

***RYR1*-related diseases: The patient perspective and patient participation**

Webinar March 19, 2025



Radboudumc

Overview

1. Trials in neuromuscular diseases (NMDs) – experiences of participants (Lizan Stinissen)
2. Patient involvement (Nicol Voermans, Brentney Simon)
3. Current survey (Lizan Stinissen)
4. Discussion / questions and answers (All)

Who are we?



Lizan Stinissen



Brentney Simon



Nicol Voermans

1. Trials in NMDs – experiences of participants

Background

Since 2014, trials in centronuclear myopathy:

- Natural history study in XLMTM (INCEPTUS)
- Gene transfer clinical study in XLMTM (ASPIRO)
- Early phase drug trial to investigate dynamin-101 (Unite-CNM)
 - Etc.

First results (effect and side effects)

Experiences of patients
(associations)

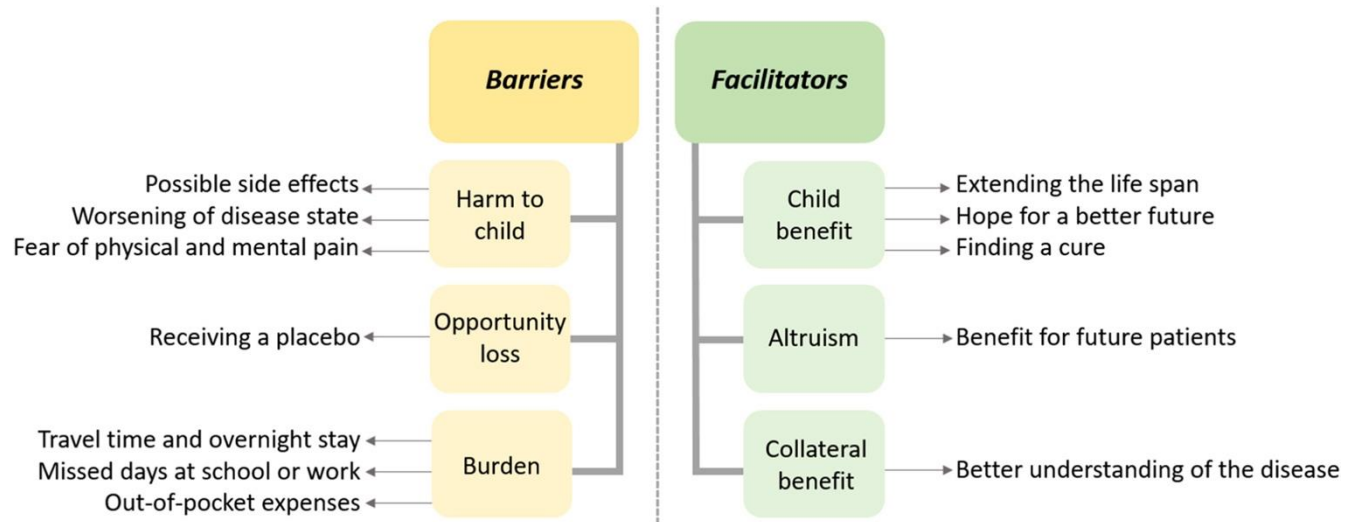
Reports in medical
journals

Presentations at international
conferences



Scientific community

The experience of clinical study and trial participation in rare diseases: A scoping review of centronuclear myopathy and other neuromuscular disorders



Results were used to draft study protocol

Aim

- To investigate the **burden of** and the **lessons learned** from the first natural history studies and trials from a **patient perspective** by a qualitative approach

Methods

- Four focus groups, 6 – 12 participants each: 37 participants in total
 - Study participants
 - Parents/caregivers of study participants
 - Representatives from patient organisations
- At the ZNM Family conference and online via Teams
- Patients were involved as researchers



A STUDY INTO THE
**BURDEN OF AND
LESSONS LEARNT FROM TRIALS**

PERSPECTIVES FROM
THE PATIENT COMMUNITY

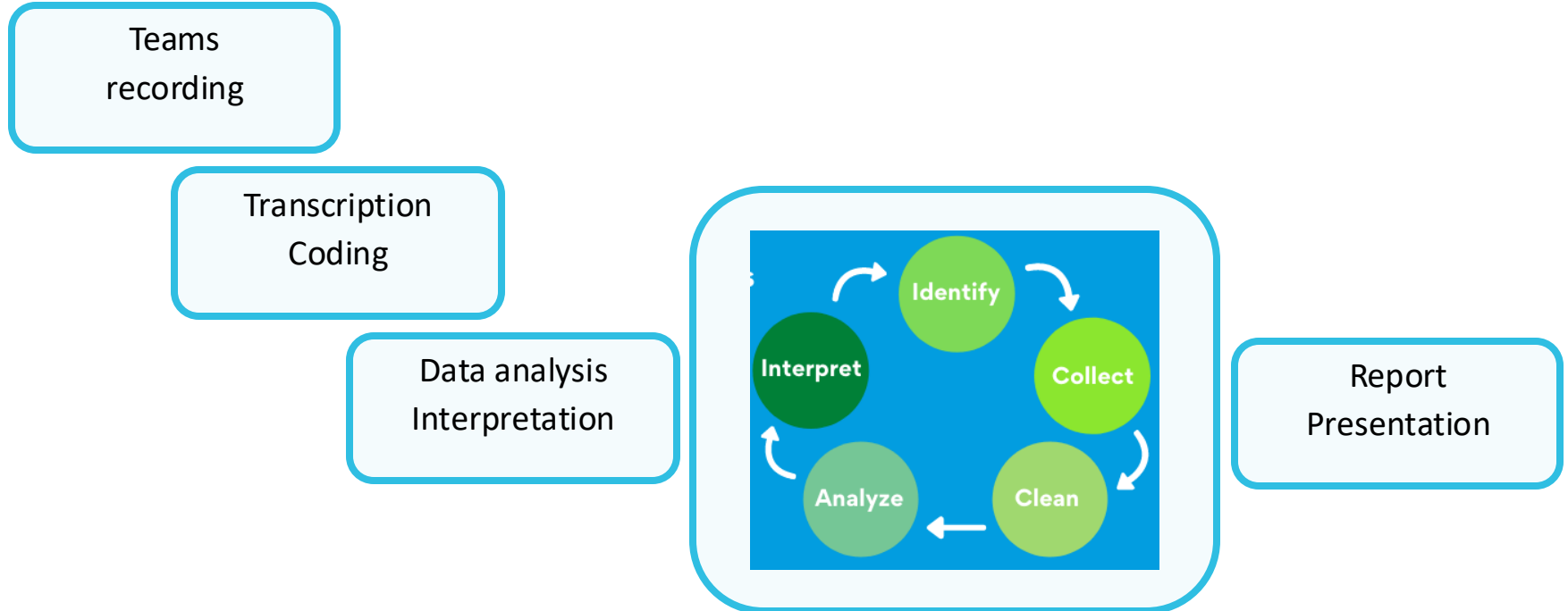


Focus group themes



- Expectations and preparation
- Trial participation
- Communication
- Recommendations

Data analysis and interpretation



"A trial is not a treatment; it can be a dangerous and high-risk event to be in"

Results

- Realistic expectations: small improvements of function and QoL
- Great impact on many aspects of daily life
- Challenge: keep in mind that a trial is not a treatment → balance between expected effects and risks
- Importance of clear communication (timing, method, and content) → especially in case of side effects

"So, for us it's how can we make sure our little guy has as few barriers in life and gets the most quality and quantity of a life that he has given."

"We would actually be taking more than one month off just to be there... Which also meant taking huge time off, getting all our vacations and taking it in."

Recommendations for future clinical studies



Fit appointments that fit the patient's care schedule as closely as possible



Sponsors should offer a service for emotional support



Awareness of impact on daily life, and possible financial costs



Patient organizations play important part in expectations management

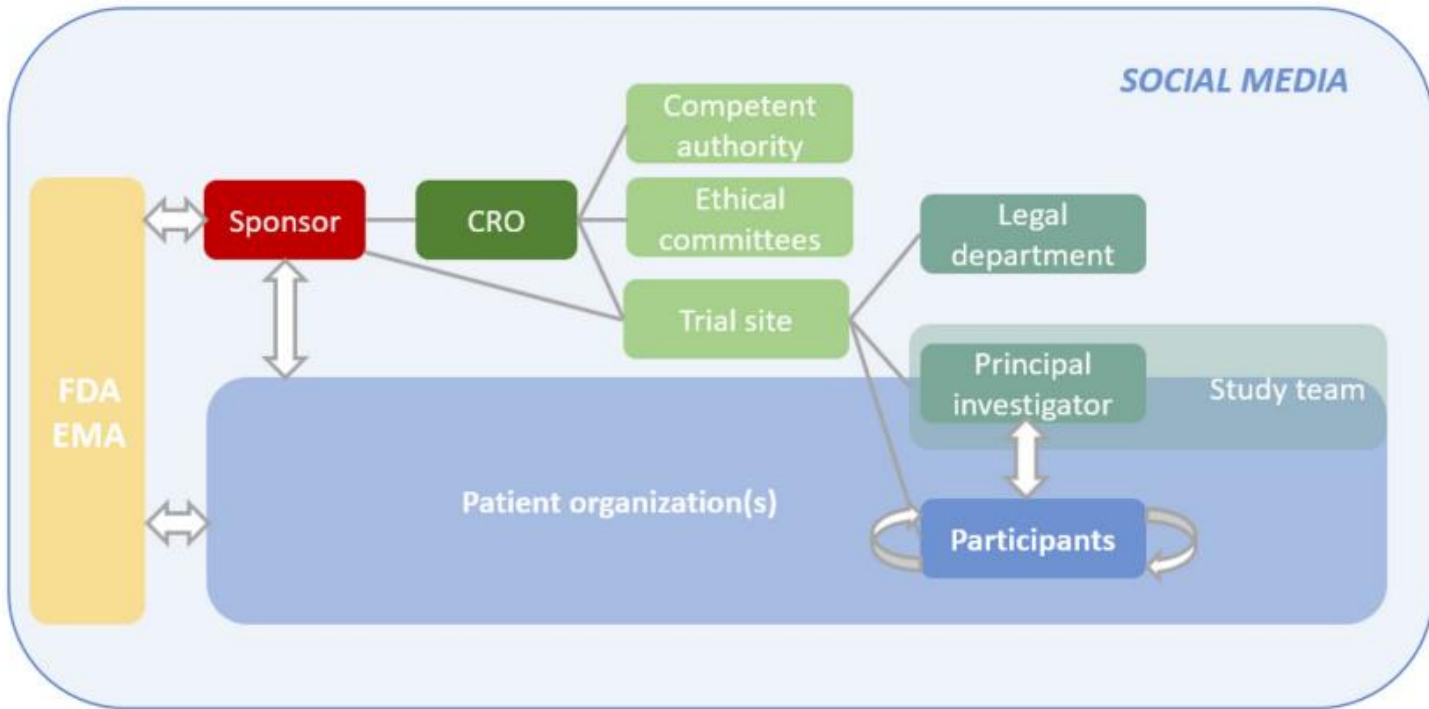
Conclusions

Importance of involving patients in the design, development and evaluation of clinical studies and trials

Important insights in clinical study experiences:
not only physical or medical outcomes

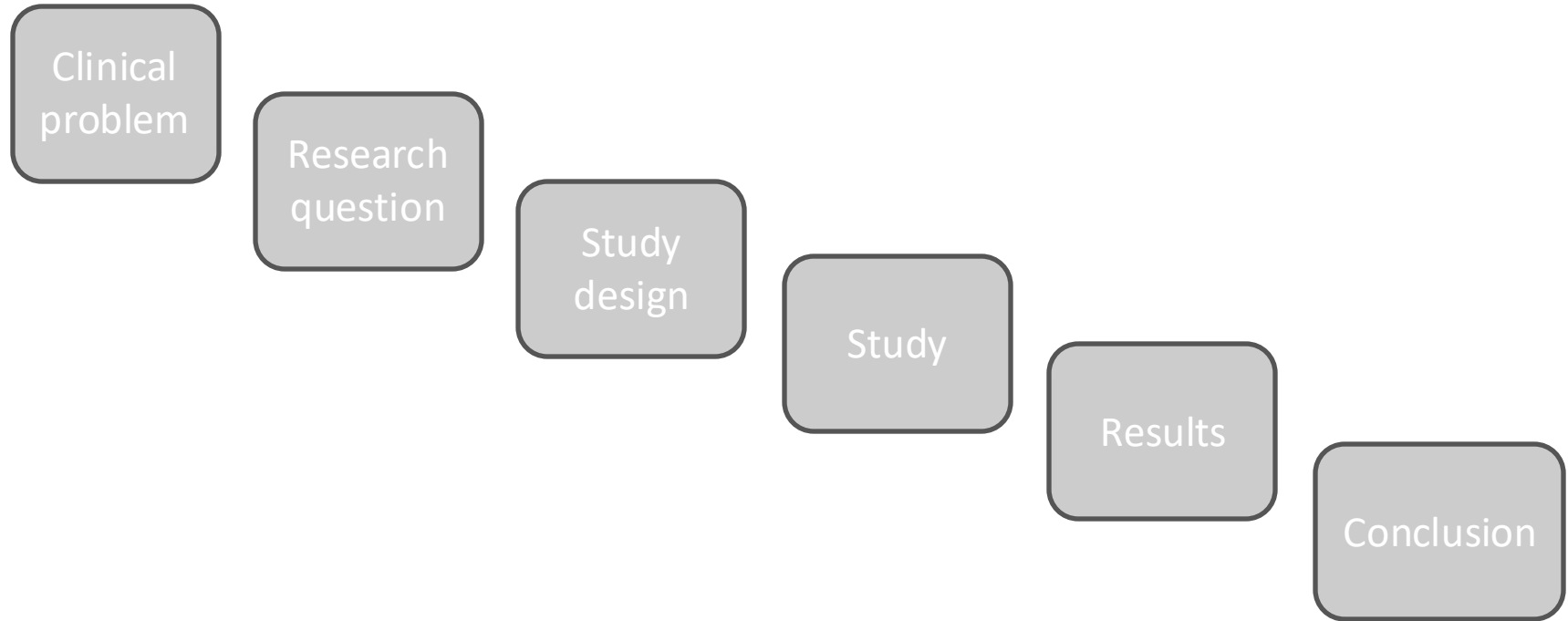
Partnership of sponsors, researchers, and patient organizations is crucial

Co-creation of clinical research by academic researchers and patient organizations worldwide

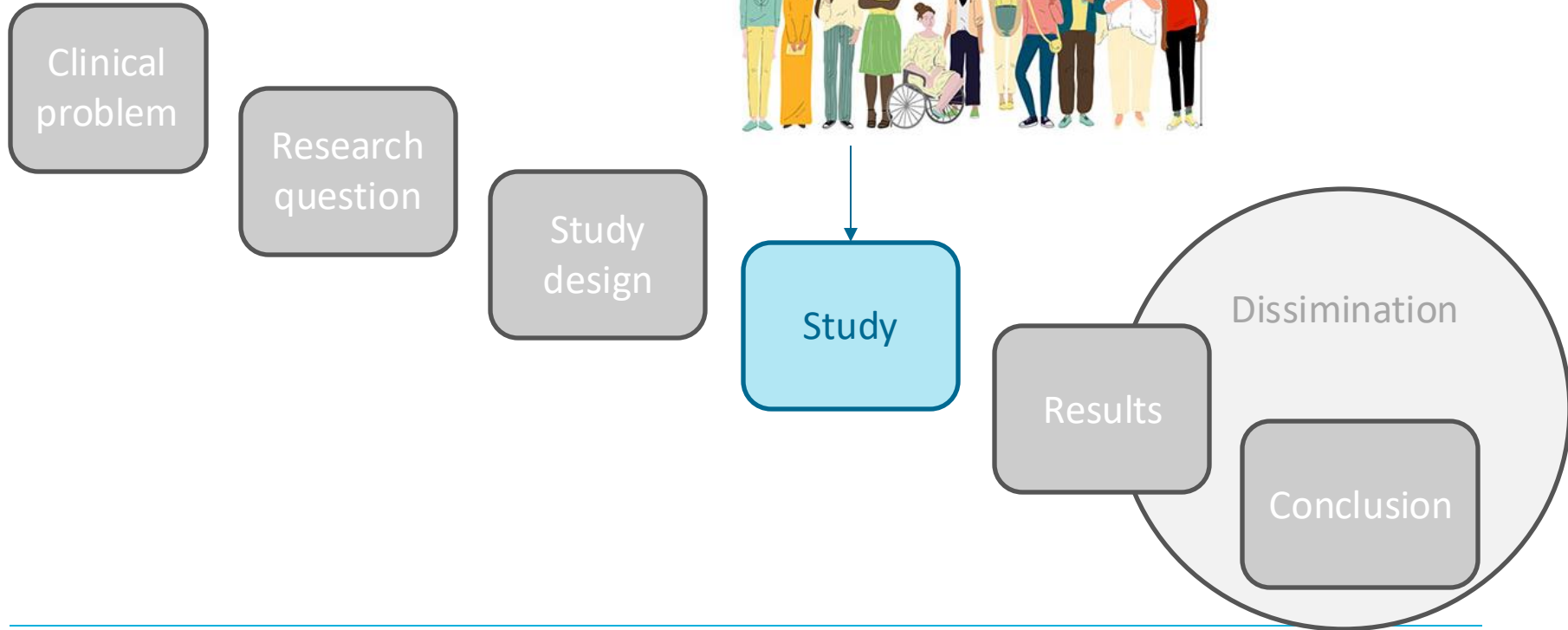


2. Patient participation

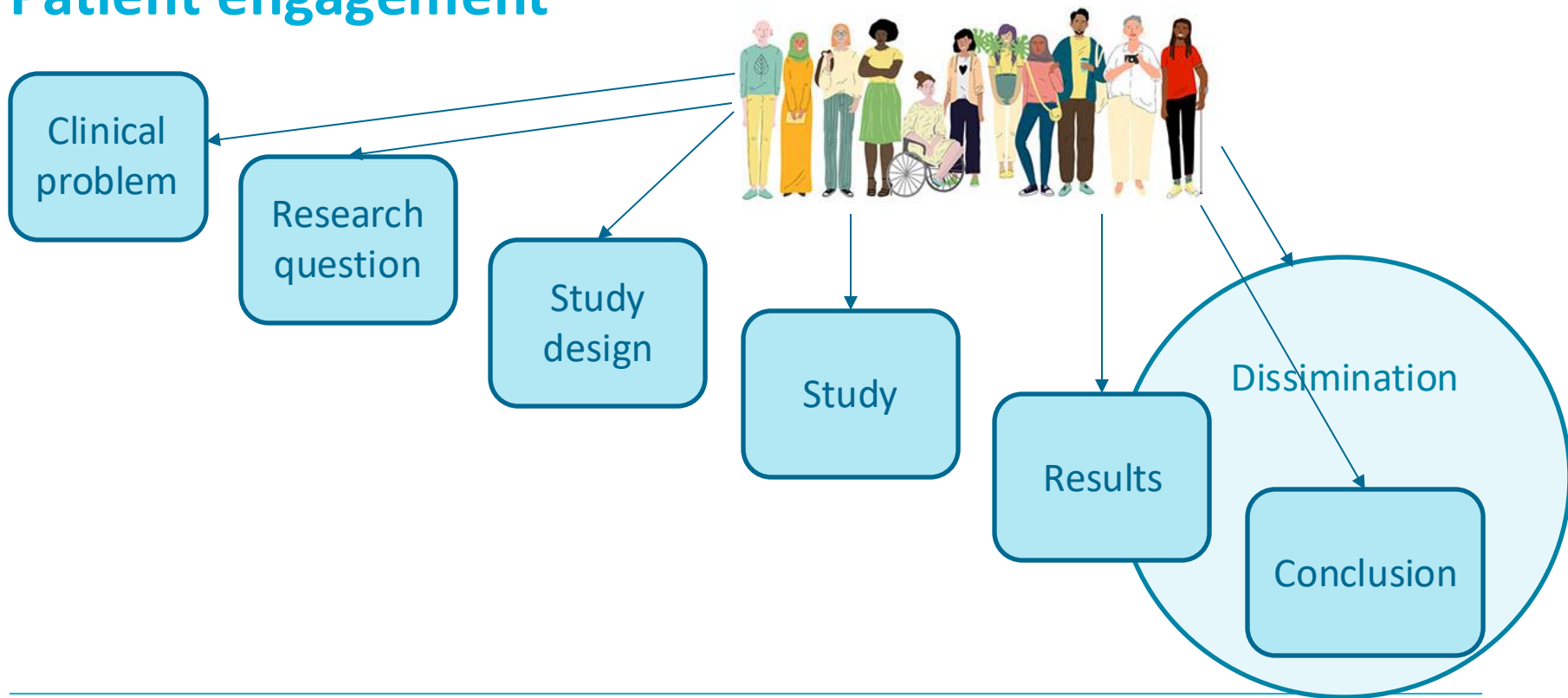
Patient participation



Patient participation



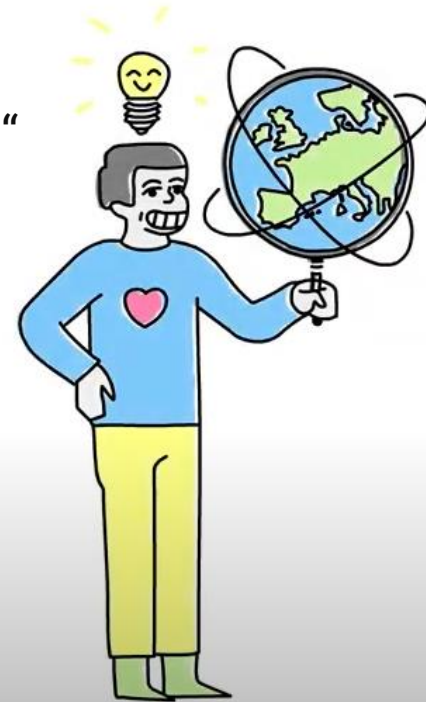
Patient engagement



Patient involvement

“PPI: **Patient** and Public **Involvement** in Research”

- Patient involvement
- Patient engagement
- Patient participation
- Link to video: [Patient and Public Involvement in Research – YouTube](#)



direct input



Brentney's experience

Journal of Neuromuscular Diseases 11 (2024) 1067–1083
DOI 10.3233/JND-240029
IOS Press

1067

Research Report

Individuals and Families Affected by RYR1-Related Diseases: The Patient/Caregiver Perspective

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Johann Böhm^g, Wija Oortwijn^b, Robert T. Dirksenⁱ and Nicol C. Voermans^{a,*}

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3. RYR1-RD international patient survey

Background

- Several preclinical studies ongoing
- This calls for optimal trial readiness of the trial sites
 - Identification of patients that can be recruited
 - Selection of the most appropriate outcome measures
 - Availability of study sites with well-trained personnel
- Involvement of patient community

RESEARCH ARTICLE

Long-term Natural History of Pediatric Dominant and Recessive *RYR1*-Related Myopathy

Anna Sarkozy, MD, PhD,* Mario Sa, MD,* Deborah Ridout, MSc, Miguel Angel Fernandez-Garcia, MD, Maria Grazia Distefano, MD, Marion Main, MPhy, Jennie Sheehan, MPhy, Adnan Y. Manzur, MD, Pinki Munot, MD, Stephanie Robb, MD, Elizabeth Wraige, MD, Rosaline Quinlivan, MD, PhD, Mariacristina Scoto, MD, PhD, Giovanni Baranello, MD, PhD, Vasantha Gowda, MD, Rachael Mein, MSc, Rahul Phadke, MD,† Heinz Jungbluth, MD, PhD,† and Francesco Muntoni, MD†

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Neurology® 2023;101:e1495-e1508. doi:10.1212/WNL.000000000000207723

Natural history study in congenital myopathies (ongoing)

Radboudumc

A Single-Center Prospective Natural History Study of *RYR1*-Related Disorders

irene.chrismer@nih.gov



Rycal S48168 (ARM210) for *RYR1*-related myopathies: a phase one, open-label, dose-escalation trial

Joshua J. Todd,^{1,2,3,4} Tokunbo A. Lawal,⁵ Irene C. Chrismer,⁶ Angela Kakkiris,⁷ Christopher Gurneech,⁸ Minol S. Jain,⁹ Melissa R. Waite,¹⁰ Victoria Bianzilli,¹¹ Shovonne Pascoe,¹² Xia Brooks,¹³ Christopher J. Mandons,¹⁴ Gina Nenrot,¹⁵ Yan Cheung,¹⁶ Wills Radheg,¹⁷ Pooja Varma,¹⁸ Claudia Calvo-Prisco,¹⁹ Magalie Emile-Racke,²⁰ Katherine G. Mollere,²¹ Andrew R. Marks,²² Yael Webb,²³ Eugene E. Marcantonio,²⁴ A. Raghav Foley,²⁵ Carsten G. Bönnemann,²⁶ and Payam Mohassel^{27,28}



Home - RyCarma Therapeutics

Aim

To investigate:

- What people with RYR1-RD and their caregivers **expect from future clinical trials**
- What would **encourage** them to participate

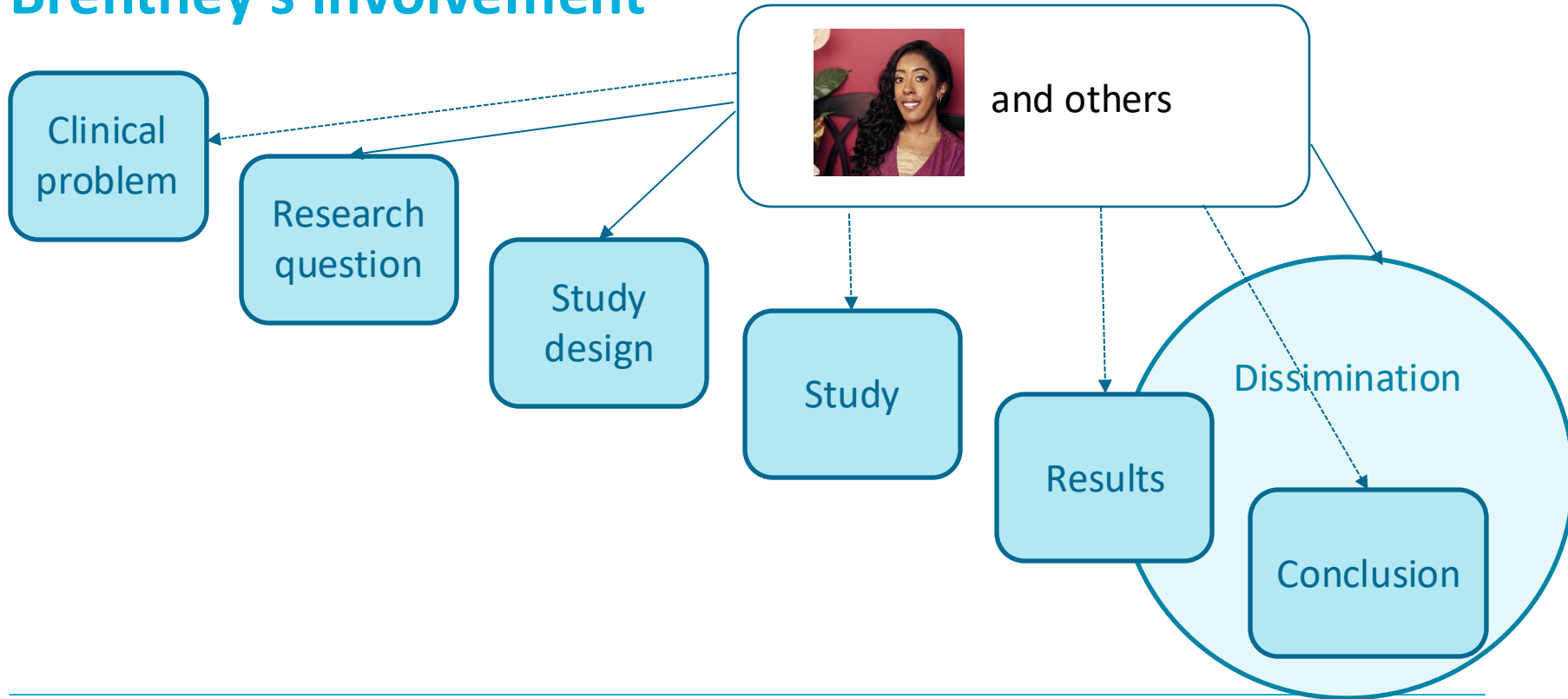
RYR1-RD patient survey

- Based on survey in FSHD patients
- Adjusted and translated (with help of patients and ARMGO / RyCarma)
- Collects limited demographic information (treated entirely anonymous)
- Results will be published in medical scientific journal

Survey:

- Current management of RYR1-RD
- Clinical trial experiences
- Encouraging and discouraging factors in clinical trials
- Practical aspects of trial participation
- Expectations of future clinical trials
- Information about current condition
- Difficulties with activities
- Functional abilities
- Symptoms that cause you concern
- Concerns for future

Brentney's involvement



RYR1-RD patient survey

- For all patients with a RYR1-RD (congenital myopathy)
 - Participants up to 16 years: parents should complete it (together)
 - Available in 6 languages: English, Spanish, Portuguese, French, German, Dutch
 - Duration: approximately 45 min (possible to pause in between)
 - Available until 20th of April, 2025
-
- Interested? Send an email with preferred language to Lizan.Stinissen@radboudumc.nl
 - A link to the online survey will be sent
 - Or you can click on this link: [RYR1-RD patient survey](#)

What can you do?

Participation to current survey

- Participate in the current survey by emailing Lizan
- Encourage others to participate
- Ideas about fundraising for RYR-1 Foundation

Involvement in future research

- Come up with research questions
- Discuss this with Lindsay
- Compose a Research Agenda
- Think about roles: who wants to be involved in which way
- Start a Patient Advisory Board

Acknowledgements



Lena Leghart



Lindsay Goldberg



Brentney Simon



Sofia Leon



Drew Huseth



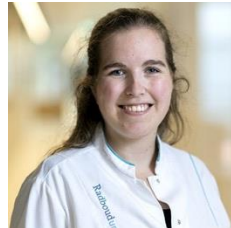
Jacqueline Hoffmann-Anderman and Maddie Anderman



Nicol Voermans



Lizan Stinissen



Sanne van de Camp



Hanneke Tanis



Orlando Alves
Carneiro Júnior*

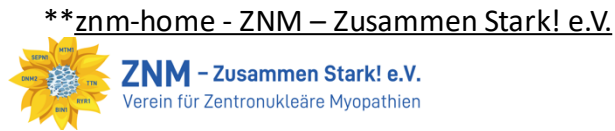


Andrea Horning**



Joseph and Siegfried
Harant

*Miopatia Congênita - Just another WordPress site



4. Discussion / questions and answers