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Rare Disease Clinical Outcome Assessment (COA) Consortium Update

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Executive Director, Rare Disease COA Consortium

Clinical Outcome Assessment Program Annual Meeting
April 16-17, 2026
Washington, DC

Rare Disease COA Consortium

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Founded in 2022

Membership

19 members

16 pharmaceutical firms

3 non-profits

Additional Participants

Representatives of governmental agencies (FDA, NIH, NIMH)

Rare Disease COA Consortium Members

RD-COAC Mission and Scientific Strategy

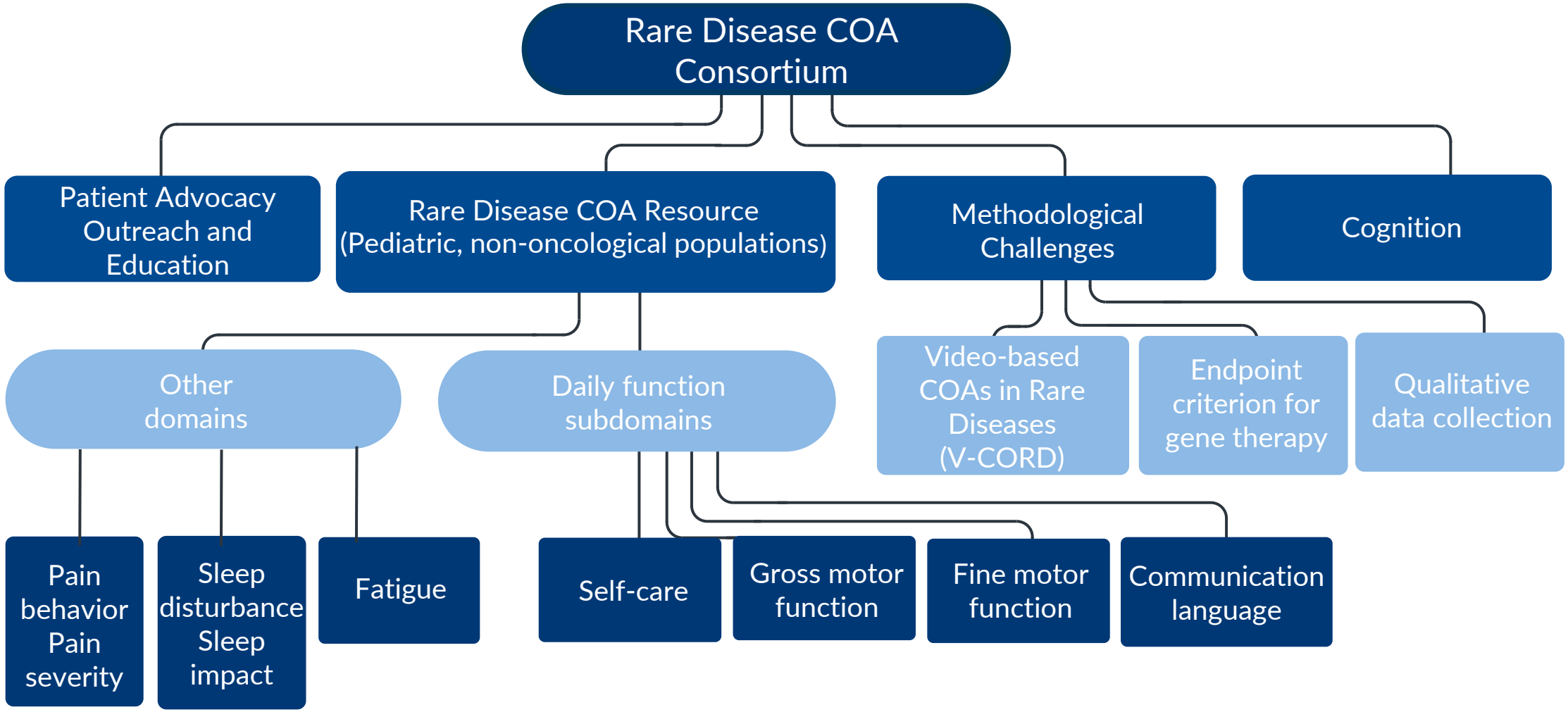
Mission

- To enable precompetitive, multi-stakeholder collaboration aimed at identifying scientifically sound tools and methodologies for collecting meaningful clinical outcomes data in treatment trials for rare diseases.

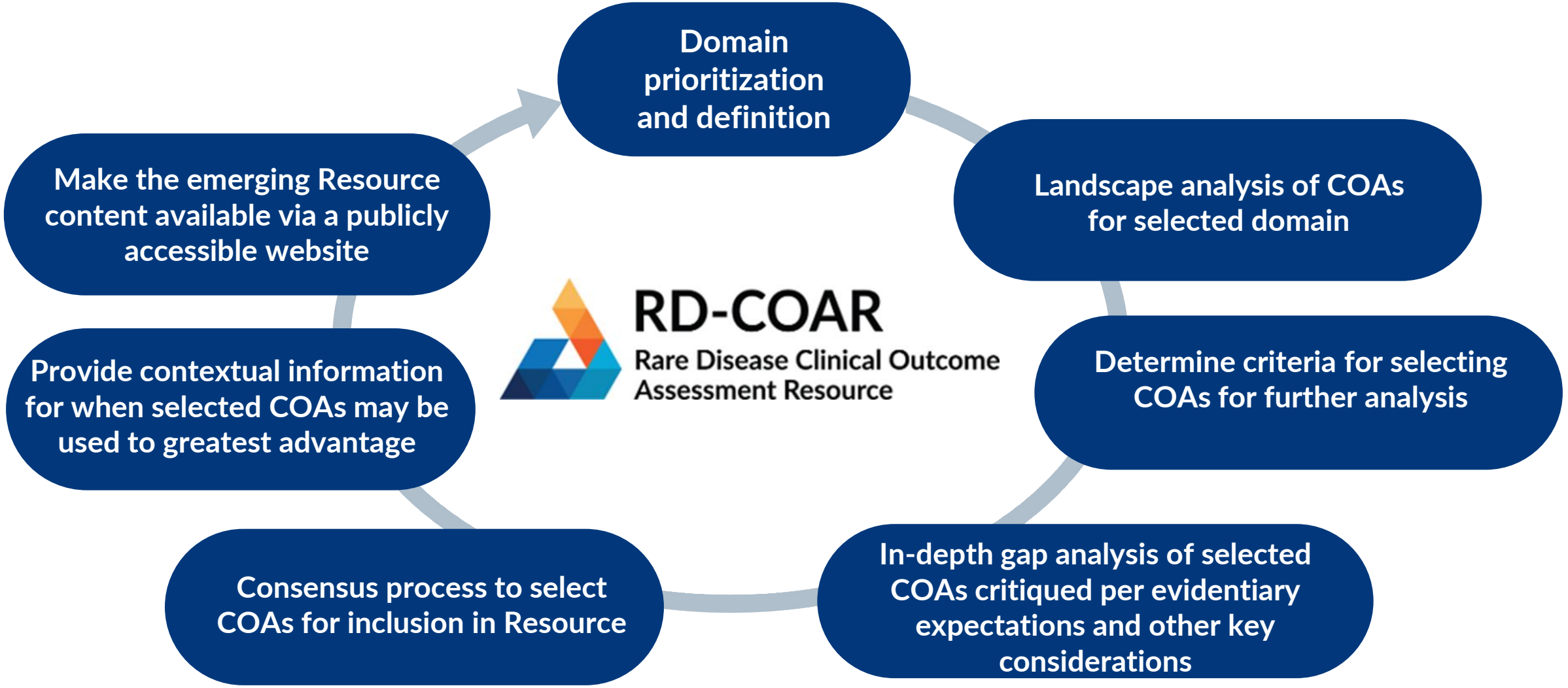
Scientific Strategy

- Establish and expand the Rare Disease Clinical Outcome Assessment (COA) Resource into new domains of published COAs that have the potential to be used to support efficacy endpoints in treatment trials for rare diseases;
- Promote collaboration and education, and share learnings among member firms and consortium members to expedite innovations in rare disease clinical trial science; and
- Advance solutions for methodological and measurement challenges in rare disease by engaging teams of experts focused on dissemination.

RD-COAC Work Structure



Executing on our Scientific Strategy: Rare Disease COA Resource



Currently focused on pediatric, non-oncologic patient populations

The Rare Disease COA Resource

RD-COAR
Rare Disease Clinical Outcome Assessment Resource

rdcoas.c-path.org

What the Resource can do:

- Reduce the considerable time and cost associated with identification of relevant COAs.
- Aid in appropriate COA selection for an individual research program by viewing evidence from the extensive gap analysis on each COA individually or in comparison across several tools in a domain.
- Inform patient advocacy groups of COAs available to measure outcomes of interest in patient registries and natural history studies.
- Inclusion of a measure in the Rare Disease COA Resource DOES NOT mean that a COA is fit for purpose.

Executing on our Scientific Strategy: Rare Disease COA Resource

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Domains Included in the Rare Disease COA Resource

Gross motor function

Fine motor function

Self-care

Communication/ Language

Sleep disturbance

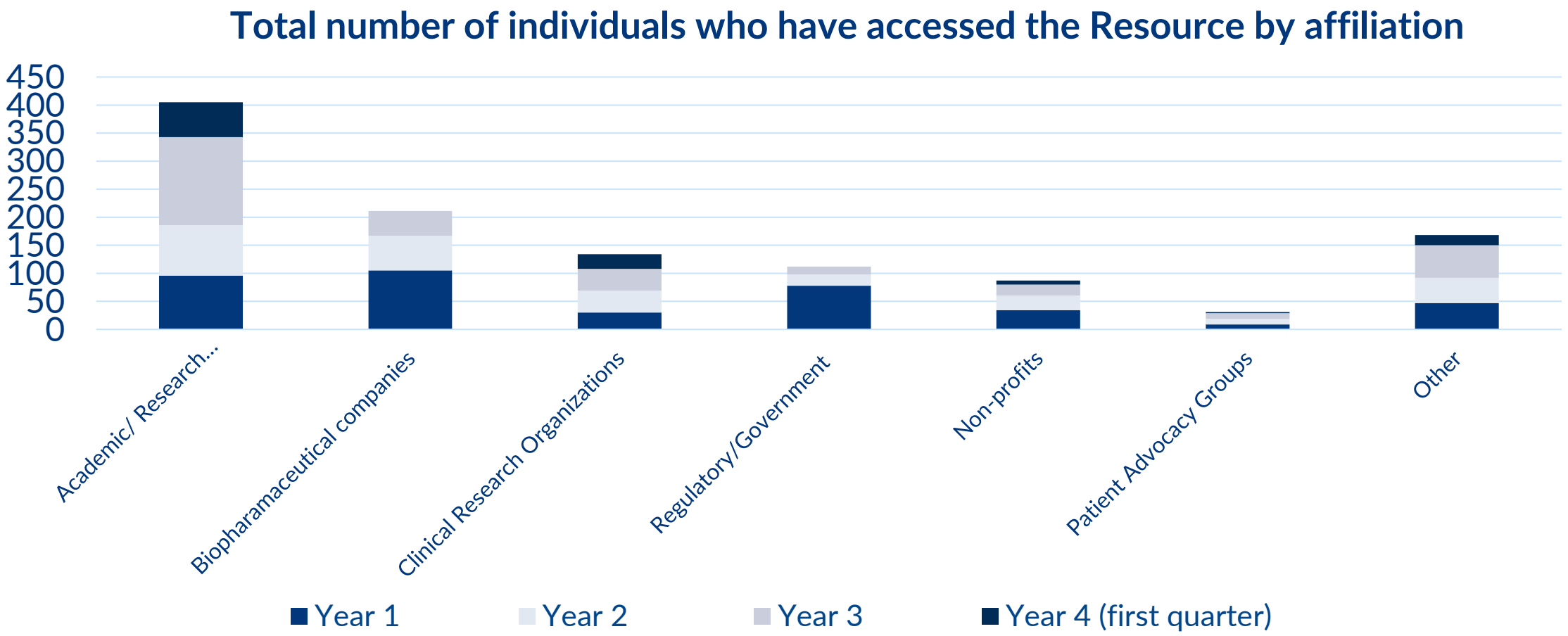
Sleep impact

Pain severity

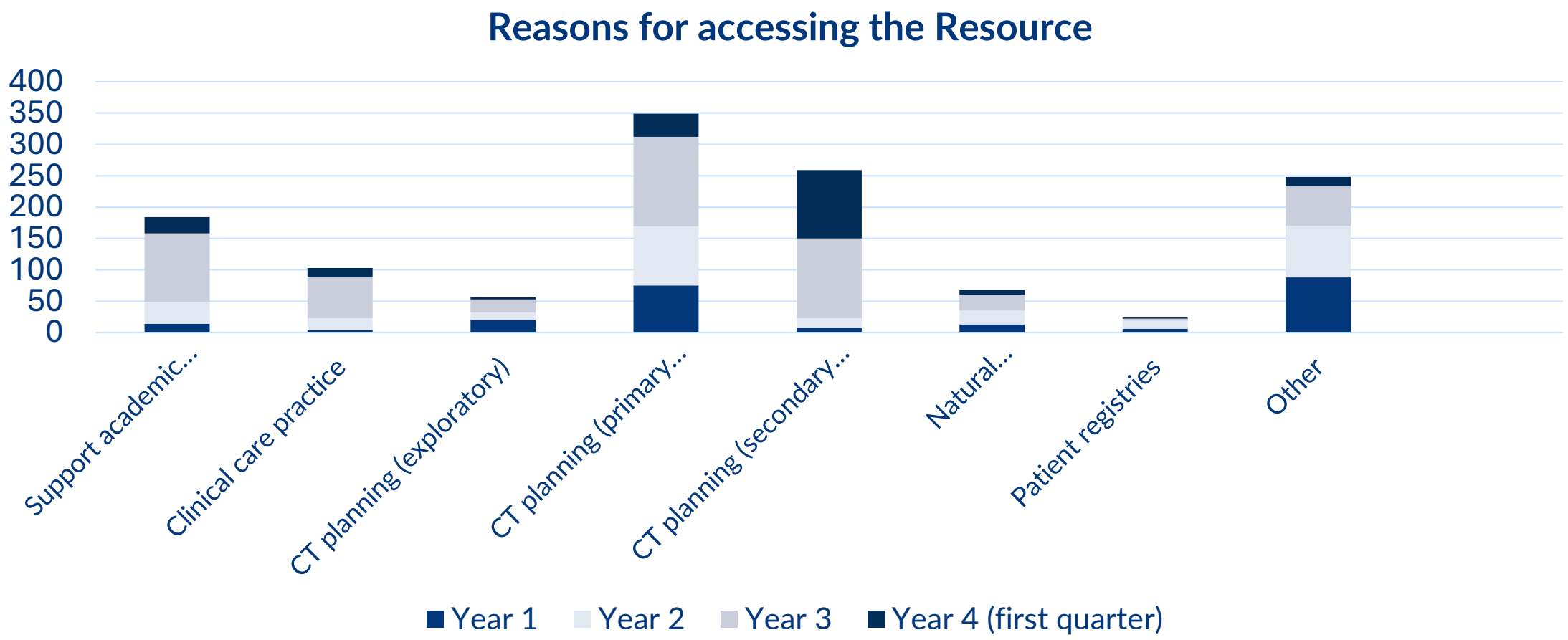
Pain behavior

Domain expansion in process: **fatigue**

Uptake of Rare Disease COA Resource



How the Resource is being used



Executing on our Scientific Strategy: Promote Collaboration and Education

Moderated Sessions	• Empowering Data – RE(ACT) Conference – March 2025
Featured Speaking Engagements	• "Approaches to the Assessment of Clinical Benefit of Treatments for Conditions That Have Heterogeneous Symptoms and Impacts: Potential Applications in Rare Disease" presented within a session on statistical methods for measuring multiple domains at the American Statistical Association Biopharmaceutical Section Regulatory-Industry Statistics Workshop in Rockville, MD, September 25, 2025. • "Ensuring a Focus on Patients in Pediatrics and Rare Disease Therapy Development" at the C-Path Global Impact Conference in Washington, DC, September 9, 2025.
Posters	• Rare Disease Clinical Outcome Assessment Consortium: 3 years of Rare Disease Measurement Achievements – DIA Global Annual Meeting – Washington DC – June 15-19, 2025 • Expansion of the Rare Disease Clinical Outcome Assessment (COA) Resource, a Tool to Aid in COA-derived Endpoint Selection - International Society for Quality of Life Research 32nd Annual Conference – Milwaukee, WI – October 22-25, 2025. Winner of 2025 Outstanding Poster Presentation Award.

Executing on our Scientific Strategy: Promote Collaboration and Education

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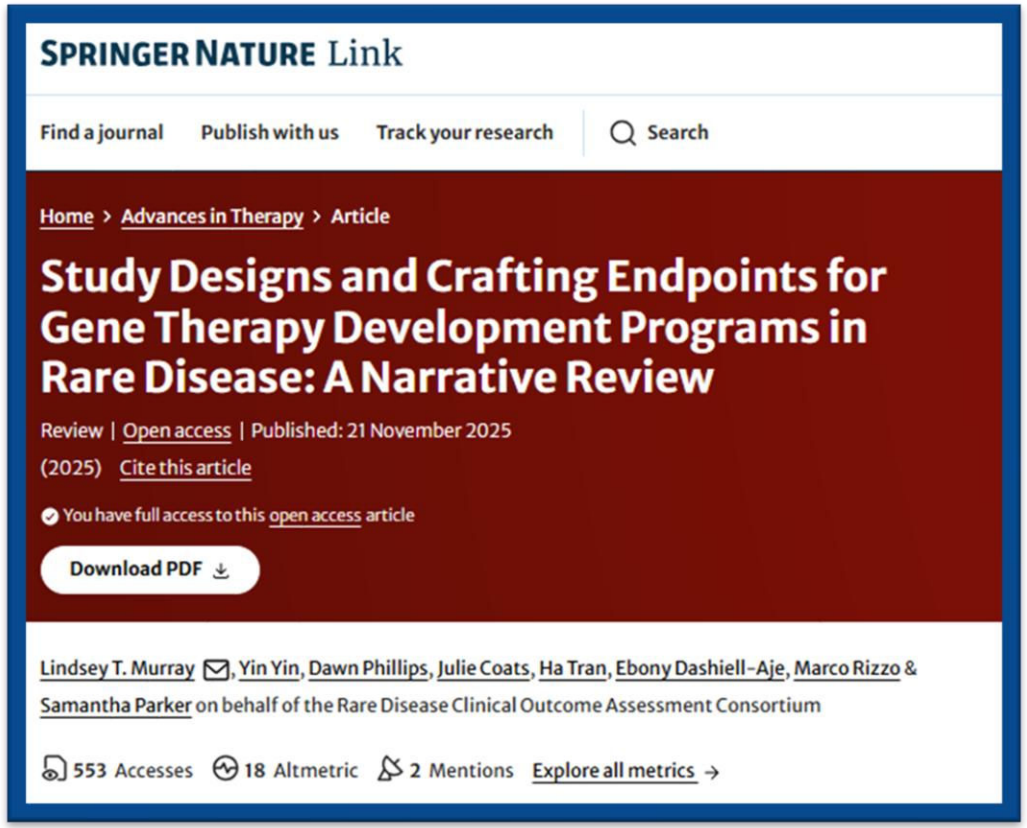
External collaborations, driving methodological innovation and shared insights:

- International Rare Diseases Research Consortium (IRDiRC) Interdisciplinary Scientific Committee
- International Society of Quality of Life Research (ISOQOL) Regulatory and Health Technology Assessment Engagement Special Interest Group
- ISOQOL Child Health Special Interest Group

Executing on our Scientific Strategy: Advancement of solutions for methodological and measurement challenges



Impact: This publication examined gene therapy approvals from FDA, EMA, and PMDA and extrapolated information related to study design, endpoint design, and long term follow up to highlight key considerations from these successful approvals and how those could potentially be applied in future trials.

https://link.springer.com/article/10.1007/s12325-025-03385-3

Executing on our Scientific Strategy: Advancement of solutions for methodological and measurement challenges

Video-based COAs in Rare Diseases (V-CORD)

- Cross-consortia collaboration with the Electronic Clinical Outcome Assessment Consortium (eCOAC)

Two manuscripts:

- "Video-based Clinical Outcome Assessments in Rare Disease Clinical Trials Part 1: Selection, Development, Modification and Migration Considerations"
- " Video-based Clinical Outcome Assessments in Rare Disease Clinical Trials Part 2: A Review of Operational Considerations"

Impact:

- Brings together expertise with rare disease COA experience and practical application experience from eCOA vendors and RD-COAC members to highlight the current best practices for using video to capture COA data in clinical trials.
- Highlights the importance and success of cross-consortia collaborations and opens the door to future joint projects with the eCOA Consortium and the Patient-Centered Evidence Consortium (PCEC).

Executing on our Scientific Strategy: Advancement of solutions for methodological and measurement challenges

Qualitative Data Collection Writing Teams

- **"Evaluating Treatments For Rare Disease: Opportunities for Evidence Generation based on Qualitative Research."**
- **Impact:** Captures the utility of leveraging qualitative data across the drug development life cycle and provides practical implementation suggestions for ensuring the qualitative data is collected rigorously to aid in regulatory decision making for rare disease medical product development programs.

- **"The use of qualitative research in regulatory decision-making: A review of new drug and biologics approvals from 2022-2025"**
- **Impact:** Highlights the importance of using qualitative data in regulatory submissions and includes case studies from both FDA and EMA to showcase how this data has been used in recent approvals to provide to support the concept of interest, justification for use of a specific COA, informing the endpoint definition, informing within-patient meaningful change thresholds, and benefit-risk decisions.

Executing on our Scientific Strategy: Advancement of solutions for methodological and measurement challenges

Pediatric Cognition Working Group (Launched April 2025)

- **Problem:** "Cognitive outcomes" for pediatric rare diseases conferring static and/or progressive intellectual impairment is extremely challenging.
- **Goal:** "Generate evidenced-based recommendations for the measurement, implementation, and endpoint strategy development for cognitive and related outcomes (e.g., neurodevelopmental, adaptive) in pediatric rare disease clinical trials for medical product development."
- **Current Focus:** Establish a shared, trial-relevant definitions of constructs most relevant to cognition and pediatric rare disease.
  - **Impact:** This working group will highlight the state of measurement now and identify gaps, with recommendations for how to improve the measurement of cognition in pediatric rare disease clinical trials.

Rare Disease COA Consortium Goals - 2026

Identify opportunities to increase member engagement

Identify opportunities to better support member programs and launch 1 new initiative in 2026

Identify new methodologic challenges

Promote the RD-COAC and RD-COAR

Utilize webinars, podcasts, social media campaigns

Explore collaboration with complementary consortia

Expand the Rare Disease COA Resource

Identify next domain(s) of interest

Take Home Messages

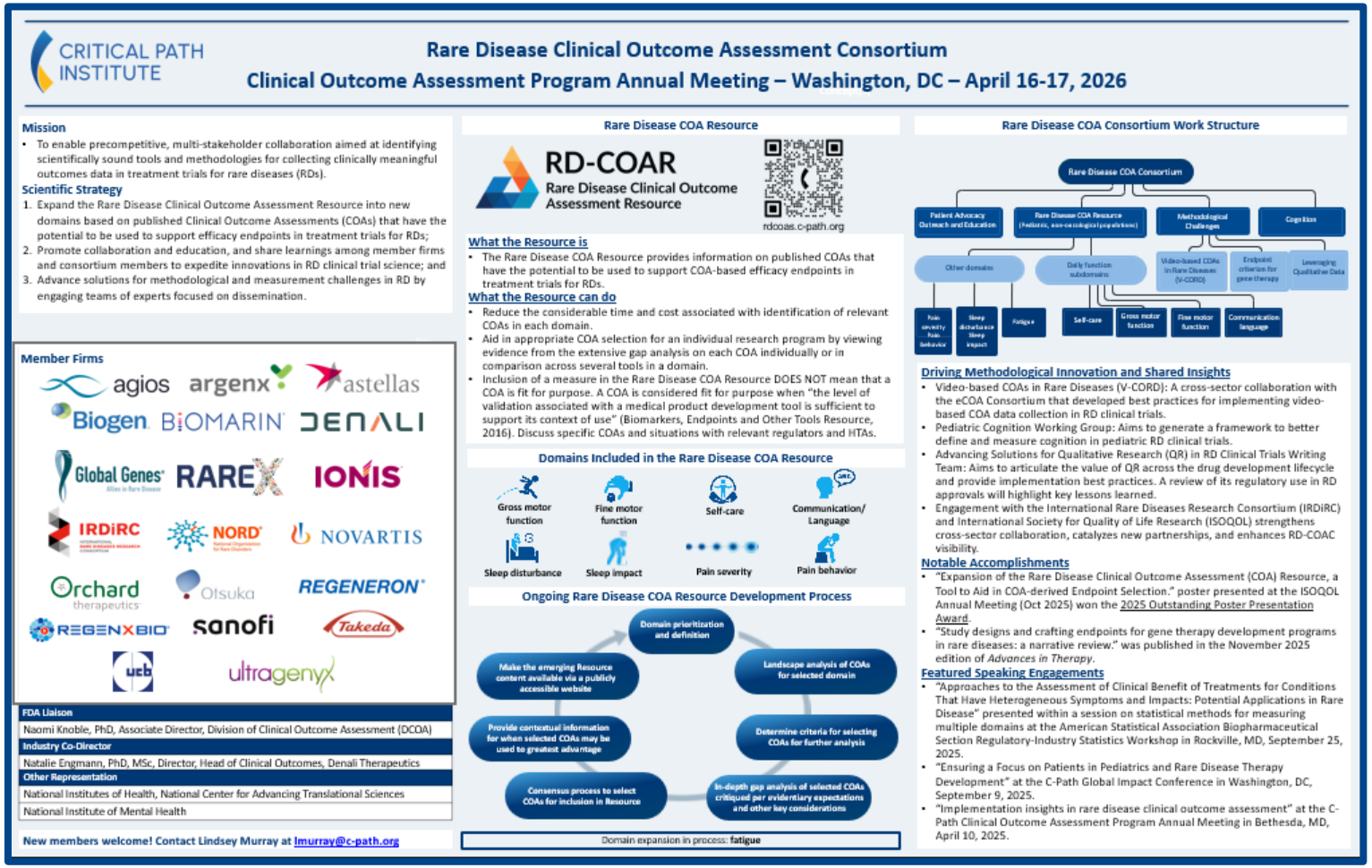
The Rare Disease COA Consortium

- Accelerates COA selection across rare disease programs.
- Provides opportunities to collaborate with key stakeholders across rare disease drug development.
- Advances solutions to key methodological challenges in rare disease trials.
- Driven by cross-industry collaboration.

Join us on the journey to achieve our goals for 2026 and beyond!

Poster:
RD-COAC activities

In CVENT meeting portal



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Rare Disease Clinical Outcome Assessment Consortium

Clinical Outcome Assessment Program Annual Meeting – Washington, DC – April 16-17, 2026

Mission

- To enable precompetitive, multi-stakeholder collaboration aimed at identifying scientifically sound tools and methodologies for collecting clinically meaningful outcomes data in treatment trials for rare diseases (RDs).

Scientific Strategy

1. Expand the Rare Disease Clinical Outcome Assessment Resource into new domains based on published Clinical Outcome Assessments (COAs) that have the potential to be used to support efficacy endpoints in treatment trials for RDs;
2. Promote collaboration and education, and share learnings among member firms and consortium members to expedite innovations in RD clinical trial science; and
3. Advance solutions for methodological and measurement challenges in RD by engaging teams of experts focused on dissemination.

Member Firms

agios, argenx, astellas, Biogen, BIOMARIN, DENALI, Global Genes, RARE-X, IONIS, IRDiRC, NORD, NOVARTIS, Orchard therapeutics, Otsuka, REGENERON, REGENXBIO, sanofi, Takeda, ucb, ultragenyx

FDA Liaison
Naomi Knoble, PhD, Associate Director, Division of Clinical Outcome Assessment (DCOA)
Industry Co-Director
Natalie Engmann, PhD, MSc, Director, Head of Clinical Outcomes, Denali Therapeutics
Other Representation
National Institutes of Health, National Center for Advancing Translational Sciences
National Institute of Mental Health

New members welcome! Contact Lindsey Murray at lmurray@c-path.org

Rare Disease COA Resource

RD-COAR
Rare Disease Clinical Outcome Assessment Resource

rdcoas.c-path.org

What the Resource is

- The Rare Disease COA Resource provides information on published COAs that have the potential to be used to support COA-based efficacy endpoints in treatment trials for RDs.

What the Resource can do

- Reduce the considerable time and cost associated with identification of relevant COAs in each domain.
- Aid in appropriate COA selection for an individual research program by viewing evidence from the extensive gap analysis on each COA individually or in comparison across several tools in a domain.
- Inclusion of a measure in the Rare Disease COA Resource DOES NOT mean that a COA is fit for purpose. A COA is considered fit for purpose when "the level of validation associated with a medical product development tool is sufficient to support its context of use" (Biomarkers, Endpoints and Other Tools Resource, 2016). Discuss specific COAs and situations with relevant regulators and HTAs.

Domains Included in the Rare Disease COA Resource

Gross motor function; Fine motor function; Self-care; Communication/ Language; Sleep disturbance; Sleep impact; Pain severity; Pain behavior

Ongoing Rare Disease COA Resource Development Process

Domain prioritization and definition → Landscape analysis of COAs for selected domain → Determine criteria for selecting COAs for further analysis → In-depth gap analysis of selected COAs critiqued per evidentiary expectations and other key considerations → Consensus process to select COAs for inclusion in Resource → Provide contextual information for when selected COAs may be used to greatest advantage → Make the emerging Resource content available via a publicly accessible website

Domain expansion in process: **fatigue**

Rare Disease COA Consortium Work Structure

Rare Disease COA Consortium

Patient Advocacy Outreach and Education; Rare Disease COA Resource (Pediatric, non-neurological populations); Methodological Challenges; Cognition

Other domains; Daily Function subdomains; Video-based COAs in Rare Diseases (V-CORD); Endpoint criterion for gene therapy; Leveraging Qualitative Data

Pain severity; Pain behavior; Sleep disturbance; Sleep impact; Fatigue; Self-care; Gross motor function; Fine motor function; Communication/ language

Driving Methodological Innovation and Shared Insights

- Video-based COAs in Rare Diseases (V-CORD): A cross-sector collaboration with the eCOA Consortium that developed best practices for implementing video-based COA data collection in RD clinical trials.
- Pediatric Cognition Working Group: Aims to generate a framework to better define and measure cognition in pediatric RD clinical trials.
- Advancing Solutions for Qualitative Research (QR) in RD Clinical Trials Writing Team: Aims to articulate the value of QR across the drug development lifecycle and provide implementation best practices. A review of its regulatory use in RD approvals will highlight key lessons learned.
- Engagement with the International Rare Diseases Research Consortium (IRDiRC) and International Society for Quality of Life Research (ISOQOL) strengthens cross-sector collaboration, catalyzes new partnerships, and enhances RD-COAC visibility.

Notable Accomplishments

- "Expansion of the Rare Disease Clinical Outcome Assessment (COA) Resource, a Tool to Aid in COA-derived Endpoint Selection." poster presented at the ISOQOL Annual Meeting (Oct 2025) won the 2025 Outstanding Poster Presentation Award.
- "Study designs and crafting endpoints for gene therapy development programs in rare diseases: a narrative review." was published in the November 2025 edition of *Advances in Therapy*.

Featured Speaking Engagements

- "Approaches to the Assessment of Clinical Benefit of Treatments for Conditions That Have Heterogeneous Symptoms and Impacts: Potential Applications in Rare Disease" presented within a session on statistical methods for measuring multiple domains at the American Statistical Association Biopharmaceutical Section Regulatory-Industry Statistics Workshop in Rockville, MD, September 25, 2025.
- "Ensuring a Focus on Patients in Pediatrics and Rare Disease Therapy Development" at the C-Path Global Impact Conference in Washington, DC, September 9, 2025.
- "Implementation insights in rare disease clinical outcome assessment" at the C-Path Clinical Outcome Assessment Program Annual Meeting in Bethesda, MD, April 10, 2025.

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for your support
and partnership!

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