# Advisory Panel on Rare Disease: In-Person Meeting

**April 26, 2017**

**9:00 AM – 4:00 PM**

# Welcome, Introductions, and Setting the Stage

**Matt Cheung**

Chair, *Rare Disease Advisory Panel*

**Vincent Del Gaizo**

Co-Chair, *Rare Disease Advisory Panel*

# Housekeeping

- Today's meeting is open to the public and is being recorded
  - Members of the public are invited to listen to the teleconference and view the webinar
  - Meeting materials can be found on the PCORI website
  - Anyone may submit a comment through the webinar chat function, although no public comment period is scheduled
- Visit www.pcori.org/events for more information

# Housekeeping (cont.)

- We ask that panelists stand up their tent cards when they would like to speak and use the microphones
- Please remember to state your name when you speak

# Agenda

| Agenda Item | Time |
|---|---|
| Welcome, Introductions, and  Setting the Stage | 9:00 AM - 9:30 AM |
| Engagement Webinar Recap and Updates | 9:30 AM - 10:00 AM |
| Guidance for Merit Reviewers | 10:00 AM - 10:30 AM |
| Break | 10:30 AM - 10:45 AM |
| Rare Disease Methodology Paper Update | 10:45 AM - 11:00 AM |
| Core Outcome Sets for Rare Diseases | 11:00 AM - 12:00 PM |
| Lunch | 12:00 PM - 12:45 PM |
| NCATS Presentation: NCATS Rare Disease Activities | 12:45 PM - 1:30 PM |
| Leveraging PCORnet | 1:30 PM - 2:15 PM |
| Break | 2:15 PM - 2:30 PM |
| Other Areas of Interest | 2:30 PM - 3:30 PM |
| Recognition of Panelists Rolling off | 3:30 PM - 3:45 PM |
| Wrap Up and Next Steps | 3:45 PM - 4:00 PM |

# Introductions

- Please quickly state the following:
  - Name
  - Position title and organization
  - Stakeholder group you represent

# Introductions: Current Panelists

# Introductions (cont.)

**Naomi Aronson, PhD**

Executive Director, *Clinical Evaluation, Innovation, and Policy, Blue Cross and Blue Shield Association (BCBSA)*

Ex-Officio Member from PCORI's Methodology Committee

# Introductions (cont.)

**Marilyn Bull, MD, FAAP**

Morris Green Professor of Pediatrics, *Indiana University School of Medicine*

*Representing: Clinicians*

# Introductions (cont.)

**Matt Cheung, PhD, RPh** ***(Chair)***

Adjunct Professor, *Pharmacy Practice, University of the Pacific*

*Representing: Payers*

# Introductions (cont.)

**Vincent Del Gaizo** ***(Co-Chair)***

Owner, *Plaza Dry Cleaners*

*Representing: Patients, Caregivers and Patient Advocates*

# Introductions (cont.)

**Uday U. Deshmukh, MD, MPH**

Chief Medical Officer, *HealthHelp*

*Representing: Payers*

# Introductions (cont.)

**Sindy N. Escobar-Alvarez, PhD***

Senior Program Officer for Medical Research, *Doris Duke Charitable Foundation*

*Representing: Researchers*

* Attending via teleconference

# Introductions (cont.)

**Kathleen Gondek, MS, PhD**

Vice President, *Global Health Economics Outcomes Research and Epidemiology, Shire PLC*

*Representing: Industry*

# Introductions (cont.)

**Lisa Heral, RNBA, CCRC***

Registered Nurse, *Pacific Quest and Bay Clinic - Hawaii*

*Representing: Patients, Caregivers, and Patient Advocates*

* Attending via teleconference

# Introductions (cont.)

**Yaffa R. Rubinstein, MS, PhD**

Rare Disease Patient Registries and Bio-repositories Special Volunteer, The National Information Center of Health Services Research & Health Care Technology, *NLM/NIH*

*Representing: Researchers*

# Introductions (cont.)

**Mark W. Skinner, JD**

President/CEO, *Institute for Policy Advancement, Ltd.*

*Representing: Patients, Caregivers, and Patient Advocates*

# Introductions (cont.)

**Maureen Smith, MEd**

Board Member, *Canadian Organization for Rare Disorders (CORD)*
Patient Member, *Ontario Ministry of Health and Long Term Care*

*Representing: Patients, Caregivers, and Patient Advocates*

# Introductions (cont.)

**James J. Wu, MSc, MPH**

Senior Manager, *Global Health Economics, Amgen Inc.*

*Representing: Industry*

# RDAP Panelists (cont.)

**Patricia Furlong****

*Representing: Patients, Caregivers, and Patient Advocates*

**Michael Kruer***

*Representing: Researchers*

**Kate Lorig, MS, MPH, DrPH****

*Representing: Patients, Caregivers, and Patient Advocates*

**Marshall Summar, MD****

*Representing: Clinicians*

# Rare Disease Advisory Panel – PCORI Staff

**Yen-pin Chiang, PhD**
Deputy Chief Science Officer
*Office of the Chief Science Officer*

**Parag Aggarwal, PhD**
Senior Program Officer,
*Healthcare Delivery and Disparities Research*

**Dionna Attinson**
Program Assistant,
*Healthcare Delivery and Disparities Research*

**Sarah Philbin, MPH**
Program Associate
*Clinical Effectiveness and Decision Science*

**Allison Rabinowitz, MPH**
Program Associate
*Office of the Chief Science Officer*

**Tomica Singleton**
Senior Administrative Assistant,
*Healthcare Delivery and Disparities Research*

**Danielle Whicher, PhD, MS**
Program Officer,
*Clinical Effectiveness and Decision Science*

# Rare Disease Engagement/Research Webinar & Updates to the Webpage

Rare Disease Advisory Panel Meeting

April 26, 2017

**Lia Hotchkiss, MPH** *Director, Engagement Awards Programs*

**Jackie Gannon, National Urban Fellow**, *Eugene Washington PCORI Engagement Awards*

pcori

PATIENT-CENTERED OUTCOMES RESEARCH INSTITUTE

# Presentation Overview

- Review of the Eugene Washington PCORI Engagement Awards
- Updates on our newly funded rare disease projects (since the last meeting)
- Rare disease webinar
  - Held on April 20th, 2017
- New resource webpage for rare diseases
  - Live as of April 16th, 2017

# Program Overview

- A Research Support funding opportunity

- Support projects that will build a community better able to participate in patient-centered research (PCOR) and comparative clinical effectiveness research (CER), as well as serve as channels to disseminate study results

- Projects will produce deliverables that are useful to awardees, PCORI, and the broader PCOR community for increasing patient and stakeholder engagement in PCOR and CER

# Types of Engagement Awards

- **Engagement Award (EA) projects**
  - Build **knowledge** base about how patients and other stakeholders want to participate in PCOR/CER or receive research findings;
  - Implement **training** or skill **development** initiatives to build capacity for engaging in PCOR; and
  - Strengthen channels for **dissemination** of research findings.
- **Engagement Award Initiative Notice (EAIN)** supports **meetings/conferences** that align with PCORI's mission and strategic plan, and facilitate expansion of PCOR/CER in areas such as:
  - Research design and methodology
  - Research development
  - Dissemination and implementation

Awards of **up to $250,000** per project, up to **two years** in duration

# Engagement Awards Portfolio Overview

**Number of awards:**

**200***

**Amount awarded:**

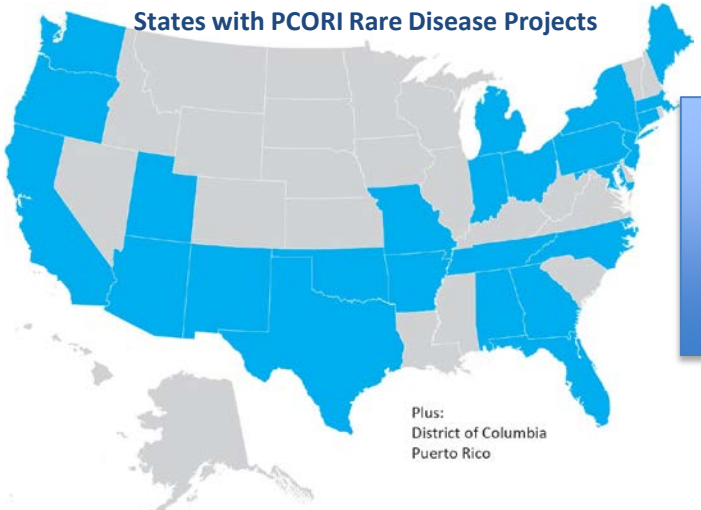
**$39.3 million**

**States with funded projects:**

**35** **(plus DC and Puerto Rico)**

24 are rare disease related

$3.9 million has gone toward funding rare disease projects




States where PCORI has funded rare disease projects: Research, P2P, and Engagement Awards

*As of April, 2017

# Presentation Overview

- Quick review of what the Eugene Washington PCORI Engagement Awards fund
- Updates on new rare disease funded projects since the last meeting
- Rare disease webinar
  - held on April 20th, 2017
- New resources webpage for rare diseases
  - Live as of April 16th, 2017

# Engagement Awards' Newly funded Rare Disease Projects (since October, 2016)

- **Michigan Public Health Institute:** ***IBEMC Stakeholder Network***
  - Project includes patients with Inborn errors of metabolism (IBEM), specifically phenylketonuria (PKU), in a series of webinars to teach the basic premises of research and train PKU patient partners and stakeholders to work together as partners in research
- **The Cholangiocarcinoma Foundation:** ***Cholangiocarcinoma Foundation Annual Conference***
  - Funding to include programming at their annual meeting to answer questions important to patients and create a forum to promote collaboration, improve understanding, advance research efforts, and provide education among the entire cholangiocarcinoma community
- **Hemophilia Federation of America:** ***Patient-centered Research for Innovation, Development, and Education (PRIDE)***
  - Project will train stakeholders in the bleeding disorders community using a blended learning method, which includes in-person trainings, and online education. PCOR/CER trainings will be imbedded into programming and meetings to maximize meaningful participation and program reach.
- **A Twist of Fate-ATS, Corp:** ***Arterial Tortuosity Syndrome PCOR/CER Summit Series***
  - Will host conferences to bring patient/families and specialists together to identify where the gaps are in the ATS healthcare system, to share and provide education for research projects to discuss clinical treatment options, which are working, which are not, and any new options that have been gained through patient-centered research

# Presentation Overview

- Quick review of what the Eugene Washington PCORI Engagement Awards fund
- Updates on new rare disease funded projects since the last meeting
- Rare disease webinar
  - Held on April 20th, 2017
- New resources webpage for rare diseases
  - Live as of April 16th, 2017

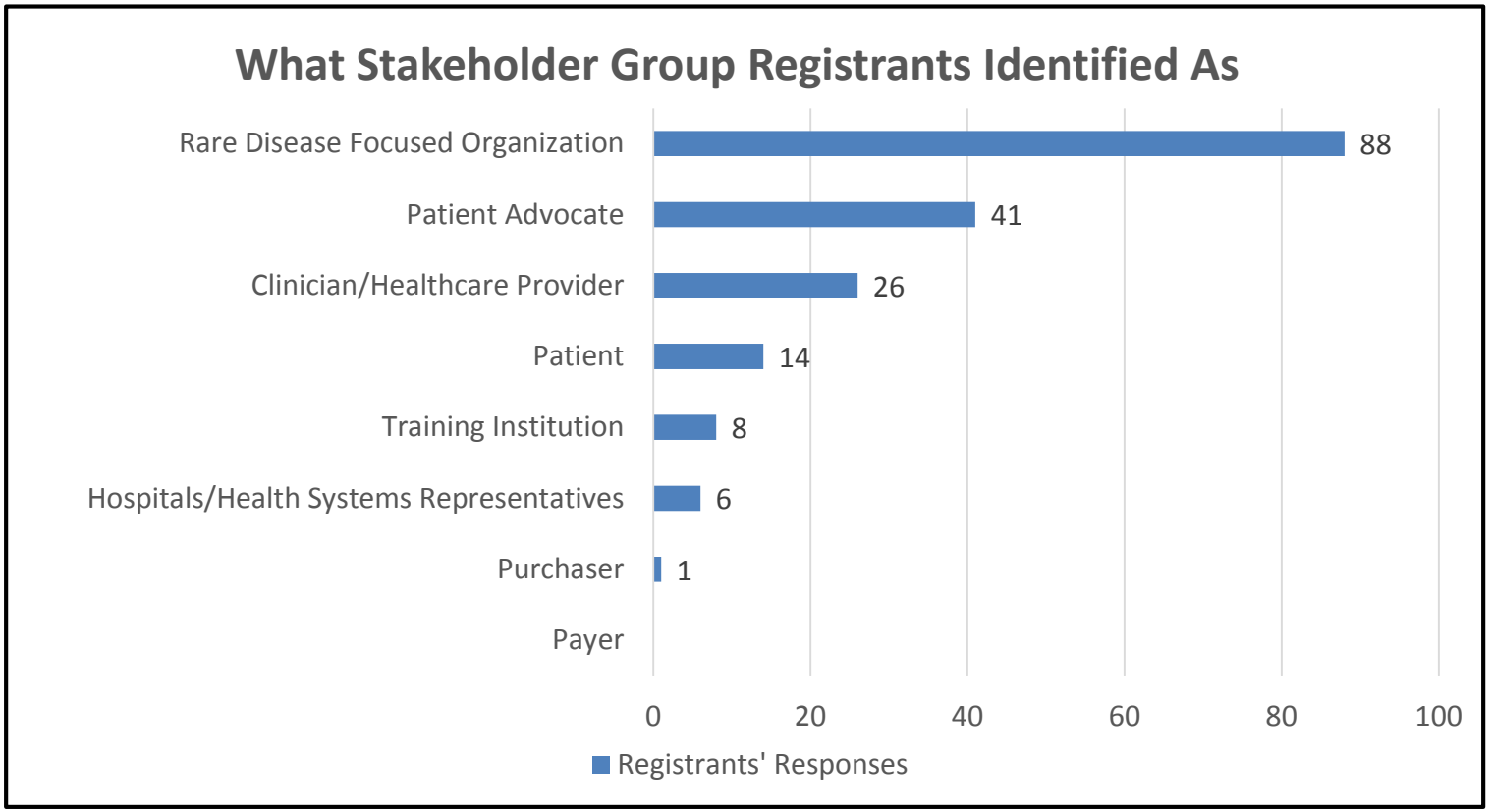
# PCORI's Rare Disease Webinar Recap

- Hosted by members of the Eugene Washington PCORI Engagement Awards Program, Pipeline to Proposals Program, and Research Awards on April 20th, 2017
  - 189 registrants
  - 89 attendees
  - Webinar archived here: http://www.pcori.org/events/2017/pcori-funding-opportunities-and-resources-rare-disease-organizations

- Webinar distributed via:
  - NORD's private Facebook page and an email to their members
  - The Coalition for Patient Advisory Groups (CPAG) with 140 different PAG members
  - The 2014 rare disease webinar and 2013 rare disease Round Table participant list
  - PCORI's network: newsletter, weekly updates, website, RDAP members, and Engagement Awardees

# PCORI's Rare Disease Webinar Registrants

- 51.2% identified as Rare Disease Organizations
- 23.8% identified as Patient Advocates
- 15.1% identified as Clinician/Healthcare Providers
- 8.1% identified as Patients



# Post-Survey Results from the Rare Disease Webinar

- **The feedback we requested demonstrated the following**:
  - 92.8% somewhat/strongly understand the meaning of "patient-centered research"
  - 85.7% somewhat/strongly understand "engagement" in research
  - 85.7% somewhat/strongly agree that it provided useful information on PCORI's funding streams
  - 80.1% somewhat/strongly agree that they had enough opportunities to submit questions during the webinar
  - 71.5% somewhat/strongly feel informed enough to know which funding option most applies to them
- **What Worked?**
  - "the presenters were encouraging"
  - "hearing perspectives from the PO's"
  - "I appreciate PCORI's willingness to devote time and energy to the vast number of webinars and resources made available"
  - Q&A and "willingness to help"

# Post-Survey Results from the Rare Disease Webinar Cont.

- **To work on for next time, based on participant feedback:**
  - Some of the information presented is already found on PCORI's website, and participant was looking for brand new information/insight
  - Looking for insights/notable pitfalls about rare disease proposals that get invited for a full proposal, but ultimately are not funded; or examples of "non-traditional" evidence of efficacy that did and didn't hold up to peer review
  - Examples of rejected LOIs/proposals
  - A lot of content to consume, and one person commented that it seemed too "high-level"
  - 21.4% responded "somewhat disagree" when asked if they feel informed enough to know what funding stream most applies to their rare disease project

# Presentation Overview

- Quick review of what the Eugene Washington PCORI Engagement Awards fund
- Updates on new rare disease funded projects since the last meeting
- Rare disease webinar
  - held on April 20th, 2017
- New resources webpage for rare diseases
  - Live as of April 16th, 2017

# New Page for Rare Disease Resources

## PCORI-Funded Rare Disease Projects and Related Resources

View listings of PCORI-funded rare disease clinical effectiveness research projects, as well as projects on coordination and engagement with the rare disease research community, and related resources.

### Applicant Resources

- Guidance for RD Orgs for Research Awards
- FAQs for Rare Disease Applicants

### Webinars & Other Events

- Webinar: PCORI Funding for Rare Diseases (2015)
- Town Hall: Management of Care Transitions for Emerging Adults with Sickle Cell Disease
- Rare Diseases Roundtable (2013)

### Blogs, Feature Stories, Videos & Other Resources

Blogs

- Big Data versus a Rare Disease

## Here you can find:

- All of PCORI's funded rare disease projects
- Applicant resources (rare disease-specific)
- Past rare disease related webinars/ town halls
- Rare disease PCORI-produced media, videos, and blogs

Accessed through the PCORI RDAP page or at the link below:

http://www.pcori.org/get-involved/join-advisory-panel/advisory-panel-rare-disease/pcori-funded-rare-disease-projects-and

# Guidance for Merit Reviewers

**Danielle Whicher, PhD, MS**

Program Officer, *Clinical Effectivness and Decision Science*

# Overview

- Background and history of the effort
- Process for incorporating RDAP guidance
- Review of revised PCORI Merit Review Criteria
- Discussion and comments on the proposed revisions
- *Related Materials:*
  - Rare Disease Research Guide for Merit Reviewers (original)
  - DRAFT: Proposed Addition of Rare Disease Specific Questions to PCORI's Merit Review Criteria
  - PCORI's Merit Review Criteria
  - How to Evaluate Human Subjects Protections

# Background

- One of the first RDAP activities involved drafting a “Rare Disease Research Guide for Merit Reviewers”
- To be useful for merit reviewers, information from this Guide needed to be incorporated into PCORI’s current merit review criteria
  - PCORI currently has 6 merit review criteria:
    - Potential for the study to fill critical gaps in evidence
    - Potential for the study findings to be adopted into clinical practice and improve delivery of care
    - Scientific merit
    - Investigators and environment
    - Patient-centeredness
    - Patient engagement
- Merit reviewers also evaluate plans for Human Subjects Protections

# Process for Incorporating RDAP Guidance

- PCORI staff completed a crosswalk between the Guide and PCORI's current merit review criteria
  - This exercise demonstrated that information from the Guide related predominantly to 2 of the 6 criteria:
    - Scientific merit
    - Investigators and environment
  - One point from the Guide also related to PCORI's guidance on How to Evaluate Human Subjects Protections
- PCORI staff then worked to re-organize the bullets into questions merit reviewers could use to evaluate applications

# Revised Merit Review Criteria

- Scientific Merit:
  - For rare disease studies, are the particular challenges in sample size calculations and assumptions (e.g., uncertainties in underlying incidence/prevalence rates, potential genetic heterogeneity, etc.) adequately accounted for?
  - For rare disease studies, are the particular challenges associated with recruitment (e.g. small, heterogeneous target populations that can be geographically dispersed) adequately accounted for?

# Revised Merit Review Criteria

- Investigators and environment:
  - For rare disease studies, are the investigators affiliated with or leveraging contemporary rare disease resources and/or research programs (e.g., registries, longitudinal database, etc.)?
- Potential Benefits of the Proposed Research to Human Subjects and Others:
  - For studies involving rare diseases , which often have severe outcomes, if the application involves a treatment with more serious risk factors (e.g. anemic coma), do those risks appear reasonable in relation to anticipated benefits?

# Discussion Questions

- Are there other unique considerations related to rare disease research that are missing from these proposed revisions?
- Were any of the points from the original *Rare Disease Research Guide for Merit Reviewers* not adequately incorporated into the merit review criteria?
- Do these revisions unfairly advantage or disadvantage rare disease applications submitted to PCORI?

# Break

**We will resume at 10:45 AM ET**

# Rare Disease Methodology Paper Update

**Danielle Whicher, PhD, MS**

Program Officer, *Clinical Effectivness and Decision Science*

**Naomi Aronson, PhD**

Ex-Officio Member from PCORI's Methodology Committee

# Purpose and Approach

- **Purpose**:
  - To raise awareness of the available methodological and analytic approaches relevant to conducting rare disease research
- **Approach**:
  - Reviewed the literature on:
    - Methodological approaches to conducting research on rare diseases
    - How registries and other research infrastructure can facilitate rare disease research
  - Reviewed research methods used in PCORI's rare disease portfolio
  - Requested feedback from RDAP members and PCORI staff

# Paper Overview

- Identified and summarized 3 articles that developed algorithms/provided guidance on the relationship between rare disease or intervention characteristics and study design decisions (Appendix A)
- Described study design and analytic approaches mentioned in the literature that might be relevant to addressing research challenges posed by rare diseases (Appendix B)
- Summarized literature describing the utility of existing infrastructure for supporting rare disease research
- Provided an overview of the research methods used by PCORI-funded rare disease projects and PCORnet PPRNs focusing on one or more RDs (Appendix C)
- Suggested areas for further development

# Presentation to the Methodology Committee

- The paper was presented to the Methodology Committee (MC) on December 12th in an effort to:
  - Review and vet the methodology statements in the paper to determine if any statements need to be changed or clarified
- The MC provided useful feedback, including additional sources to consider incorporating and a suggestion to clarify the definition of Bayesian framework

# Next Steps

- Based on the feedback from the MC, we revised the paper.
- The revised version of the paper will be re-presented to the MC on May 1, 2017
- Dissemination:
  - Making the paper available on the PCORI website
  - Exploring opportunities for peer-reviewed publication
    - Orphanet Journal of Rare Diseases

# Questions?

# Developing Core Outcome Sets for Rare Diseases

**Danielle Whicher, PhD, MS**

Program Officer, *Clinical Effectiveness and Decision Science*

# Overview

- Background for the development of core outcomes for rare diseases
- Clarification of problem we are trying to solve
- Discussion and identification of next steps in creating core outcome sets for rare diseases
- *Related Materials:*
  - Memo: Developing Core Outcome Sets for Rare Diseases

# Background

- RDAP previously expressed interest in developing core outcome sets for rare diseases
- PCORI performed a literature search of previous examples of core outcome sets for both rare diseases and for specific disease states
- PCORI has developed the following discussion points for RDAP to determine future directions

# What is the Problem we are Trying to Solve?

- What is the aim of this initiative?
  - Ensure efforts to collect core outcomes as part of clinical care incorporate measures that are important to people with rare diseases?
  - Make rare-disease research more patient centered?
  - Improve comparability between rare disease studies or registries?
    - Should we focus on a single rare disease or is there a need to facilitate cross-disease comparisons?
    - **Create core outcome sets – COMET**
      - "Rather, there is an expectation that the core outcomes will be collected and reported, making it easier for the results of trials to be compared, contrasted and combined as appropriate; while researchers continue to explore other outcomes as well"
    - **Create core data elements – EPIRARE**
      - "Therefore the adoption of the European RDR Platform CDE has the main aim to promote the collection, according to common specifications, of data necessary to compute indicators which are both relevant to the purpose of the registry and key for more general purposes regarding RD, the achievement of which may require indicator and data comparability."

# How to Solve this Problem?

- Previous groups that identified core outcomes for ***specific clinical areas*** used the following approach:
    1. Perform a literature review or identify a clinical topic
    2. Develop a stakeholder advisory group that includes patients, clinicians, researchers, and other relevant contributors
    3. Reach group consensus on core outcomes either by discussion and/or use of the Delphi method

# How to Solve this Problem?

- Can we assemble a group to identity factors that should be taken into consideration when developing core outcomes for rare diseases?
- Who are the experts that would need to be involved?
- To what extent would we need support from the FDA and industry?

# What are the next steps?

# Lunch

**We will resume at 12:45 PM ET**

# NCATS Rare Disease Initiatives

**Anne Pariser, MD**
Deputy Director, *Office of Rare Disease Research*
*NIH/NCATS*

**Rashmi Gopal-Srivastava, MSc, PhD**
Director, *Extramural Research Program,*
*Office of Rare Disease Research, NIH/NCATS*

# *Office of Rare Diseases Research*

**Anne Pariser, MD**
**Deputy Director, Office of Rare Diseases Research**
**National Center for Advancing Translational Sciences (NCATS), NIH**
**April 26, 2017**

NCATS

NIH National Center for Advancing Translational Sciences

# Outline

- NIH and Rare Diseases
- NCATS
  - Office of Rare Diseases Research Programs
  - Other elected NCATS Programs
- Opportunities for Collaboration

# NIH and Rare Diseases

- National Institutes of Health
  - 27 Institutes
  - Generally, clustered around therapeutic areas/organ systems
    - E.g., NI Heart, Lung and Blood, Cancer, Neurological Disorders and Stroke, etc.
  - ~$3 billion for rare diseases research
    - 90% of funding goes to extramural programs
    - Mainly to research grants

# NCATS

- National Center for Advancing Translational Sciences
  - Mission: "transform the translational science process so that new treatments and cures for disease can be delivered to patients faster"[1]
- Key themes:
  - Disease agnostic
  - The 3D's NCATS 3Ds:
    - **Developing** new approaches, technologies, resources and models
    - **Demonstrating** their usefulness
    - **Disseminating** the data, analysis and methodologies to the community
  - Collaboration: Lead innovative and collaborative approaches that are cross-cutting and applicable to the broad scientific community

[1] https://ncats.nih.gov/about/center

# NCATS (2)

- Division/Offices
  - Office of Rare Diseases Research (ORDR)
  - Division of Clinical Innovation (DCI)
  - Division of Preclinical Innovation (DPI)

# ORDR: Approach

- Smart use of data technology
- Sharing tools and best practices
- Partnering for success
- Information and Training

# ORDR Initiatives

- **ORDR Mission:** To facilitate, support, and accelerate the translation of rare disease science to benefit patients

- **Major Initiatives:**

Rare Diseases Clinical Research Network (RDCRN) Program

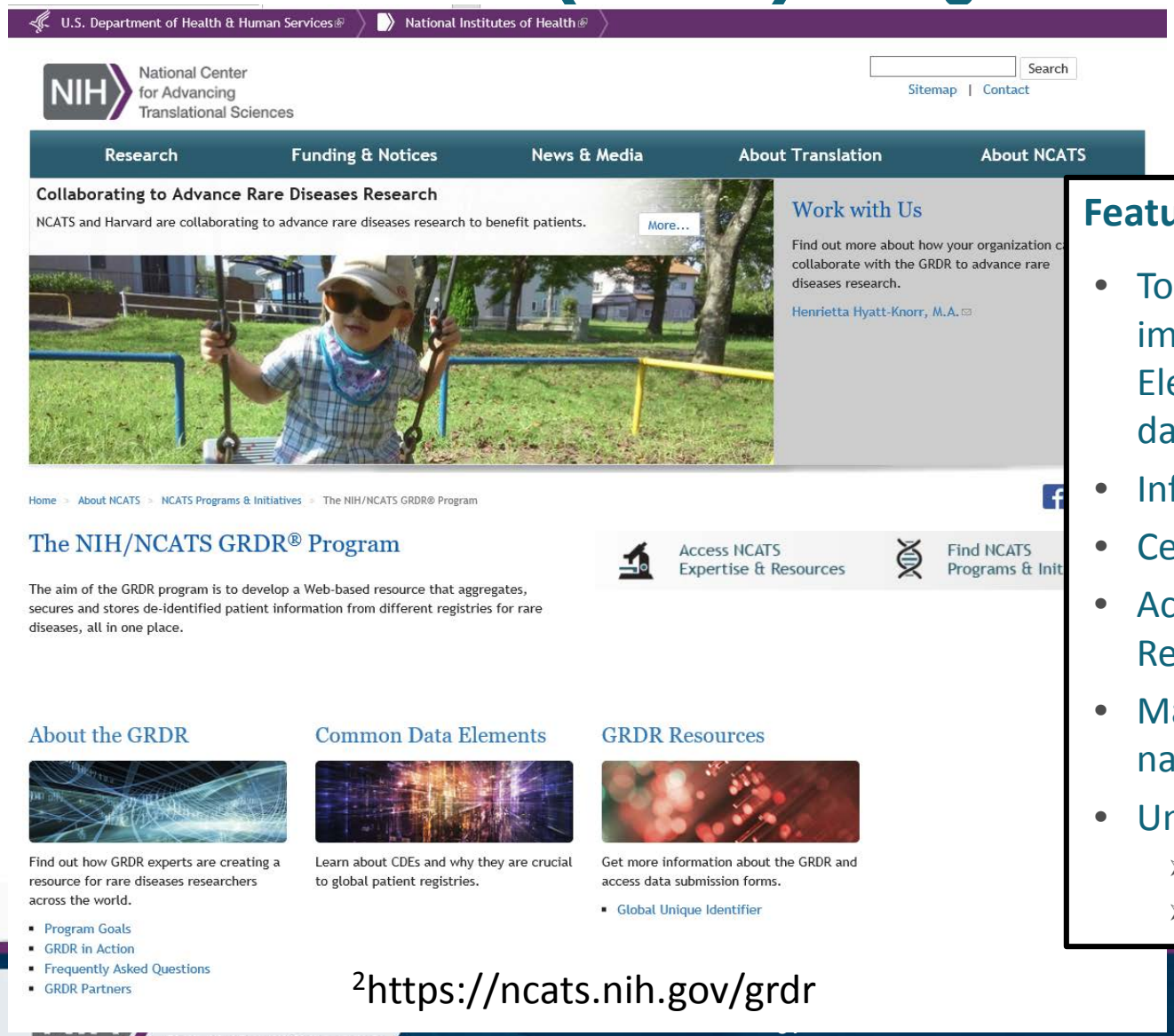
Genetics And Rare Diseases (GARD) Information Center

Global Rare Diseases Patient Registry Data Repository (GRDR)

NCATS Scientific Conferences Program

NCATS Toolkit Project

# Global Rare Diseases Patient Registry (GRDR) Program[2]




[2]https://ncats.nih.gov/grdr

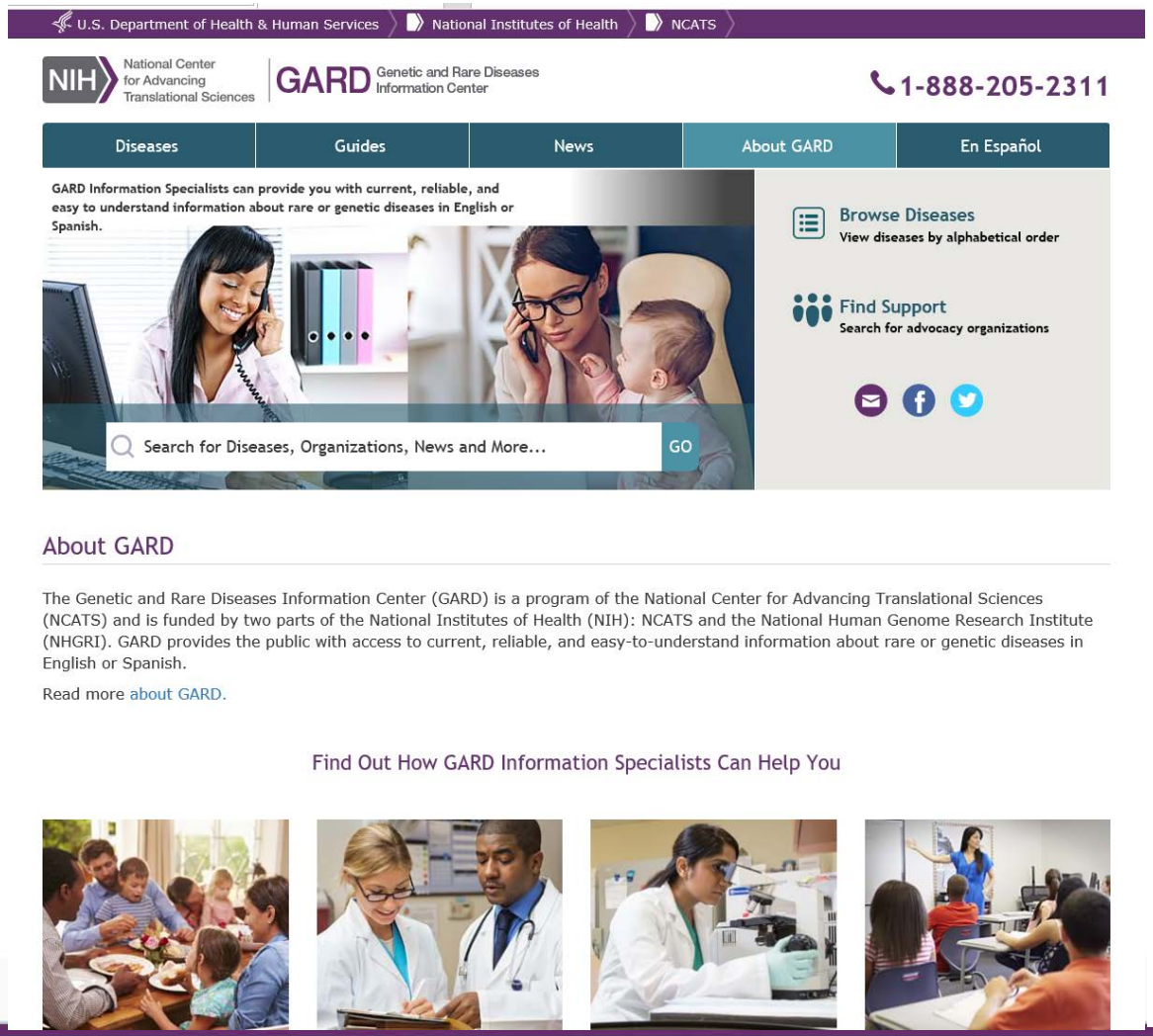
## Features:

- Tools and guidance for building impactful Common Data Elements (CDEs) for collecting data
- Informed consent templates
- Central IRB services
- Access to Privacy-Preserving Record Linkage (GUID)
- Map patient data to CDEs & national standards
- Under development
  - Data standards
  - Study design and conduct advice

# GRDR2


- Under development
  - Multi-disciplinary approach
  - Data standards identification and adoption
  - Templates and guidelines for clinical registry construction
  - Patient voice
- Series of meetings over the next 2 years
- Plan: develop tools, templates, guidelines, website

# Genetic and Rare Diseases Information Center (GARD)[3]




**Online resource** with:

- **Up-to-date, reliable** and **easy-to-understand information** on rare or genetic diseases
- In **English** or **Spanish**
- For **people** with **rare or genetic diseases**, their **families**, **friends**, **care providers** and wider communities
- **Contact information** for telephone and email queries

[3]https://rarediseases.info.nih.gov

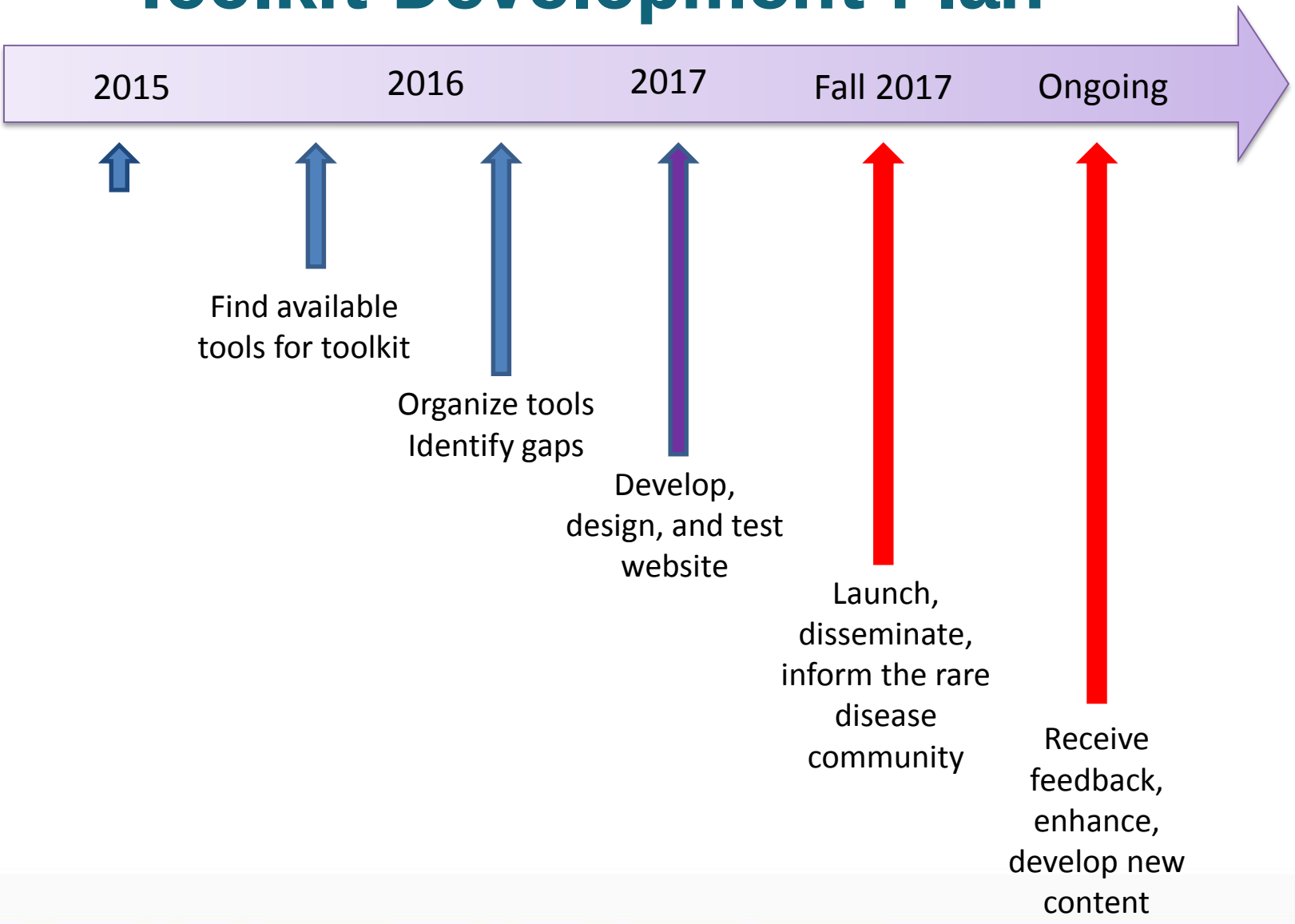
# Scientific Conferences

- Manages a committee to identify scientific opportunities for rare and common diseases and evaluates meeting applications
- NCATS funded/co-funded ~40 scientific conferences, meetings and workshops in 2016
  - Variety of topics, including rare diseases
  - Some areas included (among others)
    - Rare neuromuscular disorders
    - Pediatric tumors
    - Rare disease clinical research

# NCATS Toolkit for Patient Focused Drug Development

- Patient Advocacy Group–initiated project
  - Aims to provide an overview of online resources available to patient groups wishing to engage with the translational research process
  - Collection of educational and informational tools that have been developed in the rare disease community
  - Single portal with resources for patient groups that are:
    - Usable
    - Accessible
    - Practical

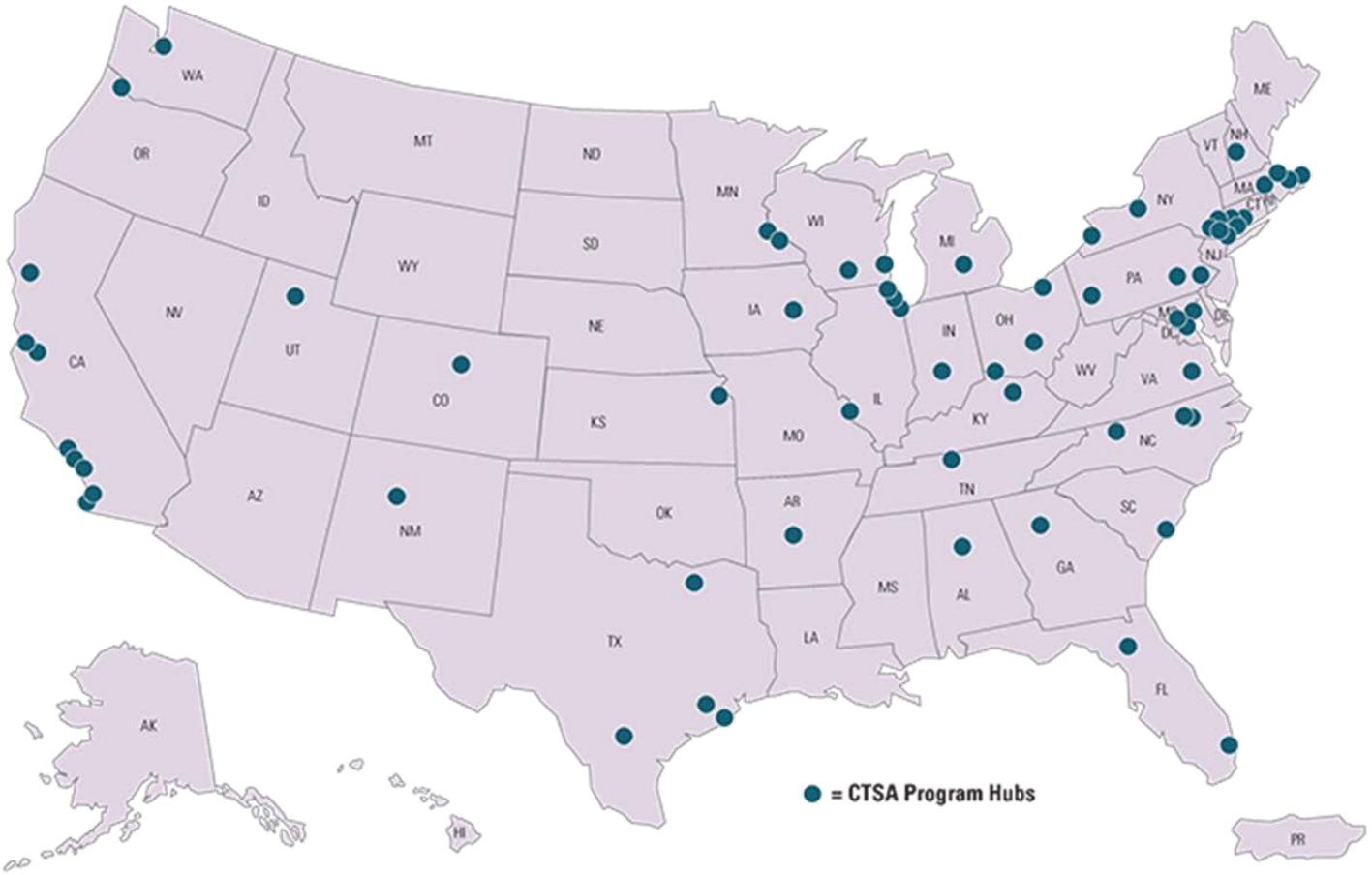
# Toolkit Development Plan



# Division of Clinical Innovation (DCI)

- DCI plans, conducts and supports research across the clinical phases of the translational science spectrum
- Supports training programs relevant to clinical phases of translational science.

# Clinical and Translational Science Awards (CTSA) Program



# CTSA Program[4]

- The CTSA program supports a national network of medical research institutions, called hubs
  - work together to improve the translational research process to get more treatments to more patients more quickly
  - The hubs collaborate locally and regionally to catalyze innovation in training, research tools and processes

Boston University, Case Western Reserve University, Children's Research Institute, Columbia University, Cornell University, Dartmouth College, Duke University, Einstein-Montefiore, Emory University, Georgetown-Howard Universities, Harvard University, Icahn School of Medicine at Mount Sinai, Indiana University, Johns Hopkins University, Mayo Clinic, Medical College of Wisconsin, Medical University of South Carolina, New York University, Northwestern University, Ohio State University, Oregon Health & Science University, Pennsylvania State University, Rockefeller University, Scripps Research Institute, Stanford University, Tufts University, University at Buffalo, State University of New York, University of Alabama at Birmingham, University of California - Davis, University of California - Irvine, University of California - Los Angeles, University of California - San Diego, University of California - San Francisco, University of Chicago, University of Cincinnati, University of Colorado - Denver, University of Florida, University of Illinois at Chicago, University of Iowa, University of Kansas, University of Kentucky, University of Massachusetts, University of Miami, University of Michigan, University of Minnesota, University of New Mexico, University of North Carolina, University of Pennsylvania, University of Pittsburgh, University of Rochester, University of Southern California, University of Texas HSC at Houston, University of Texas HSC at San Antonio, University of Texas Medical Branch at Galveston, University of Texas Southwestern, University of Utah, University of Washington, University of Wisconsin - Madison, Vanderbilt University Medical Center, Virginia Commonwealth University, Wake Forest University, Washington University in St. Louis, Yale University

[4]https://ncats.nih.gov/ctsa/about

# Division of Preclinical Innovation

- DPI plans, conducts and uses both internal and contract resources to advance collaborative research projects across the pre-clinical phases of the translational science spectrum
- Therapeutics for Rare and Neglected Diseases (TRND)[5]
  - Supports pre-clinical development of therapeutic candidates intended to treat rare or neglected disorders
- Bridging Interventional Development Gaps (BrIDGs)[6]
  - Mainly assists with late pre-clinical development to toward an IND application

[5]https://ncats.nih.gov/trnd/about

[6]https://ncats.nih.gov/bridgs/about

# Partnering for Success

# PCORI Advisory Panel on Rare Disease In-person Meeting

## RARE DISEASES CLINICAL RESEARCH NETWORK (RDCRN) PROGRAM

APRIL 26TH, 2017
1919 M STREET, WASHINGTON DC

**RASHMI GOPAL-SRIVASTAVA, PH.D.**
**DIRECTOR, EXTRAMURAL RESEARCH PROGRAM**
***(PROGRAM DIRECTOR, RDCRN)***
**OFFICE OF RARE DISEASES RESEARCH (ORDR)**

NCATS

NIH National Center for Advancing Translational Sciences

# Challenges for Rare Diseases Research

- Disease often not well characterized or defined
- Rarity means:
  - Recruitment for trials is usually quite difficult
  - Study populations become widely dispersed
  - Few expert centers for diagnosis, management, and research
- Often little high-quality evidence available to guide treatment

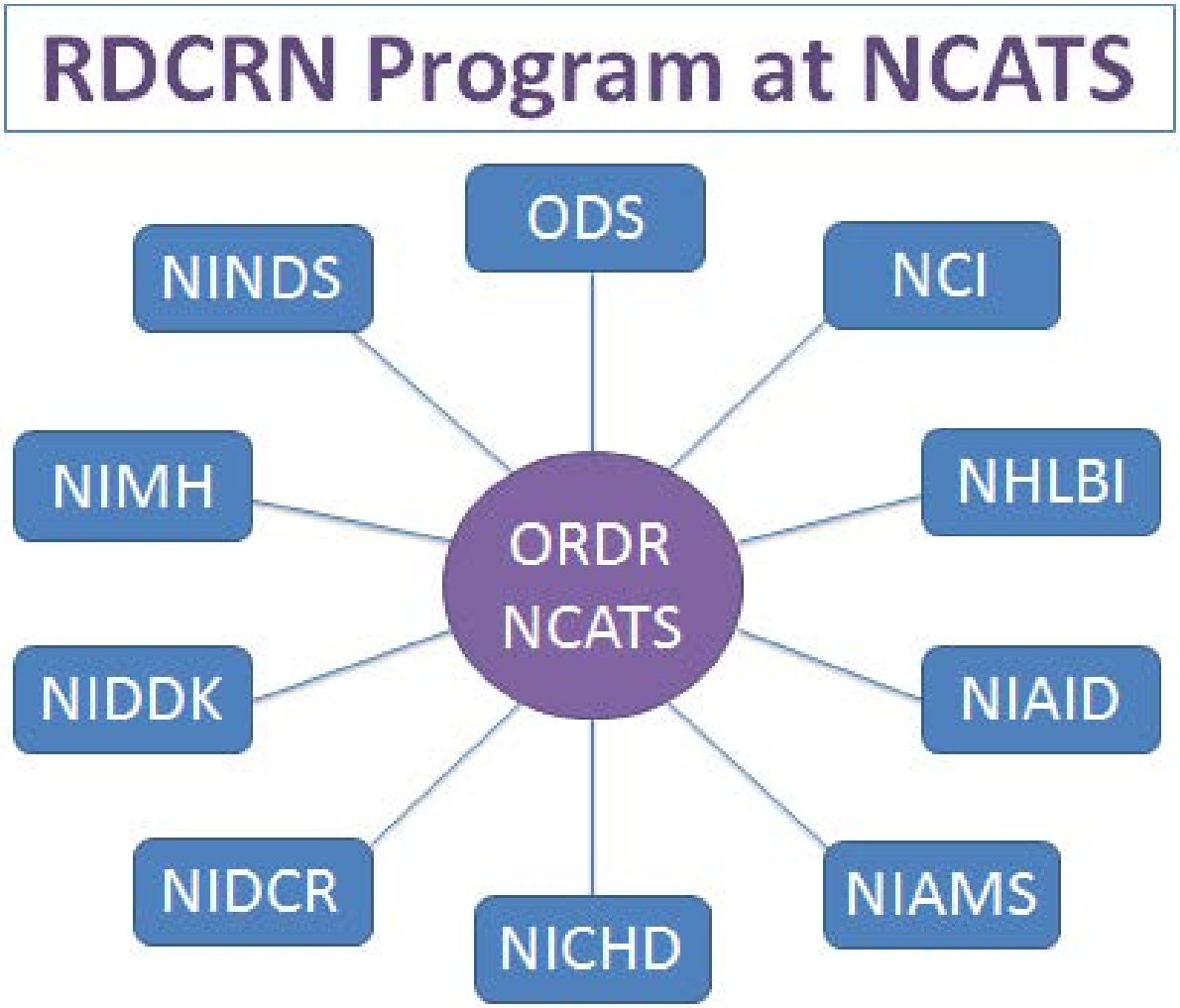
# Rare Clinical Diseases Research Network

Initiative of the National Center for Advancing Translational Sciences (NCATS)

# *Rare Diseases Clinical Research Network (RDCRN) Program:*

A Working Model for Collaboration and Partnership with Patients and Advocacy Groups to Facilitate Research Efforts

# Led by NCATS (ORDR), Collaboration with 10 NIH Institutes



# RDCRN Program: Background Information

- Established (in 2003 by ORDR) in response to a Request for Application (RFA). Ten consortia a central Data Management and Coordinating Center (DMCC)
- Expanded in 2009 to 17 consortia and a DMCC (Reissuance of RFA)
- Each RDCRN Consortium : multiple diseases/ investigators / sites, collaborative clinical research Involving Patient Advocacy Groups (PAGs) as research partners

# RDCRN Program: Background Information

- *These are cooperative agreement (U54) awards for 5 years*. Scientific collaborators (project scientists) from ORDR, NCATS and NIH Institutes/Centers (ICs)
- Each awardee (Consortium) receives no more than $1.25 M Total Cost/year for multi site studies
- RDCRN 3rd cycle (Renewed – 2014), an ORDR, NCATS Initiative

  22 distinct multi-site Consortia and a DMCC

  A Network of Networks!

# Goals of the RDCRN Program

- Facilitate clinical research by:
  - Creating multi-site Consortia focused on a group of at least three related diseases
  - Making meaningful large-scale clinical studies possible
    - Longitudinal studies (Natural History Studies are required, Clinical Trials are allowed)
    - Establishing uniform protocols for data collection
    - Cost sharing infrastructure
- Collaborate with patients advocacy groups (as research partners), DMCC and NIH scientific staff
- Train new investigators
- Support Pilot Projects Program
- Provide Website resource for education and research in rare diseases

*Requirements*

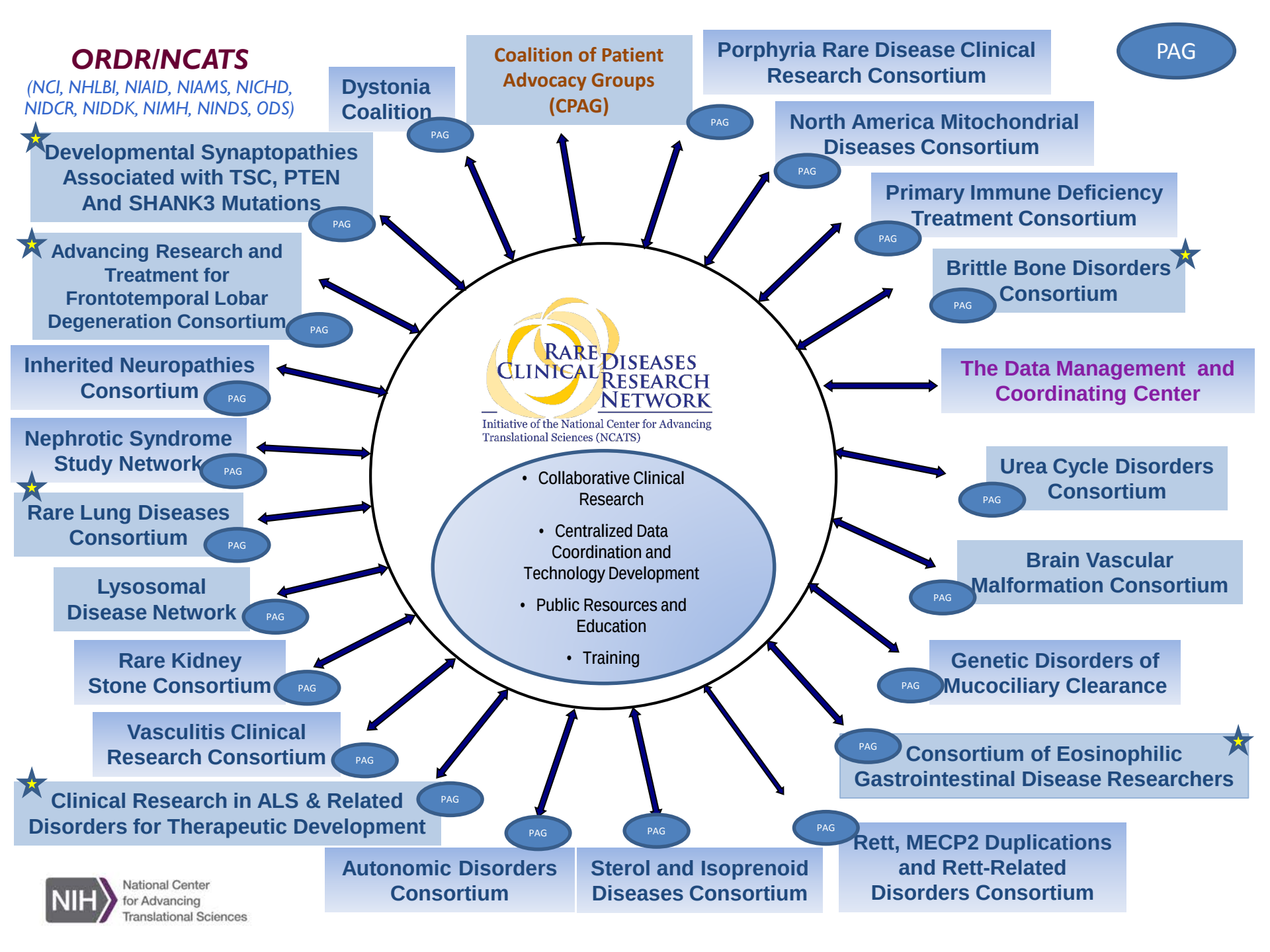
# About RDCRN Program

- Collectively, the RDCRN is studying 200 rare diseases in natural history and clinical trials at 418 active clinical sites located in the US and in 24 countries.
- There are more than 90 active protocols.
- 41,519 patients have enrolled in clinical studies.
- There have been 265 trainees.
- There are 3,545 collaborative consortium members.
- There are 144 PAGs as research partners, collectively formed a Coalition (RDCRN-CPAG).

http://rarediseasesnetwork.epi.usf.edu/

# RDCRN Program: Special Features

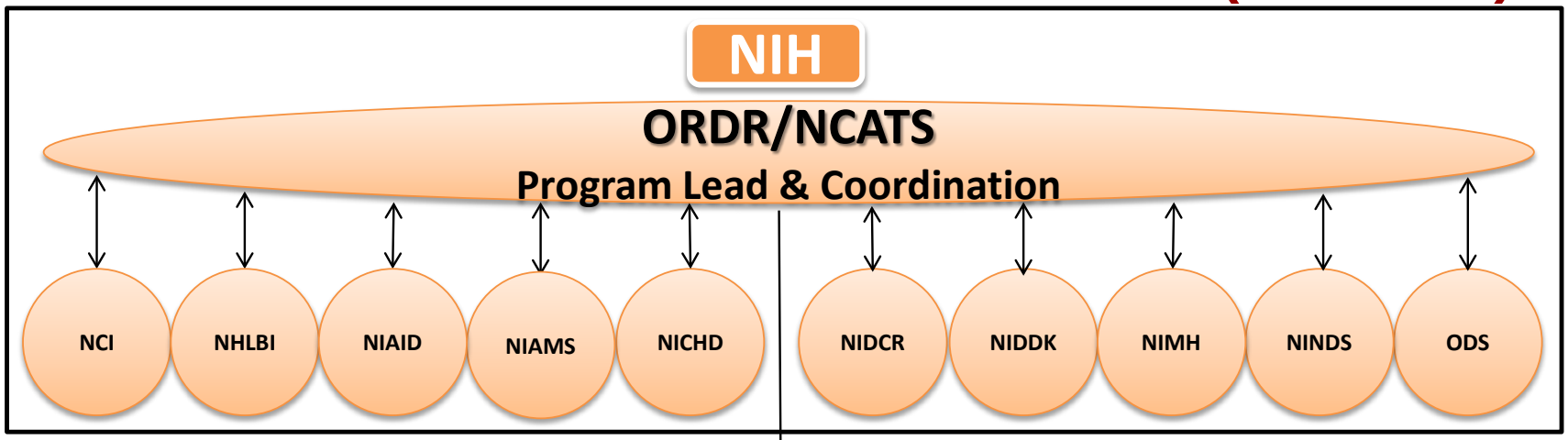
- *The RDCRN is unique in its approach to addressing* rare diseases as a group. Each consortium studies a group of *minimum three related rare diseases.*
- The direct involvement of PAGs as research partners *is a major feature and requirement of this network*.
- NCATS (ORDR program)—Collaboration with 10 NIH ICs
  - Cooperative Agreement Awards managed by collaborating NIH IC (*culture change*)


ORDR/NCATS
(NCI, NHLBI, NIAID, NIAMS, NICHD, NIDCR, NIDDK, NIMH, NINDS, ODS)
PAG
Coalition of Patient Advocacy Groups (CPAG)
Dystonia Coalition
Porphyria Rare Disease Clinical Research Consortium
North America Mitochondrial Diseases Consortium
Developmental Synaptopathies Associated with TSC, PTEN And SHANK3 Mutations
Primary Immune Deficiency Treatment Consortium
Advancing Research and Treatment for Frontotemporal Lobar Degeneration Consortium
Brittle Bone Disorders Consortium
Inherited Neuropathies Consortium
The Data Management and Coordinating Center
Nephrotic Syndrome Study Network
Urea Cycle Disorders Consortium
Rare Lung Diseases Consortium
Brain Vascular Malformation Consortium
Lysosomal Disease Network
Genetic Disorders of Mucociliary Clearance
Rare Kidney Stone Consortium
Vasculitis Clinical Research Consortium
Consortium of Eosinophilic Gastrointestinal Disease Researchers
Clinical Research in ALS & Related Disorders for Therapeutic Development
Autonomic Disorders Consortium
Sterol and Isoprenoid Diseases Consortium
Rett, MECP2 Duplications and Rett-Related Disorders Consortium
RARE CLINICAL DISEASES RESEARCH NETWORK
Initiative of the National Center for Advancing Translational Sciences (NCATS)
• Collaborative Clinical Research
• Centralized Data Coordination and Technology Development
• Public Resources and Education
• Training
NIH National Center for Advancing Translational Sciences

# RDCRN Protocols

| Type of Study | Number of Protocols |
|---|---|
| Pilot | 23 |
| Longitudinal | 91 |
| Phase I | 6 |
| Phase II | 18 |
| Phase III | 3 |
| Cross Sectional | 7 |
| Industry Collaboration | 12 |
| Case Control | 6 |
| Chart Review | 4 |

# Rare Disease Clinical Research Network 3 (RDCRN 3)




**Steering Committee** ← **RDCRN Consortia, DMCC and PAGs** → **OSMBs / DSMBs**

| | | | |
|---|---|---|---|
| Urea Cycle Disorders Consortium | Dystonia Coalition | Vasculitis Clinical Research Consortium | Developmental Synatopathies Associated with TSC, PTEN and SHANK3 Mutations |
| Clinical Research in ALS & Related Disorders for Therapeutic Development | Genetic Disorder of Mucociliary Clearance | Rare Kidney Stone Consortium | Inherited Neuropathies Consortium |
| The Frontotemporal Lobar Degeneration Clinical Research Consortium | Nephrotic Syndrome Study Network | Rett, MECP2 Duplications, and Rett-Related Disorders Consortium | Rare Lung Diseases Consortium |
| Primary Immune Deficiency Treatment Consortium | Brain Vascular Malformation Consortium | Sterol and Isoprenoid Diseases Consortium | Lysosomal Disease Network |
| Porphyria Rare Disease Clinical Research Consortium | Brittle Bone Disorders Consortium | Autonomic Disorders Consortium | DMCC |
| North American Mitochondrial Diseases Consortium | Chronic Graft Versus Host Disease | Consortium of Eosinophilic Gastrointestinal Disease Researchers | PAGs (CPAG) |

NIH National Center for Advancing Translational Sciences

# (RDCRN-CPAG)

*A unique feature of the RDCRN is the **direct engagement** of the rare disease patient community through **PAGs working as research partners with individual consortium** of RDCRN Program, and collectively as the Coalition Patient Advocacy Groups (CPAG) comprised of all PAGs of RDCRN Program*.

The importance of PAGs looking on the issues not just specific to their diseases of interest but across rare diseases.

# Value of PAGs as Research Partners

*Since 2004 PAGs within RDCRN are involved in more than one of the following roles as research partners-*

- Recruit patients for clinical studies, encourage participation in NHS
- Identify cohorts of patients with range of phenotypic expression
- Educate patients,  public, media and health care providers
- Identify research efforts and translate research results to communities

# Value of PAGs as Research Partners

- Organize and fund research based Scientific conferences and meetings for patients/families/caregivers
- Provide financial support for research and training programs of RDCRN (consortia) and patient registries
- Provide financial support for *travel clinics* to facilitate patient access to investigators and studies
- Establish global partnership

# RDCRN PAGs and Principal Investigators Manuscript

"The Partnership of Patient Advocacy Groups and Clinical Investigators in the Rare Diseases Clinical Research Network" has been published in Orphanet Journal of Rare Diseases.

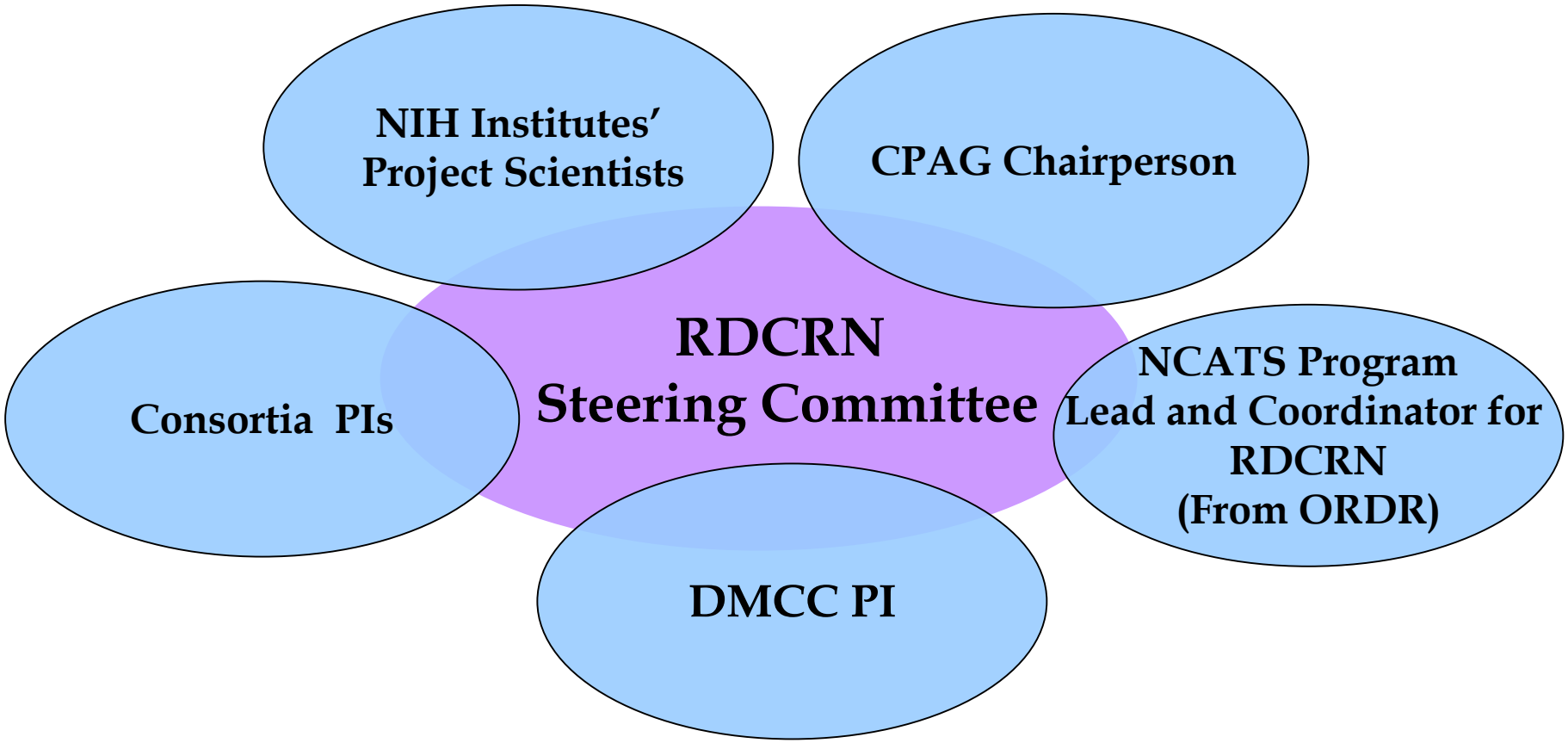
*Ojrd.biomedcentral.com (May 18th, 2016)*

# RDCRN International Sites

- Argentina
- Australia
- Austria
- Belgium
- Brazil
- Canada
- China
- Denmark
- England
- France
- Germany
- Iceland
- Ireland
- Israel
- Italy
- Japan
- Korea
- Mexico
- Netherlands
- Russia
- Scotland
- Spain
- Switzerland
- Turkey

# RDCRN Steering Committee Organization

***(Review, facilitate and establish all Network procedures and functions)***



# RDCRN-Data Management and Coordinating Center (DMCC)

- Supports RDCRN by providing technologies, tools to collect clinical research data and support for study design and data analysis
- On-line protocol management system
  - Web-based patient enrollment (recruitment and referral)
  - Data entry and collection with data standards
  - Adverse event reporting
- Provides protocol training for research staff

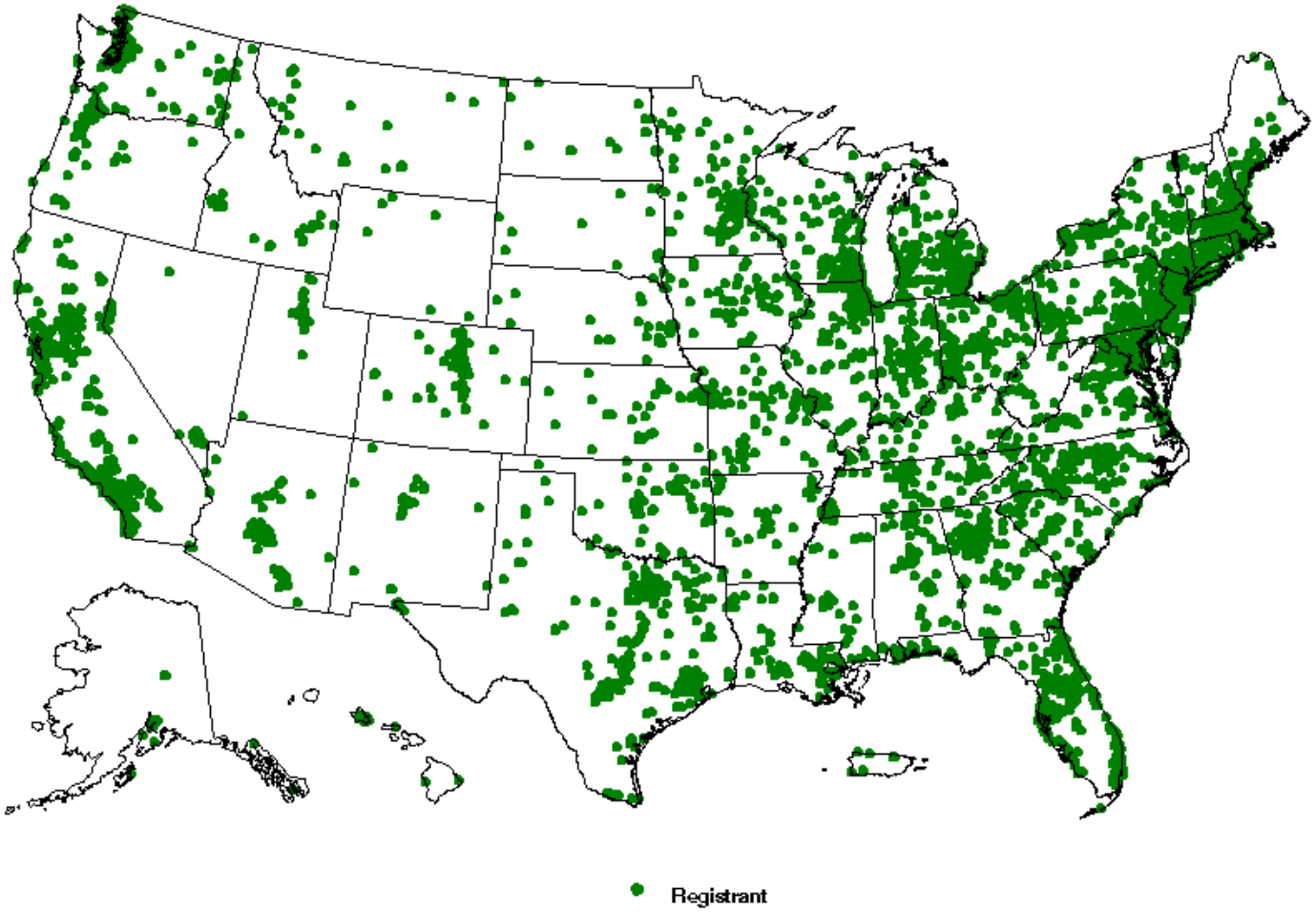
# Responsibilities of RDCRN-DMCC (Cont.)

- Works with the individual NIH Institutes' Data and Safety Monitoring Boards to establish protocols for Adverse Events notification and reporting
- Monitor Network protocol adherence, data collection and data submission
- Coordinates site visits for auditing individual consortia sites

# Responsibilities of RDCRN DMCC (Cont.)

- Provides a user-friendly web resource site for the public, research scientists, and clinicians; *involvement of PAGs* (>2 million hits/year)
- Maintain members' website, documentation and database
- *Oversees and maintains RDCRN Patient Contact Registry*

# RDCRN Contact Registry (2004)
## (U.S. Geographic Distribution of Contact Registrants)




-Enrollment open to patients with diseases under study by Consortia

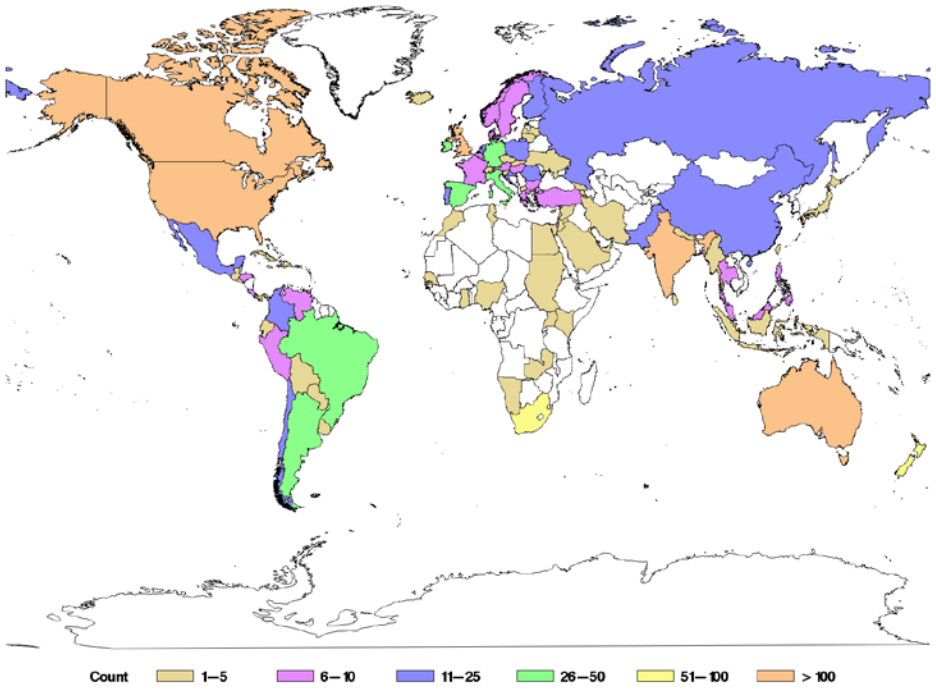
- Provides international on-line system for communication, recruitment, research

-

NIH National Center for Advancing Translational Sciences

# RDCRN Contact Registry Overview

Data as of March 24, 2017




- 179 diseases represented
- 124 countries
- 24,052 total registrations (633 since 1/1/17)
- 37% referred from PAGs
- 37% from internet
- 7% referred from med. prof.

Goals:
To inform registrants about RDCRN studies available;
To disseminate information about RDCRN activities

# Data Sharing
## (RDCRN Program's Data Repository)

- The RDCRN-DMCC also coordinates with ORDR program staff including registration with and data uploading of appropriate RDCRN studies to ORDR-governed data repository
- Through dbGaP, a database for genotypes and phenotypes (NCBI, National Library of Medicine)
- Data transfer to dbGaP occurs on regular basis
- RDCRN Data Access Committee (DAC) has been formed

# RDCRN Accomplishments

Data current as of March 24, 2017

| | 1st Grant Cycle 8/1/03-7/31/09 | 2nd Grant Cycle 8/1/09-7/31/14 | 3rd Grant Cycle 8/1/14- present | Total |
|---|---|---|---|---|
| Consortia | 10 | 17 | 22 | |
| Activated protocols | 38 | 99 | 58* (110 Active) | 195 |
| Participants enrolled on studies | 5,558 | 22,764 | 14,652 | 42,974 |
| Participants joined the RDCRN Contact Registry | 5,177 | 10,705 | 8,170 | 24,052 |
| Journal articles | 257 | 907 | 415 | 1,217 |
| Books and book chapters | 30 | 96 | 2 | 126 |
| Conference papers/proceedings | 120 | 307 | 20 | 268 |
| Trainees | 48^ | 160 | 97 | 208 |
| Protocols Audited/Monitored | 75 | 521 | 400 | 996 |
| | | | | |

*27 protocols pending implementation or in development

Active protocols = accruing and/or following participants

# An Example of Collaboration/Scientific Advancements: The Urea Cycle Disorders Consortia at Children's National Medical Center

- 19 Academic Research Centers in USA and 2 International Sites
- Collaborators With European Registry And Network For Intoxication Type Metabolic Disorders (EIMD)
- Industry Partnerships - *3 Products Approved*
  - Ucyclyd Pharma: Ammonul
  - Recordati: Carbaglu
  - Hyperion: Ravicti
- Patient Advocacy Group – The National Urea Cycle Disorders Foundation
- Foundations - O'Malley Family Foundation, Kettering Fund, Rotenberg Family Foundation, and Dietmar-Hopp Foundation
- ORDR/NCATS and NICHD (from NIH), providing support and scientific collaboration

# **Another Example:** RDCRN-Rare Lung Diseases Consortium (RLDC)

- In early 2015 FDA accepted for priority review a supplemental New Drug Application for (sNDA) RAPAMUNE® for the treatment of lymphangioleiomyomatosis (LAM)
- LAM is a rare, progressive lung disease that primarily affects women of childbearing age that is often fatal. (March/2015 FDA approval)
- *This is the first drug approved for the treatment of LAM!*
- This is an accomplishment of the Multicenter International LAM Efficacy and Safety of Sirolimus (MILES) Trial (conducted by Dr. Francis McCormack of RDCRN RLDC in collaboration with LAM Foundation). The sNDA was based on results from the MILES Trial. (Wyeth)
  - *Collaborative effort!*

# Genetic Disorders of Mucociliary Clearance Consortium & Primary Ciliary Diskinesia (PCD) Foundation

- Diagnosis, monitoring, and treatment of primary ciliary dyskinesia: PCD foundation consensus recommendations based on state of the art review.
- Pediatric Pulmonology. September 29, 2015
- Shapiro AJ, Zariwala MA, Ferkol T, Davis SD, Sagel SD, Dell SD, Rosenfeld M, Olivier KN, Milla C, Daniel SJ, Kimple AJ, *Manion M*, Knowles MR, Leigh MW

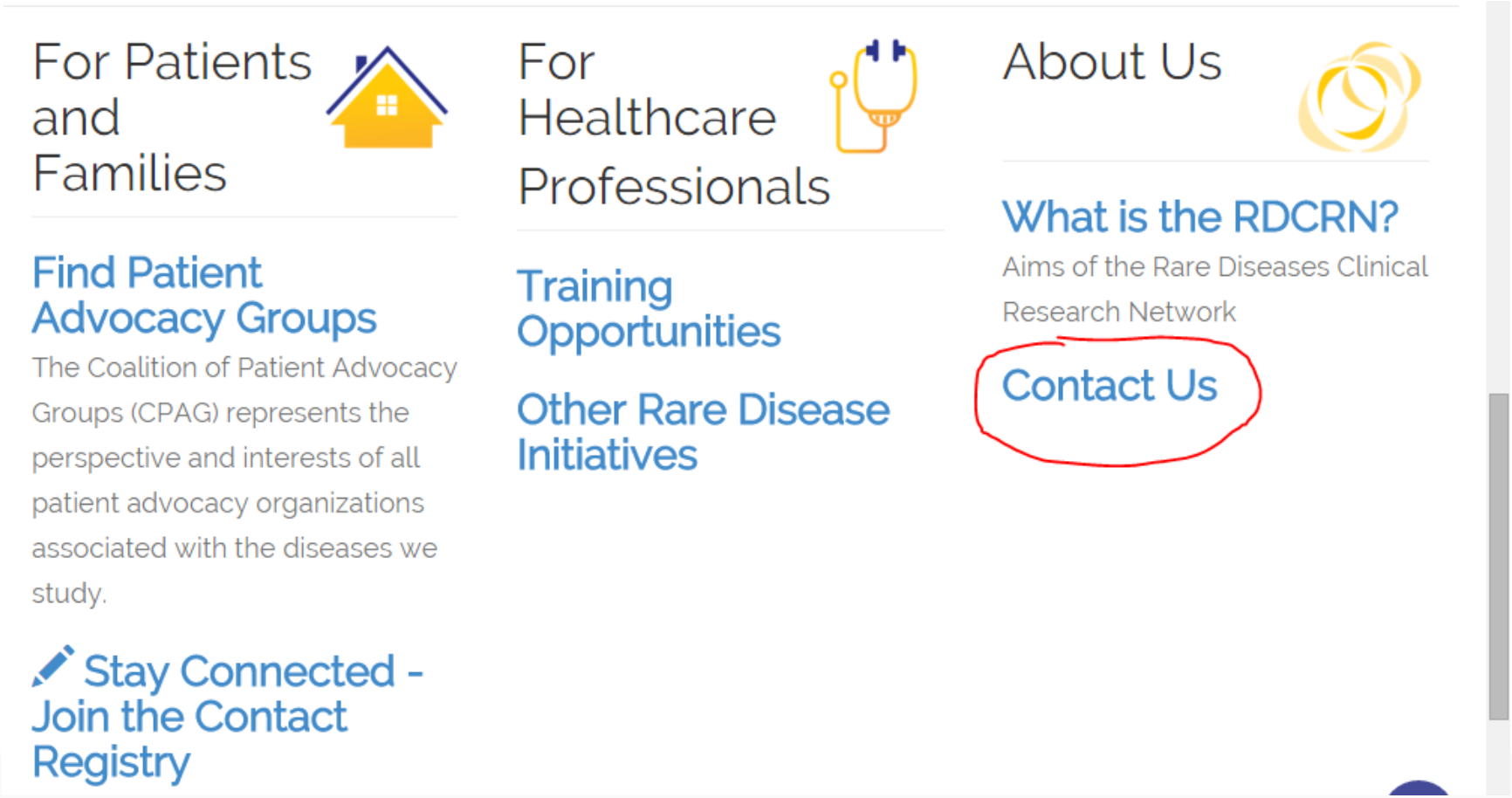
# Team Work!

- Clinical Sites
- Principal and co-investigators and the DMCC (multidisciplinary group)
- Trainees
- Study Coordinators
- *Patient Advocacy Groups (PAGs)*
- Pharmaceutical industry
- ORDR/NCATS and NIH Institutes staff (program officers and project scientists)
- *Patients*

**RDCRN: Working model for collaborative, multi-site clinical studies with PAGs partnership in an inexpensive way!**

**RDCRN consists of 418 sites, 144 PAGs and conducts research on more than 200 rare diseases**

# RDCRN Homepage



# Learn More About NCATS

**Website:** www.ncats.nih.gov

**Facebook:** facebook.com/ncats.nih.gov

**Twitter:** twitter.com/ncats_nih_gov

**YouTube:** youtube.com/user/ncatsmedia

**E-Newsletter:** ncats.nih.gov/news-and-events/e-news/e-news.html

**Email us!** info@ncats.nih.gov

NIH National Center for Advancing Translational Sciences

# Thanks for your attention!

**Contact**: gopalr@mail.nih.gov

Rashmi Gopal-Srivastava, Ph.D.
Director, Extramural Research Program
*(Program Director, RDCRN)*
Office of Rare Diseases Research (ORDR), NCATS

# Leveraging PCORnet

**Claudia Grossmann, PhD**
Program Officer, *Research Infrastructure*

**Maryan Zirkle, MD, MS, MA**
Program Officer, *Research Infrastructure*

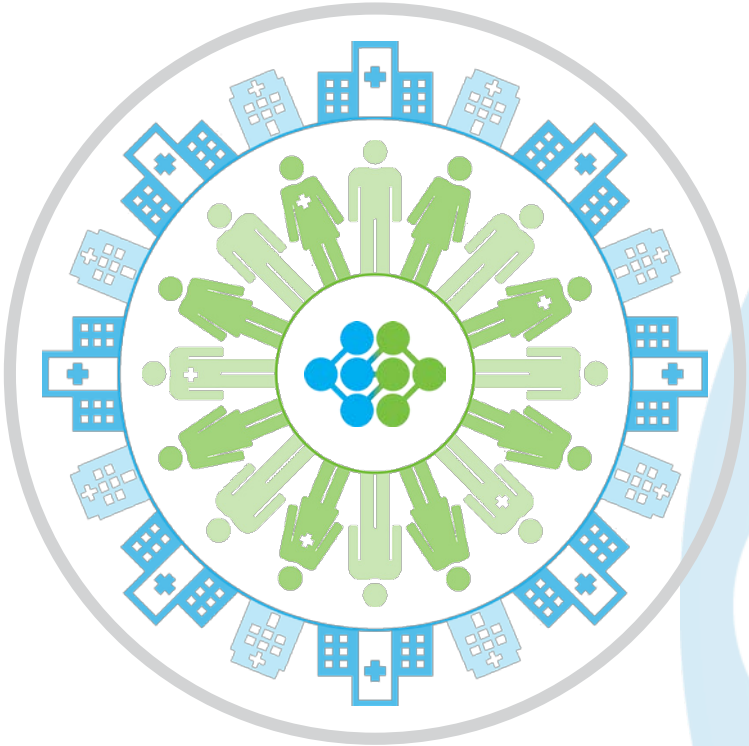
# Rare Disease in PCORnet

*Claudia Grossmann, PhD*
*Program Officer, Research Infrastructure*
*Patient Centered Outcomes Research Institute (PCORI)*

*Maryan Zirkle, MD, MS, MA*
*Program Officer, Research Infrastructure*
*Patient Centered Outcomes Research Institute (PCORI)*

pcornet℠ | The National Patient-Centered Clinical Research Network

# PCORnet® embodies a “network of networks” that harnesses the power of partnerships



20
Patient-Powered Research Networks (**PPRNs**)

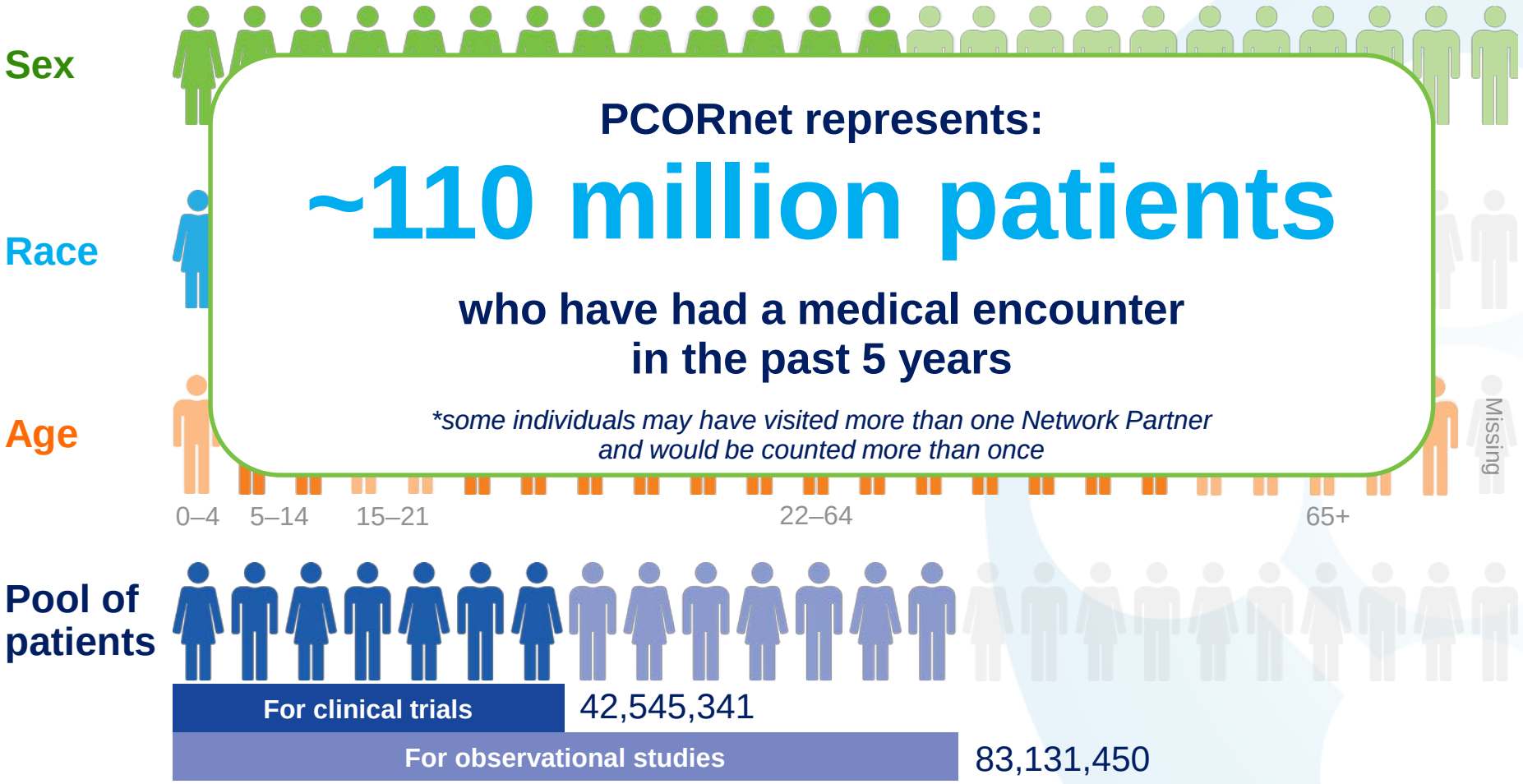
+

13
Clinical Data Research Networks (**CDRNs**)

=

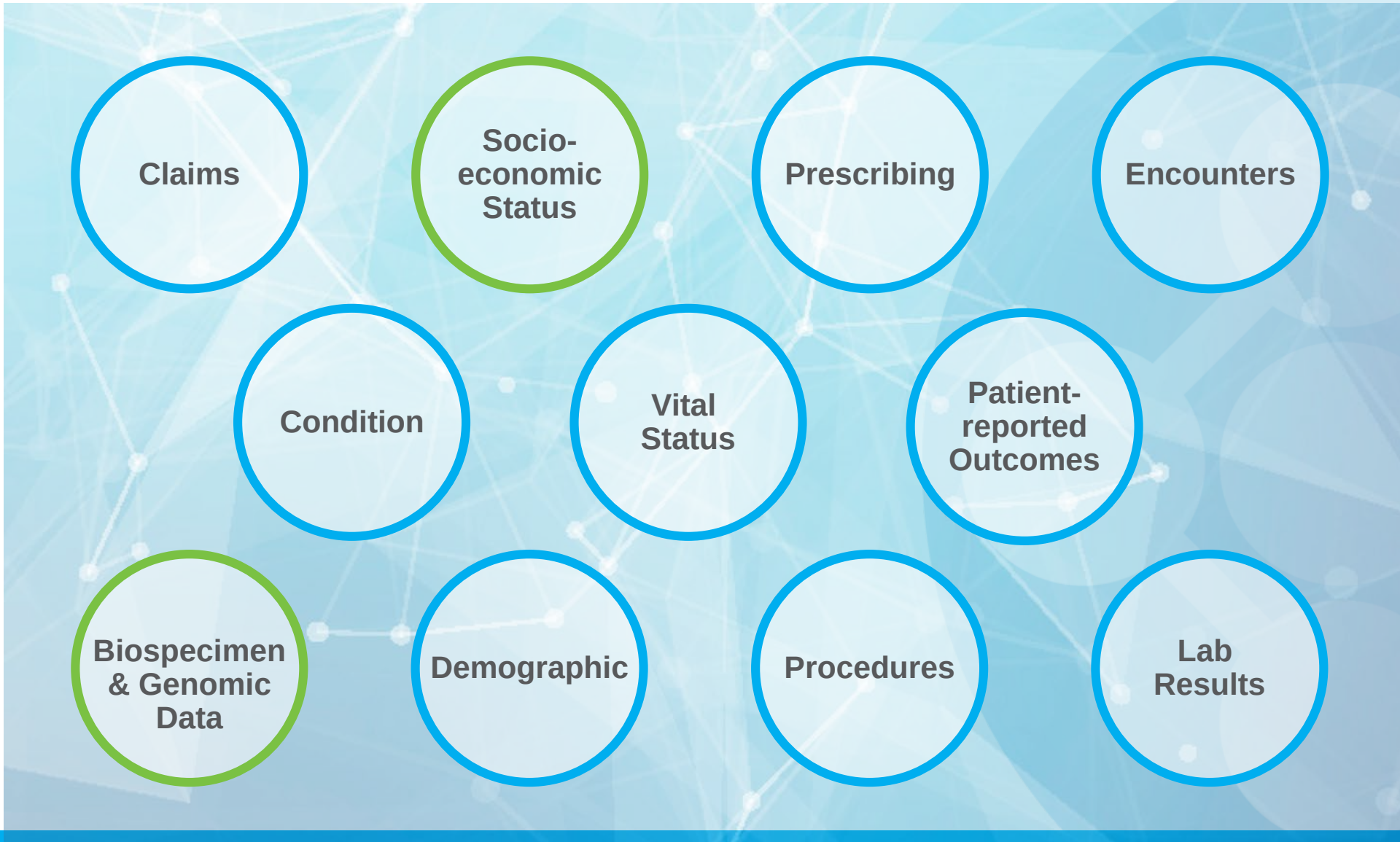
**PCORnet**
A national infrastructure for people-centered clinical research

# Resulting in a national evidence system with unparalleled research readiness




pcornet®

# The Common Data Model



# Clinical Data Research Networks

ADVANCE

Accelerating Data Value Across a National Community Health Center Network (ADVANCE)
Oregon Community Health Information Network (OCHIN)

CAPriCORN

Chicago Area Patient Centered Outcomes Research Network (CAPriCORN)
The Chicago Community Trust

GPC Greater Plains Collaborative

Greater Plains Collaborative (GPC)
University of Kansas Medical Center

PORTAL

Kaiser Permanente & Strategic Partners Patient Outcomes Research To Advance Learning (PORTAL) Network
Kaiser Foundation Research Institute

REACHnet Research Action for Health Network

Research Action for Health Network (REACHnet)
Louisiana Public Health Institute (LPHI)

mid-south clinical data research network

Mid-South CDRN
Vanderbilt University

pcornet®

PEDSnet A Pediatric Learning Health System

National PEDSnet: A Pediatric Learning Health System
The Children's Hospital of Philadelphia

NYC-CDRN New York City Clinical Data Research Network

New York City Clinical Data Research Network (NYC-CDRN)
Weill Medical College of Cornell University

OneFlorida Clinical Research Consortium

OneFlorida Clinical Data Research Network
University of Florida

LEARN . STUDY . TRANSLATE . DISSEMINATE
LHSNet www.lhsnet.org

Patient-Centered Network of Learning Health Systems (LHSNet)
Mayo Clinic

pSCANNER

Patient-oriented SCAlable National Network for Effectiveness Research (pSCANNER)
University of California, San Diego (UCSD)

PaTH Network patient empowered research

PaTH: Towards a Learning Health System
University of Pittsburgh

SCILHS

Scalable Collaborative Infrastructure for a Learning Healthcare System (SCILHS)
Harvard University

# CDRN Rare Disease Cohorts

| CDRN | Rare Condition(s) | Patients in cohort available to be surveyed |
|---|---|---|
| ADVANCE | Alpha-1 antitrypsin | 170 |
| CAPriCORN | Sickle cell disease | 1,300 |
| | Recurrent *clostridium difficile* | 516 |
| GPC | ALS | 1,079 |
| LHSNet | Osteogenesis Imperfecta | 1,590 |
| Mid South | Sickle cell disease | 505 |
| NYC CDRN | Cystic fibrosis | 62 |
| OneFlorida | Duchenne muscular dystrophy | 160 |
| PaTH | Idiopathic pulmonary fibrosis | 1,056 |
| PORTAL | Congenital heart defect | 985 |
| pSCANNER | Kawasaki disease | 712 |
| REACHnet | Sickle cell disease | 5,016 |
| SCILHS | Pulmonary arterial hypertension | 1,430 |

pcornet®

# Patient-Powered Research Networks

American BRCA Outcomes and Utilization of Testing Patient-Powered Research Network (ABOUT Network)
University of South Florida

ARthritis patient Partnership with comparative Effectiveness Researchers (AR-PoWER PPRN)
Global Healthy Living Foundation

CCFA Partners Patient Powered Research Network
Crohn's and Colitis Foundation of America

Collaborative Patient-Centered Rare Epilepsy Network (REN)
Epilepsy Foundation

Community and Patient-Partnered Centers of Excellence for Behavioral Health
University of California Los Angeles

Community-Engaged Network for All (CENA)
Genetic Alliance, Inc.

COPD Patient Powered Research Network
COPD Foundation

DuchenneConnect Registry Network
Parent Project Muscular Dystrophy

Health eHeart Alliance
University of California, San Francisco (UCSF)

pcornet

ImproveCareNow: A Learning Health System for Children with Crohn's Disease and Ulcerative Colitis
Cincinnati Children's Hospital Medical Center

Interactive Autism Network
Kennedy Krieger Institute

Mood Patient-Powered Research Network
Massachusetts General Hospital

Multiple Sclerosis Patient-Powered Research Network
Accelerated Cure Project for Multiple Sclerosis

National Alzheimer's and Dementia Patient and Caregiver-Powered Research Network
Mayo Clinic

NephCure Kidney International
Arbor Research Collaborative for Health

Patients, Advocates and Rheumatology Teams Network for Research and Service (PARTNERS) Consortium
Duke University

Phelan-McDermid Syndrome Data Network
Phelan-McDermid Syndrome Foundation

PI Patient Research Connection: PI-CONNECT
Immune Deficiency Foundation

Population Research in Identity and Disparities for Equality Patient-Powered Research Network (PRIDEnet)
University of California San Francisco

Vasculitis Patient Powered Research Network
University of Pennsylvania

# Total PPRN Consented Participants

| Population Overview | Network Total* | % |
|---|---|---|
| Number of consented participants in network | **273,469** | 100% |
| **Age** | | |
| 17 years or younger | 36,204 | 0% |
| 18 to 44 years | 95,219 | 35% |
| 45 to 64 years | 85,734 | 31% |
| 65 years or older | 35,633 | 13% |
| No information | 20,294 | 7% |
| **Race/Origin*** | | |
| American Indian/Alaska Native | 2,435 | 1% |
| Asian | 8,565 | 3% |
| Native Hawaiian or other Pacific Islander | 514 | 0% |
| Black or African American | 9,652 | 4% |
| Hispanic or Latino | 18,718 | 7% |
| White | 192,792 | 70% |
| Mixed Race | 6,029 | 2% |
| Other | 35,713 | 13% |
| No information | 15,637 | 6% |
| **Sex assignment at birth** | | |
| Female | 140,602 | 51% |
| Male | 93,852 | 34% |
| Other | 50 | 0% |

*Excludes ImproveCareNow data

pcornet®

# Rare Disease Patient-Powered Research Networks

| | Consented |
|---|---|
| Collaborative Patient-Centered Rare Epilepsy Network (REN)<br>Epilepsy Foundation | 1,204 |
| Community-Engaged Network for All (CENA)<br>Genetic Alliance, Inc. | 4,904 |
| DuchenneConnect Registry Network<br>Parent Project Muscular Dystrophy | 3,789 |
| ImproveCareNow: A Learning Health System for Children with Crohn's Disease and Ulcerative Colitis<br>Cincinnati Children's Hospital Medical Center | Not available |
| NephCure Kidney International<br>Arbor Research Collaborative for Health | 667 |
| Patients, Advocates and Rheumatology Teams Network for Research and Service (PARTNERS) Consortium<br>Duke University | 14,489 |
| Phelan-McDermid Syndrome Data Network<br>Phelan-McDermid Syndrome Foundation | 337 |
| PI Patient Research Connection: PI-CONNECT<br>Immune Deficiency Foundation | 1,941 |
| Vasculitis Patient Powered Research Network<br>University of Pennsylvania | 1,818 |

# Rare Disease PPRN Consented Participants

| Population Overview | Network Total* | % |
|---|---|---|
| Number of consented participants in network | 29,149 | 100% |
| **Age** | | |
| 17 years or younger | 12,225 | 42% |
| 18 to 44 years | 9,458 | 33% |
| 45 to 64 years | 3,300 | 11% |
| 65 years or older | 1,016 | 4% |
| No information | 2,765 | 10% |
| **Race/Origin** | | |
| American Indian/Alaska Native | 247 | 1% |
| Asian | 1,029 | 4% |
| Native Hawaiian or other Pacific Islander | 81 | 0.3% |
| Black or African American | 1,227 | 4% |
| Hispanic or Latino | 2,521 | 9% |
| White | 20,479 | 70% |
| Mixed Race | 909 | 3% |
| Other | 1,029 | 4% |
| No information | 3,979 | 14% |
| **Sex assignment at birth** | | |
| Female | 15,721 | 54% |
| Male | 9,667 | 33% |
| No information | 3,702 | 13% |

*Excludes ImproveCareNow data

pcornet®

# A Front Door is OPEN…
# take your research to the next level


- Through PCORnet Front Door, we invite PCORnet researchers and other investigators, patient groups, healthcare organizations, clinicians or clinician groups, government and industry scientists, and sponsors to collaborate on important patient-centered clinical research studies.

- For general questions, contact us at frontdoor@pcornet.org

# The Front Door


- Front Door opened to the Network in October 2016
- Publically open as of April 10, 2017
- 65 total requests have been submitted through the Front Door
- Convening events throughout the year to key audiences to highlight the opportunities to utilize PCORnet

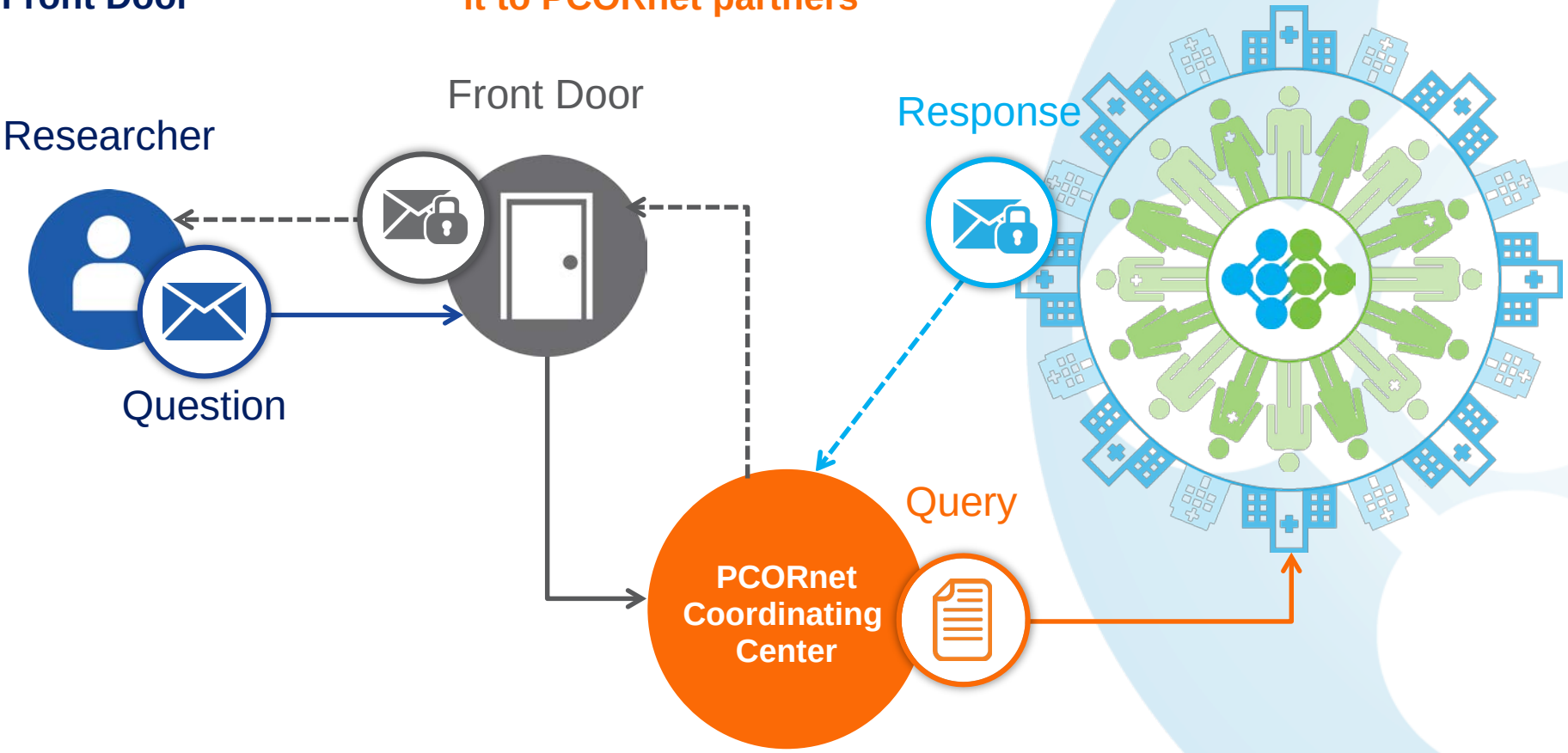
pcornet®

# Here's how the PCORnet® distributed research network works

**The Researcher sends a question to the PCORnet Coordinating Center through the Front Door**

**The Coordinating Center converts the question into a query with an underlying executable code, and sends it to PCORnet partners**

**PCORnet partners review the query and provide a response, which is sent back through the Front Door to the Researcher**



# You can use PCORnet for many kinds of research

## Pre-research

- Feasibility queries
- Engagement
- Match-making

## Interventional studies

- Clinical trials
- Pragmatic randomized clinical trials
  - e-Identification
  - e-Consent
  - e-Randomization
  - e-Follow-up
- Cluster randomization

## Observational studies

- Cross-sectional
- Epidemiology
- Health services
- Comparative effectiveness or safety

pcornet®

# Questions?

- Website: www.pcornet.org
- PCORnet Commons: http://pcornetcommons.org/
- Twitter: @PCORnetwork
- Email:
  - cgrossmann@pcori.org
  - mzirkle@pcori.org

pcornet®

# RDAP Discussion

- What synergies can be identified between the NCATS Consortia at NIH and PCORnet's PPRNs?
- In the context of the RDAP's previous Roadmap discussions, how can the toolkit, GARD, and GRDR be utilized to address/compliment the Roadmap concept?
- Are the PCORnet Front Door use cases of value to the rare disease community? Are there other considerations that should be addressed?
- How can NCATS and PCORnet work together to pilot the use cases for the PCORnet Front Door?
- What are the similarities and differences in the data captured between both programs (clinical vs. PROs)? How standardized is the data, and how standardized should it be?
- What are the potential gaps in either consortia?

# Break

**We will resume at 2:30 PM ET**

# Other Areas of Interest

**Parag Aggarwal, PhD**

Senior Program Officer, *Healthcare Delivery and Disparities Research*

# Rare Disease Advisory Panel Framework

## Vision

1. Increase quantity, quality, and timeliness of useful, trustworthy research information available to support health decisions related to rare diseases
2. Speed the implementation and use of patient-centered outcomes research evidence for rare diseases
3. Influence rare disease research funded by others to be more patient- centered

## Topics

1. Improving PCORI's engagement with the Rare Disease Community
2. Understanding how to leverage the rare disease cohorts in PCORnet
3. Defining research methods for conducting RD research and possible core outcome sets
4. Understanding what RD research projects PCORI has funded and how to disseminate the results of funded studies
5. Improving approaches for prioritizing rare disease research topics and identifying cross-cutting research questions

# Rare Disease Advisory Panel Framework cont.

| Activities | Outcomes |
| --- | --- |
| • Provide input to PCORI on specific issues and concerns in conducting research on rare diseases, ways to leverage PCORnet, approaches for evaluating PCORI's rare disease research portfolio, dissemination opportunities, and opportunities for collaborations with public and private sector entities<br>• Facilitate conversation with relevant stakeholders, including PCORnet and private and public entities, and initiate engagement activities (workshops, stakeholder meetings, etc.)<br>• Provide feedback on materials and documents generated by PCORI staff and other panel members related to the conduct of research in rare diseases<br>• Provide input on dissemination materials developed by PCORI staff and offer insight into possible dissemination outlets<br>• Identify cross-cutting topics of importance to the rare disease community to consider for landscape reviews/analyses, etc. (e.g. core outcomes, care transitions, research prioritization, etc.) | • Publications that can be posted to the PCORI website and/or submitted to a peer-review journal that details that current state of topics and identifies areas for further development<br>• Topic briefs based on the result of the landscape review or identification of<br>• Topics for potential targeted funding announcement development<br>• Roadmaps or one-pagers for use by the rare disease community |

# RDAP Discussion

- Which of these items discussed is of interest to the panel?
- What direction should the panel take in terms of its role in developing some of the outcomes presented?
- Outside of the items discussed today, what topics do you think would be beneficial for the RDAP to get involved in?

# Panelist Recognition

# Thank You!

- We would like to give a special thanks to those members whose terms end this year:
  - Marilyn Bull
  - Uday Deshmukh
  - Sindy Escobar Alvarez
  - Kate Lorig
  - Mark Skinner

# Panelist Recognition – Marilyn Bull

- Morris Green Professor of Pediatrics, Indiana University School of Medicine
- Represented: Clinicians
- Marilyn serves as the Medical Director for the Down Syndrome Program and is the pediatric consultant for the Cleft Palate Clinic and the Craniofacial Anomalies Team at the James Whitcomb Riley Hospital for Children at Indiana University Health
- Provided the panel with in-depth clinical expertise, especially in the area of pediatric rare diseases.
- Received an MD from University of Michigan Medical School
- Served as a member of the Advisory Panel on Rare Disease from April 2014 - April 2017

# Panelist Recognition – Uday Deshmukh

- Chief Medical Officer, HealthHelp
- Represented: Payers
- Uday was able to comment on issues discussed by the panel from the payer perspective and from his experience in the fields of medicine and health policy
- Received an MD from Delhi University and an MPH from Johns Hopkins Bloomberg School of Public Health.
- Served as a member of the Advisory Panel on Rare Disease from April 2014 - April 2017

# Panelist Recognition – Sindy Escobar-Alvarez

- Senior Program Officer for Medical Research, Doris Duke Charitable Foundation
- Represented: Researchers
- Sindy has contributed to the panel by providing expertise in the area of clinical research and research portfolio development.
- Completed doctoral and postdoctoral training in the Pharmacology Department at Cornell University Weill Graduate School and Sloan-Kettering Institute.
- Served as a member of the Advisory Panel on Rare Disease from April 2014 - April 2017

# Panelist Recognition – Kate Lorig

- Professor Emerita and Director of the Stanford Patient Education Research Center, Stanford University
- Represented: Patients, Caregivers and Patient Advocates
- Given Kate's personal experience with a rare disease and her expertise in the area of patient education, she has provided valuable feedback to the panel on a number of areas including engagement and outreach to the rare disease community and developing ideas of where the RDAP can advise PCORI.
- Received a BS in Nursing from Boston University and a DrPH from the University of California–Berkeley.
- Served as a member of the Advisory Panel on Rare Disease from April 2014 - April 2017

# Panelist Recognition – Mark Skinner

- President/CEO, Institute for Policy Advancement, Ltd.
- Represented: Patients, Caregivers, and Patient Advocates
- Mark has led both national and international patient organizations, including the World Federation of Hemophilia and National Hemophilia Foundation, where he currently serves on the Medical and Scientific Advisory Counsel.
- Given his first-hand experience with rare diseases and health policy, Mark brought a unique voice to the panel on a variety of issues from research methods to input on PCORI's rare disease research portfolio.
- Received degrees in Public and Business Administration from Kansas State University and a JD from Washburn University School of Law.
- Served as a member of the Advisory Panel on Rare Disease from April 2014 - April 2017

# Wrap Up and Next Steps

# Adjourn

**Thank you for your participation!**