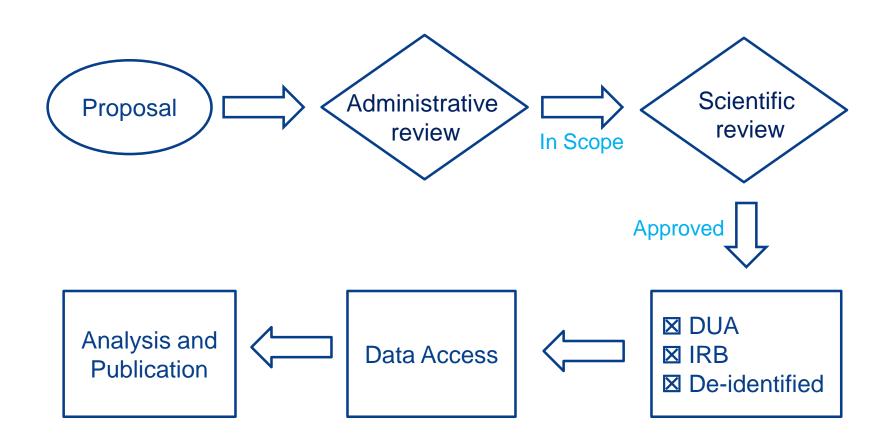
- a) Links to the Aggregate Analysis of ClinicalTrials.gov (AACT) database & dataset
- b) Links to request datasets shared through other platforms (i.e., NIH/DASH)
- c) DCRI Dataset Catalog







## **Research Dataset Request Process**



<sup>\*</sup> Feedback cycle is activated when IRC requests clarification or additional information from researcher



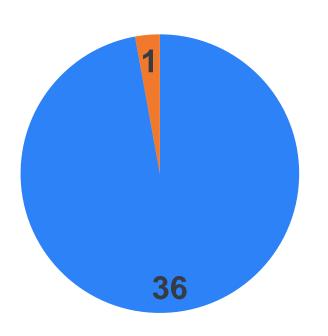




# SOAR Who's Asking for Data?

#### **Reviewed BMS-DCRI Proposals**

$$n = 37$$



#### Academia

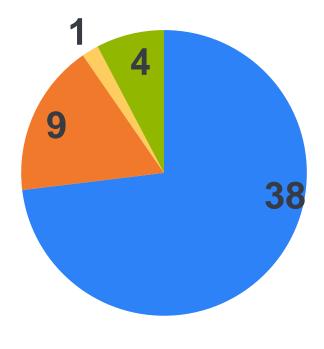




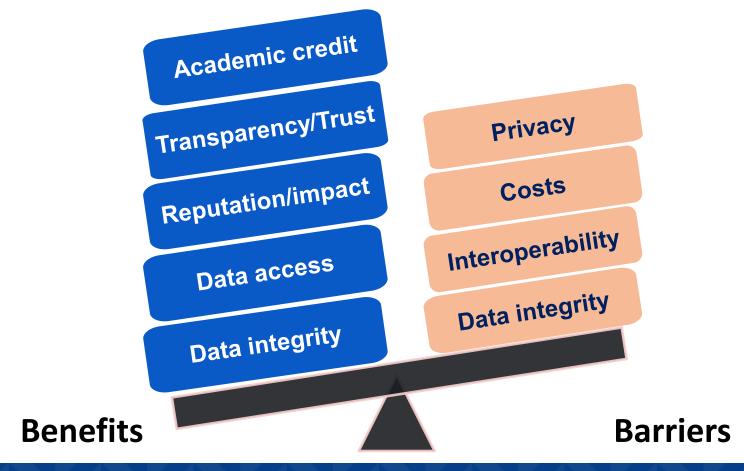


#### **DukeCath Datasets**

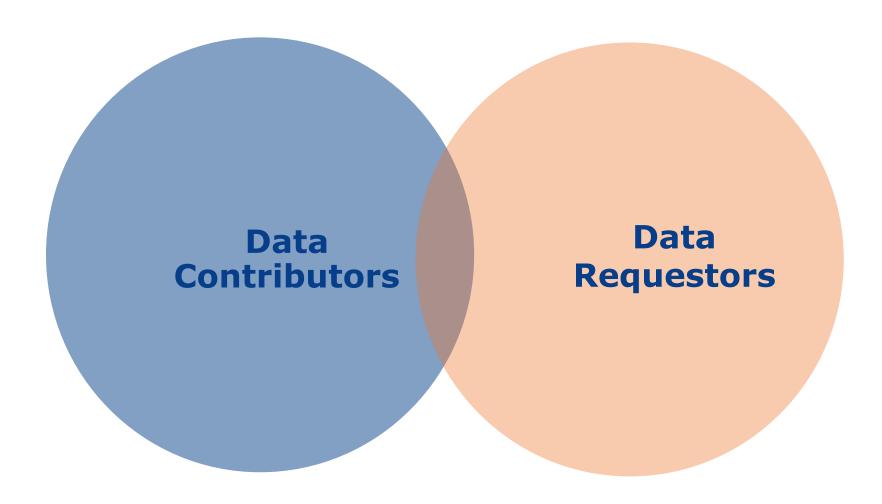
$$n = 50$$



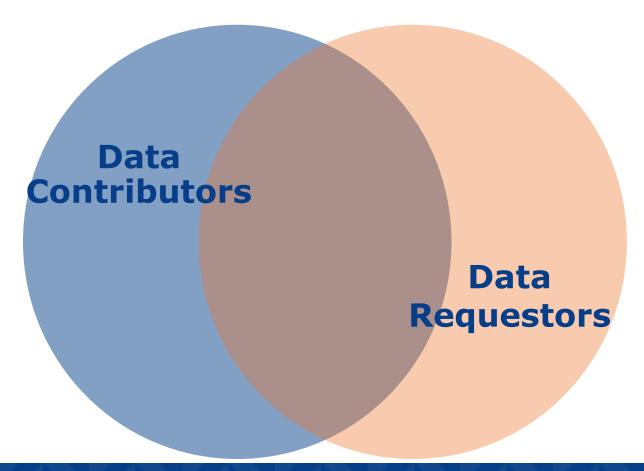
## **Benefits & Barriers:** Desired Future State



# Data Sharing: Current State



# Data Sharing: Desired Future State



### **Discussion**



## **Extras**



# Disclosure Statement – Frank W Rockhold, PhD



**Research Funding**: NIH, PCORI, Duke Clinical Research Institute, Astra Zeneca, ReNeuron, American Regent, Alzheimer's Drug Discovery Foundation, Janssen, BMS



Consulting, DSMB's and Honoraria: DCRI COI Disclosure Rockhold



**Boards**: European Medicines Agency Technical Advisory Group, Frontier Science Foundation Board of Directors, DataVant Scientific Advisory Board, Spencer Health Solutions Scientific Advisory Board, Athira Pharma Scientific Advisory Board, Vivli Platform Steering Committee, PI and chair SOAR Review Panel



**Equity Interest**: GlaxoSmithKline, DataVant, Athira, Spencer

#### **SOAR Faculty Leadership**

# Sponsor/Study Team:

Operational Support
Clinical, Data
Provisioning,
Statistical Experts

#### **Independent Review Committee:**

Puke Faculty
+
Invited Members
Subject Matter Experts
(Duke and non-Duke)

# SOAR Operations Team:

Project Management
Communications
Statistics
Regulatory
Contracts
& more





## **Independent Review Committee**

- Bristol-Myers Squibb shares its Clinical Trial datasets
- DCRI's academic experts review proposals

## **Sharing DCRI Datasets**

- DukeCath for research (de-identified)
- DukeCathR for education (anonymized and modified)





### **Works in Progress:**

- Collaboration with Vivli
- Sharing of additional DCRI-owned datasets
- Links to sites/platforms where DCRI-facilitated datasets are shared (ie NIH DASH)
- DCRI Dataset Catalog
- Extending the independent review committee (IRC) service



# Lessons Learned (so far!)

- SOAR Organizational Structure it takes a village
  - Multi-disciplinary resources from sponsor and DCRI
- Collaboration... Not Competition
- Not necessarily 'build it and they will come...'
- Transparency is more than the dataset
  - Data dictionaries
  - Contextual documentation
  - Subject matter expertise
  - Includes sharing of the secondary analysis datasets, methods and results





#### **Faculty Leadership**

- \* Frank Rockhold, PhD
- \* Eric Peterson, MD, MPH
- \* Michael Pencina, PhD
- \* Adrian Hernandez, MD

#### **Project Leader:**

Rebecca Wilgus, RN MSN

Email: data-sharing@dm.duke.edu

# Thank you!





# **Benefits & Barriers: Current State**

Privacy Transparency/Trust Costs Trust Reputation/impact Interoperability Data access Academic credit Data integrity Data integrity **Benefits** 



SOAR

**Barriers**