



PART FIVE

# Advancing International Pediatric Clinical Research

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Promoting Global Clinical Research in Children:  
Informing the Future

21 March 2023, 9-11 am ET



This series is supported by an FDA Scientific Conference Grant.



**MULTI-REGIONAL  
CLINICAL TRIALS**

THE MRCT CENTER of  
BRIGHAM AND WOMEN'S HOSPITAL  
and HARVARD

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- We are committed to autonomy in our research and to transparency in our relationships. The MRCT Center—and its directors—retain responsibility and final control of the content of any products, results and deliverables.
- I have no personal financial conflicts of interests to disclose.
- This webinar will be recorded and will be posted publicly on our YouTube channel.



# *In remembrance of Dr. Vasantha Muthuswamy*

We would like to offer a brief remembrance to our valued colleague and close collaborator, Dr. Vasantha Muthuswamy, who passed away in Mumbai in February 2023.



# The MRCT Center



## Our Vision

Improve the integrity, safety, and rigor of global clinical trials.

## Our Mission

Engage diverse stakeholders to define emerging issues in global clinical trials and to create and implement ethical, actionable, and practical solutions.



# Promoting Global Clinical Research in Children



## Where we started & why this is important:

- Children **deserve access** to safe and effective medicines
- Children **historically excluded** from or underrepresented in research
- **Pediatric population widely dispersed** so clinical trials must be conducted in multiple jurisdictions
- **Persistent ethical issues:** while governing ethical principles may be generally agreed upon, differences in interpretation and application of principles exist
- Differing or nonexistent pediatric **regulations**
- Challenges in **trial initiation and conduct**
- The **pediatric patient and family voice** is not routinely solicited nor included in research life-cycle.
- **Children are not routinely offered a seat at the table.**



# Project Objectives



## **Broadly, sought to identify and propose solutions to regulatory, ethical, and operational challenges**

- Current global landscape of pediatric research governance, focusing on legislative, regulatory, and guidance gaps and inconsistencies
- Identify current initiatives to improve pediatric research globally
- Identify challenges related to decision-making by and on behalf of children
- Address benefit and risk considerations that create barriers and inefficiencies in transnational research with children.
- Identify meaningful ways to engage patients, their families, and community members
- Diverse leadership and membership, broad geographic diversity



# Webinar Series: *Advancing International Pediatric Clinical Research*



- ❑ An offshoot of the MRCT Center's *Promoting Global Clinical Research in Children* project
- ❑ Funded in part through an FDA scientific conference grant award
- ❑ 5 virtual webinars
  1. Informing the future from COVID-19 lessons learned: October 2021
  2. Time to Listen—Hearing from young people in clinical research: February 2022
  3. Assent and Consent in the Field: Culture, Context, and Respect: June 2022
  4. Facilitating Pediatrics Medicines Development: Models of Global Cooperation: Nov 2022
  5. **Today - *Promoting Global Clinical Research in Children: Informing the Future***

*Please see "Bio Book" for extended introductions to the speakers and panelists*



# Today's Agenda



<b>9:20 – 9:40 AM</b>	Including Children in Decisions About Research: Towards Consistent Global Standards	<b>Steve Joffe</b> University of Pennsylvania
<b>9:40 – 10:00 AM</b>	Involving Young People in Research: The Pediatrics Toolbox	<b>Lisa Koppelman</b> MRCT Center  <b>Gigi McMillan</b> Loyola Marymount University
<b>10:00 – 10:15 AM</b>	Establishing a Model to Integrate Children's Voices into the Clinical Research Process	<b>Thierry Lacaze</b> Maternal Infant Child & Youth Research Network (MICYRN)
<b>10:15 – 10:45 AM</b>	Innovations in the Pediatric Regulatory Space: Fireside Chat	<b>Dominik Karres</b> European Medicines Agency  <b>Skip Nelson</b> Johnson & Johnson
<b>10:45 – 10:55 AM</b>	Closing	<b>Barbara Bierer</b> MRCT Center





# Including Children in Decisions About Research: Towards Consistent Global Standards



**Dr. Steven Joffe**

University of Pennsylvania  
Perelman School of Medicine



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European Society  
for Paediatric Research



Society for  
Pediatric Research

[www.nature.com/pr](http://www.nature.com/pr)

## SPECIAL ARTICLE



# Establishing a global regulatory floor for children's decisions about participation in clinical research

Steven Joffe<sup>1,2</sup>✉, Albert J. Allen<sup>3</sup>, Jonathan M. Davis<sup>4</sup>, Elisa Koppelman<sup>5</sup>, Susan Z. Kornetsky<sup>6</sup>, Grace Marie V. Ku<sup>7</sup>, Victoria A. Miller<sup>8</sup>, Jennifer Preston<sup>9</sup>, Lasha D. Shah<sup>10</sup> and Barbara E. Bierer<sup>5,11</sup>

# Process

- Working group including 13 members, subset of larger 80+ person workgroup
- 12 monthly 90-minute Zoom meetings
- Working group identified International Council for Harmonisation (ICH) recommendations as best approximation of global standard for pediatric research
  - Analysis of ICH standards (and recommendations for improvement) in light of working group's insights



INTERNATIONAL COUNCIL FOR HARMONISATION OF TECHNICAL  
REQUIREMENTS FOR PHARMACEUTICALS FOR HUMAN USE

**ICH HARMONISED GUIDELINE**  
**ADDENDUM TO ICH E11: CLINICAL INVESTIGATION OF**  
**MEDICINAL PRODUCTS IN THE PEDIATRIC**  
**POPULATION**

**E11 (R1)**

Final version  
Adopted on 18 August 2017

# 1. Sharing information with participants & parents

- Key ICH points

- Fully inform parents as legal decision makers in language they can understand
- When seeking child assent, provide information appropriate to child's capabilities

# 1. Sharing information with participants & parents

- Recommendations—guidance should...
  - Specify what information is material
  - Distinguish research-specific elements from ordinary care
  - Ensure opportunity for questions & clarifications
  - Address the readability of documents
  - Highlight need to assess understanding (and correct misunderstandings)

## 2. Children's roles in authorizing participation

- Key ICH points
  - Where appropriate, children should give assent
  - May be necessary to reconfirm assent (or obtain consent) over course of a trial

## 2. Children's roles in authorizing participation

- Recommendations—guidance should...
  - Define assent
  - Clarify “when appropriate”
  - Address whether & how to engage children when assent is not required



### 3. Children's signatures on "assent forms"

- Key ICH points
  - Participants of appropriate intellectual maturity should sign an assent or consent form

### 3. Children's signatures indicating agreement

- Recommendations—guidance should...
  - Define “appropriate intellectual maturity”
  - Clarify the function of a signature (as opposed to other means of seeking & documenting agreement)

## 4. Right to withdraw or decline

- Key ICH points

- In all cases, participants should be made aware of right to withdraw or decline
- Refusal to assent or withdrawal of assent should be respected

## 4. Right to withdraw or decline

- Recommendations—guidance should...
  - Acknowledge possibility that, depending on child's capacity and other factors, meaningful dissent may not be possible
  - Recognize that, in some cases, continuing in trial may be in child's best interests despite dissent
  - Distinguish between objection to research-specific element and objection to element of ordinary care

## 5. Overriding request to withdraw

- Key ICH points
  - Although wish to withdraw must be respected, there may be circumstances in which parents/guardians & judge that leaving study would threaten child's welfare
  - In such circumstances, child's objection may be overridden

## 5. Overriding request to withdraw

- Recommendations—guidance should...
  - Reconcile contradiction between “request to withdraw must be respected” and ability to override that request
  - Clarify role of IRB/REC in decisions to override objection

# Summary

- Harmonizing practices for including children in decisions about research will facilitate global pediatric clinical trials
- ICH recommendations provide a strong global ethical framework for authorizing children's participation in research
- But they include several contradictions and areas of ambiguity that future revisions should aim to address

Thank you!

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@SteveJoffe



**Perelman**  
School of Medicine  
UNIVERSITY *of* PENNSYLVANIA



# Involving Young People in Research: The Pediatrics Toolbox



**Ms. Lisa Koppelman**  
MRCT Center



**Dr. Gianna "Gigi" McMillan**  
Loyola Marymount University



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# Project Objectives



Broadly, sought to identify and propose solutions to regulatory, ethical, and operational challenges

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- **Identify meaningful ways to engage patients/families/community members**



# 18 Guiding Principles



Children should only be enrolled in research that has scientific and social value related to the health of children or diseases that originate in childhood.



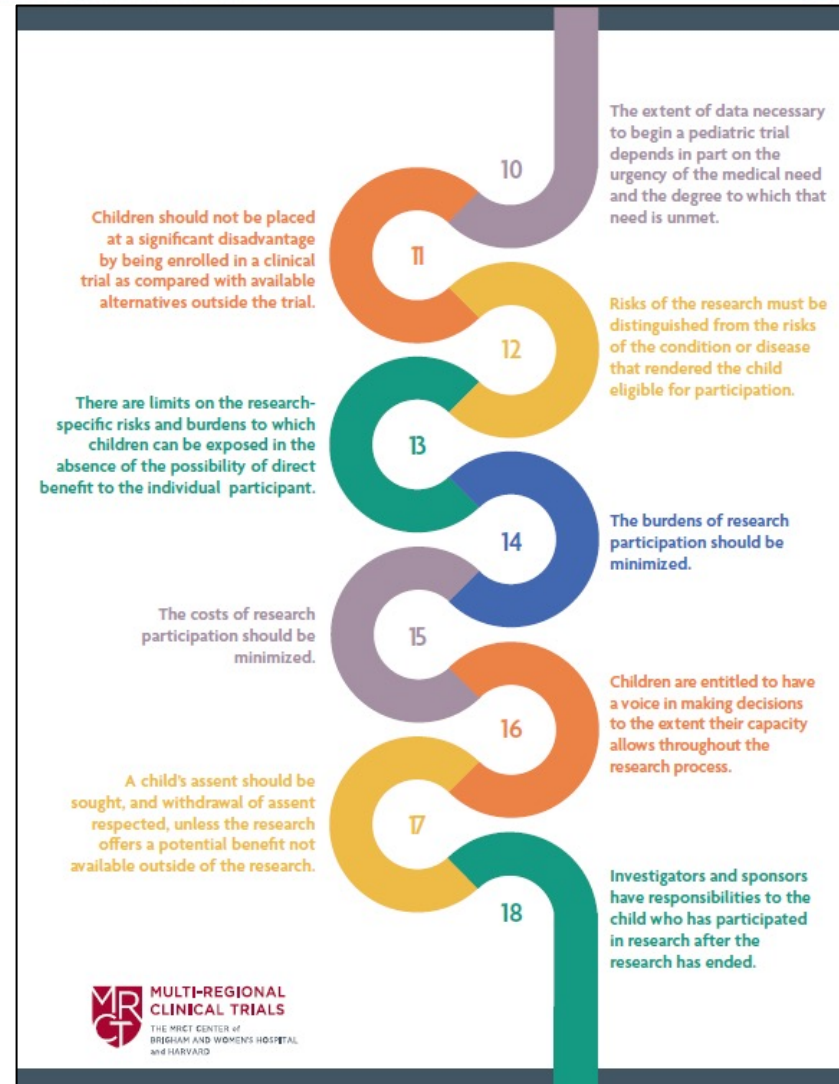
Children and their health needs are an important research priority.



Pediatric research often requires multi-site and multi-national trials. Regulations across jurisdictions should be aligned.



# 18 Guiding Principles



Children are entitled to have a voice in making decisions to the extent their capacity allows throughout the research process.





# **INCLUDING YOUNG PEOPLE IN RESEARCH:**

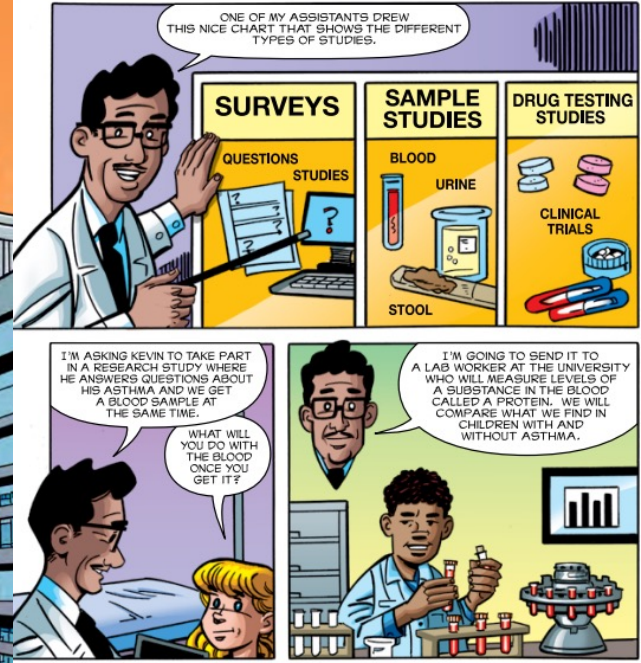
## ***A “How-To” Guide***



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# Comic Book



# Educational Materials



**ASSENT to CONSENT**

**BABY**  
Parent: Consent

**WHAT IS CLINICAL RESEARCH?**  
A guide for young people.

**WHAT IS ASSENT?**  
A guide for young people.

**WHAT HAPPENS AT THE END OF A RESEARCH STUDY?**  
A guide for young people.

**SENSITIVE INFORMATION IN RESEARCH**  
A guide for young people.

**SHARING YOUR INFORMATION (DATA) IN RESEARCH**  
A guide for young people.

**WHAT IS A FOCUS GROUP & WHY SHOULD I JOIN ONE?**  
A guide for young people.

**What happened when I started clinical research?**  
Your parent/guardian gave permission for you to be in the clinical research. Their permission was called **consent**. You have been asked for your agreement to take part in the research too. Your agreement was called **assent**.

**What happens when I become a "legal adult"?**  
You make your own decisions. If you are already participating in research, you will be asked if you want to continue. This is called **consent**.

**How is consent different from assent?**  
Both consent and assent mean agreement. But only legal consent can give consent.

**How is consent given?**

**STEP 1** Your doctor will explain how the research will be done. You may ask any questions.

**STEP 2** Sign the informed consent document.

**Who are the researchers?**  
People called scientists investigate things to help people.

**I've heard my doctor and my parents talking about clinical research, clinical trials, and clinical studies. What do these words mean?**  
*Clinical research, clinical trials, and clinical studies* are similar terms to describe ways to learn new things about how to diagnose, treat, and prevent diseases. To keep things simple, we'll just use the term **research**.

There are many different types of research. Some research involves testing new drugs, devices, or possible treatments for people who are sick. Other research is done to improve existing treatments, to figure out why someone is sick, or to understand how to prevent someone from getting sick.

**Assent means to agree.**  
Some research studies only need the parent's agreement —called **consent**—for a child or adolescent to participate. Other studies also need the child or adolescent's agreement —called **assent**. This brochure applies only to studies that need assent.

Your participation in research is complete when the investigators finish collecting information from you.

**THANK YOU** for taking part in research! Your contributions should help others.

**What should I know before I agree to join a research study?**  
You should know **WHY** the research is being conducted and **WHAT** you will be asked to do as part of the research study. For example, you may be asked to take a new medication or visit a research site once a week.

You can ask your doctor or the research team any question that you have about the study.

Researchers will ask you questions when you participate in research. Some questions may be about things that you're used to sharing—like your age or grade in school.

Other questions might seem private. We call your answers **sensitive information** since people can be concerned about sharing this with others.

Researchers might collect sensitive information related to that information.  
Anika is participating in a research study on how often people use marijuana. The study includes an anonymous survey that asks Anika how often she has smoked marijuana in the past month.

**Sensitive Information**  
ETHNICITY  
YOUR AGE  
SEXUAL ORIENTATION

Researchers collect information about you when you are in a research study.

Researchers may ask questions, look at medical records, get test results from a blood sample, look at patient information from journals or apps, or gather information in other ways. Researchers may call your information 'data.'

**Data** is just another word for information. Your height, temperature, blood test results, and answers to a survey are examples of data.

**Why do researchers collect information?**  
Researchers use information to answer questions about illness. They often use data to answer questions.

Some research studies will not collect sensitive information.

**What is a focus group?**  
A focus group is a small group of people (usually 6-10 people) who meet to talk about a specific topic that researchers want to learn about.

Some examples of topics include:

- Virtual vs. in-person school
- Social group interactions
- Recreational drug use

**What is expected of me in a focus group?**  
You will talk about your thoughts and experiences with a small group of people. You will also be able to listen to the others in the group. If you join, you should be honest about your opinions and experiences. It's also okay not to say anything.

Focus groups usually last between 60-90 minutes. They usually just meet once, but sometimes more.

Focus groups usually include people who are similar in some way. For example, the people in your group may all have the same illness, be the same sex, or be around the same age.

There are usually 1 or 2 leaders who help guide the discussion.

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# Other Materials

Pediatric Research Comparison Chart: Risk Benefit Analysis

Country	Primary Applicable Laws and Guidance  Adopted ICH?	How is "risk" defined?	How is "low risk" or "minimal risk" defined?	How is "benefit" defined (including for which populations is it measured)?	What risk level is acceptable for research studies that may offer the prospect of benefit to the individual participant ("direct benefit")?	What risk level is acceptable for research studies that only may offer the prospect of benefit to the group of children in which the participant falls?	What risk level is acceptable for research studies that only may offer the prospect of benefit to society, science, medicine as a whole?	Are placebo controls permitted and when?	Are healthy volunteers permitted and when?
ICH Harmonized Guideline Addendum to ICH E11: <b>Clinical Investigations of Medicinal Products</b> in the Pediatric Population E11R(1), August 18, 2017 ("ICH E11")	N/A	Not defined, but risks and hazards use in connection with toxicity and adverse events. "Distress" includes procedures that may cause pain or frighten	Comparable to those risks and burdens encountered in routine clinical care	Not defined, but clinical benefit implied for participants	Greater than low risk; balance of risk and anticipated clinical benefit must be at least comparable to the available alternative treatments	Low compared to those encountered in routine clinical care	Low compared to those encountered in routine clinical care	Not specified, but possible if risk is low	Not generally, exceptions must be justified
		"Every effort should be made to anticipate and reduce known hazards. Investigators should be fully aware before the start of a clinical study of all relevant preclinical and clinical toxicity of the medicinal product. To minimize risk in pediatric clinical studies, those conducting the study should be properly trained and	"low, i.e., comparable to those risks and burdens encountered in their routine clinical care." (ICH E11, Addendum, Section 2)	"In addition, participants in clinical studies are expected to benefit from the clinical study except under the special circumstances discussed in ICH E6, section 4.8.14." (ICH E11, Section 2.6)  "Without a prospect of direct clinical benefit from an experimental intervention or procedure, the foreseeable risks and burdens to which pediatric participants would be exposed must be low, i.e., comparable to those risks and burdens encountered in their routine clinical care." (ICH E11, Addendum, Section 2)	"Experimental interventions or procedures that present greater than low risk to participants must offer a sufficient prospect of clinical benefit to justify or outweigh exposure of a pediatric population to such risk. Likewise, the balance of risk and anticipated clinical benefit must be at least comparable to the available alternative	"Without a prospect of direct clinical benefit from an experimental intervention or procedure, the foreseeable risks and burdens to which pediatric participants would be exposed must be low, i.e., comparable to those risks and burdens encountered in their routine clinical care." (ICH E11, Addendum, Section 2)	"Without a prospect of direct clinical benefit from an experimental intervention or procedure, the foreseeable risks and burdens to which pediatric participants would be exposed must be low, i.e., comparable to those risks and burdens encountered in their routine clinical care." (ICH E11, Addendum, Section 2)	"Without a prospect of direct clinical benefit from an experimental intervention or procedure, the foreseeable risks and burdens to which pediatric participants would be exposed must be low, i.e., comparable to those risks and burdens encountered in their routine clinical care." (ICH E11, Addendum, Section 2)	"When clinical studies are required to obtain information relevant to the use of a medicinal product, such studies should be conducted in pediatric populations having the disease or condition for which the investigational product is intended, unless an exception is justified." (ICH E11, Addendum, Section 2)

Pediatric Research Comparison Chart

Country	Primary Applicable Laws and Guidance  Adopted ICH?	What is the age of majority?	Is permission by the parent or guardian required to participate in a study? For parents, is permission by one or both required?	Is assent (or expression of will) to participate of the child required? If so, at what age?	Are a child's participation or assent (not required)
ICH Harmonized Guideline Addendum to ICH E11: <b>Clinical Investigations of Medicinal Products</b> in the Pediatric Population E11R(1), August 18, 2017 ("ICH E11")	N/A	Per local law	Yes; not specified	Yes; age determined by IRB/IEC or consistent with local legal requirements	Yes, for serious or life-threatening diseases in which, in the opinion of the investigator and parent(s)/legal guardian, the welfare of a pediatric patient would be jeopardized by his or her failing to participate in the study. In this situation, continued parental (legal guardian) consent should be sufficient to allow participation in the study." (ICH E11, 2.6.3)
		N/A	"...pediatric study participants are dependent on their parent(s)/legal guardian to assume responsibility for their participation in clinical studies. Fully informed consent should be obtained from the legal guardian in accordance with regional laws or regulations." (ICH E11, 2.6.3)	"All participants should be informed to the fullest extent possible about the study in language and terms they are able to understand. Where appropriate, participants should assent to enroll in a study (age of assent to be determined by IRB's/IEC's or be consistent with local legal requirements). Participants of appropriate intellectual maturity should personally sign and date either a separately designed, written assent form or the written informed consent. In all cases, participants should be made aware of their rights to decline to	"All participants should be informed to the fullest extent possible about the study in language and terms they are able to understand. Where appropriate, participants should assent to enroll in a study (age of assent to be determined by IRB's/IEC's or be consistent with local legal requirements). Participants of appropriate intellectual maturity should personally sign and date either a separately designed, written assent form or the written informed consent. In all cases, participants should be made aware of their rights to decline to

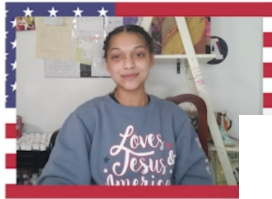
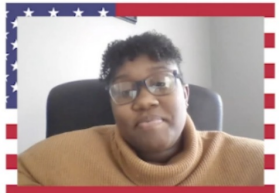




# Video Series: Prioritizing Young People's Voices



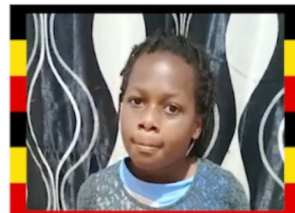
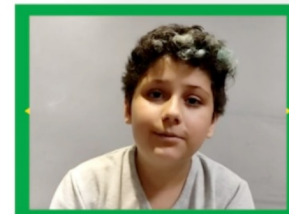
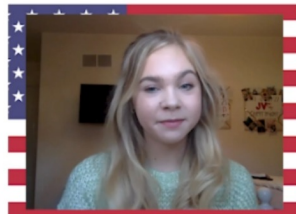
## Meet **ICAN** Youth Members



## Meet **ICAN** Youth Members



## Meet **ICAN** Youth Members



# Video Series: Time to Listen



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# Publications

## PEDIATRICS®

### Monitoring the Pediatric Clinical Trials Enterprise

Robert M. Califf, MD,<sup>a</sup> Deborah A. Zarin, MD<sup>b</sup>

*Therapeutic Innovation & Regulatory Science* (2021) 55:1109–1110  
<https://doi.org/10.1007/s43441-021-00339-z>

DIA

COMMENTARY



### Common Commentary on Paediatric Oncology Drug Development Published: Another Step in Optimising Global Regulatory Coordination of Paediatric Development Plans

Dominik Karres<sup>1</sup> · Gregory Reaman<sup>2</sup> · Franca Ligas<sup>1</sup> · Giovanni Lesa<sup>1</sup> · Susan McCune<sup>3</sup> · Suzanne Malli<sup>3</sup> · Ralph Bax<sup>1</sup> · Jean Temeck<sup>3</sup>

## PEDIATRICS® PERSPECTIVES

### The Parent's Dilemma: Pediatric Assent in Research

Gianna McMillan, D.Bioethics



European Society for Paediatric Research



Society for Pediatric Research

#### SPECIAL ARTICLE

### Establishing a global regulatory floor for children's decisions about participation in clinical research

Steven Joffe<sup>1,2</sup>, Albert J. Allen<sup>3</sup>, Jonathan M. Davis<sup>4</sup>, Elisa Koppelman<sup>5</sup>, Susan Z. Kornetsky<sup>6</sup>, Grace Marie V. Ku<sup>7</sup>, Victoria A. Miller<sup>8</sup>, Jennifer Preston<sup>9</sup>, Lasha D. Shah<sup>10</sup> and Barbara E. Bierer<sup>5,11</sup>



A reminder of why this is so important



# Establishing a Model to Integrate Children's Voices into the Clinical Research Process



Dr. Thierry Lacaze

Maternal Infant Child & Youth Research Network (MICYRN)

# Time to Listen: Hearing from Young People in Clinical Research

Part 2 of the MRCT webinar: Advancing International Pediatric Clinical Research, 2 February 2022

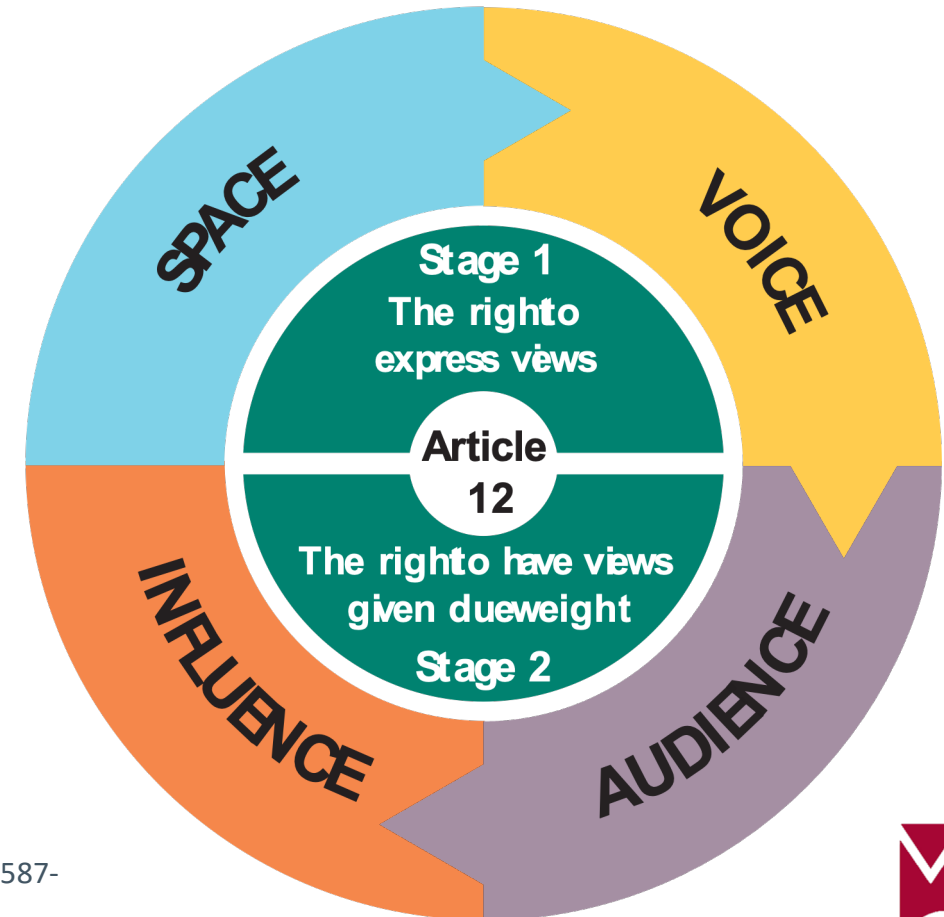


**Space:** Children and YP must be given safe, inclusive opportunities to form and express their views

**Voice:** Children and YP must be facilitated to express their views

**Audience:** The views must be listened to

**Influence:** The views must be acted upon as appropriate



Government of Ireland, 'Participation Framework: National Framework for Children and Young People's Participation in Decision-Making' (2020) Available at: [https://hubnanog.ie/wp-content/uploads/2021/04/5587-Child-Participation-Framework\\_report\\_LR\\_FINAL\\_Rev.pdf](https://hubnanog.ie/wp-content/uploads/2021/04/5587-Child-Participation-Framework_report_LR_FINAL_Rev.pdf)

# Y-POWER: Young PeOple Work to Empower Research



- Several existing Pediatric research networks in different jurisdictions are developing capacities to integrate the voices of children and young people in the development of clinical trials
- Following the MRCT webinar #2 and building on the expertise at these existing networks, a small group of individuals who work with young people has gathered and met several times
- Can we build upon those existing networks to create a cooperative and sustainable global structure that sponsors and investigators can access?



# Innovations in the Pediatric Regulatory Space



**Dr. Dominik Karres**  
European Medicines Agency



**Dr. Robert "Skip" Nelson**  
Johnson & Johnson



# Disclaimer



- The views and opinions expressed in the following PowerPoint slides are those of the individual presenters and should not be understood or quoted as being made on behalf of the European Medicines Agency or its scientific Committees (DK) or Johnson & Johnson (RN).



# R13.4 – Enhancing Global Regulatory Collaboration



- Pediatric medicines development is a global enterprise taking place in a highly complex ecosystem.
- Existing pediatric development policies have enriched the innovative medicines development research space.
- However, for certain molecules, authorization of pediatric uses continues to lag well behind adult authorization.<sup>1</sup>
- Globally relevant and efficient pediatric medicines development requires global cooperation
  - In pediatric cluster calls, EMA and FDA have a high rate of convergence (~70%).<sup>2</sup>
- Reliance models can be used for any regulatory function.<sup>3</sup>
- Models discussed **each serve a useful purpose**, are **complementary** and **not mutually exclusive**.
  - ✓ Pediatric Cluster; Parallel Scientific Advice; Multi-stakeholder Forums (ACCELERATE); Reliance.

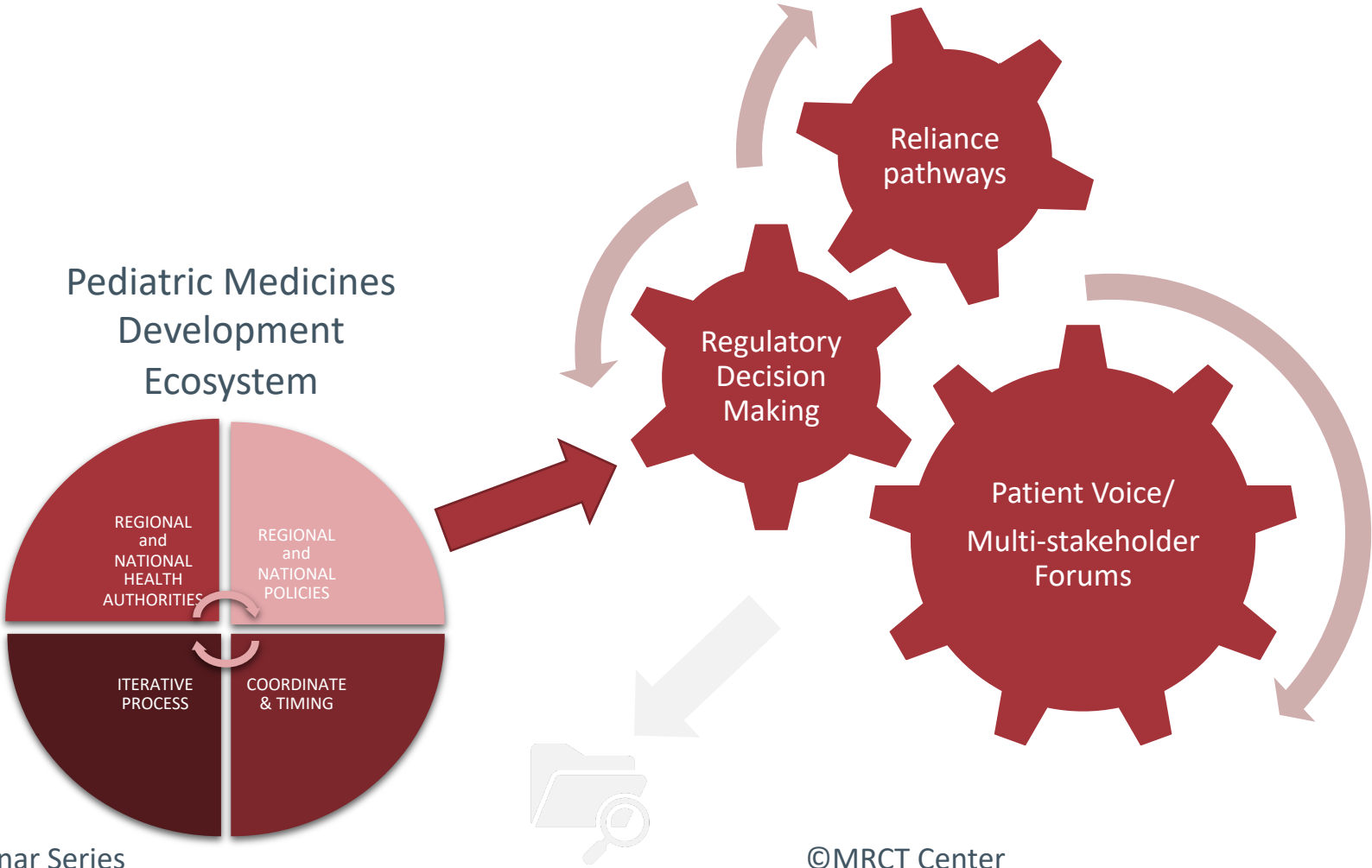
<sup>1</sup>Gilles Vassal, Gustave Roussy. Presentation on R13.4 Day One.;

<sup>2</sup>Donna Snyder, FDA. Presentation on R13.4 Day One.;

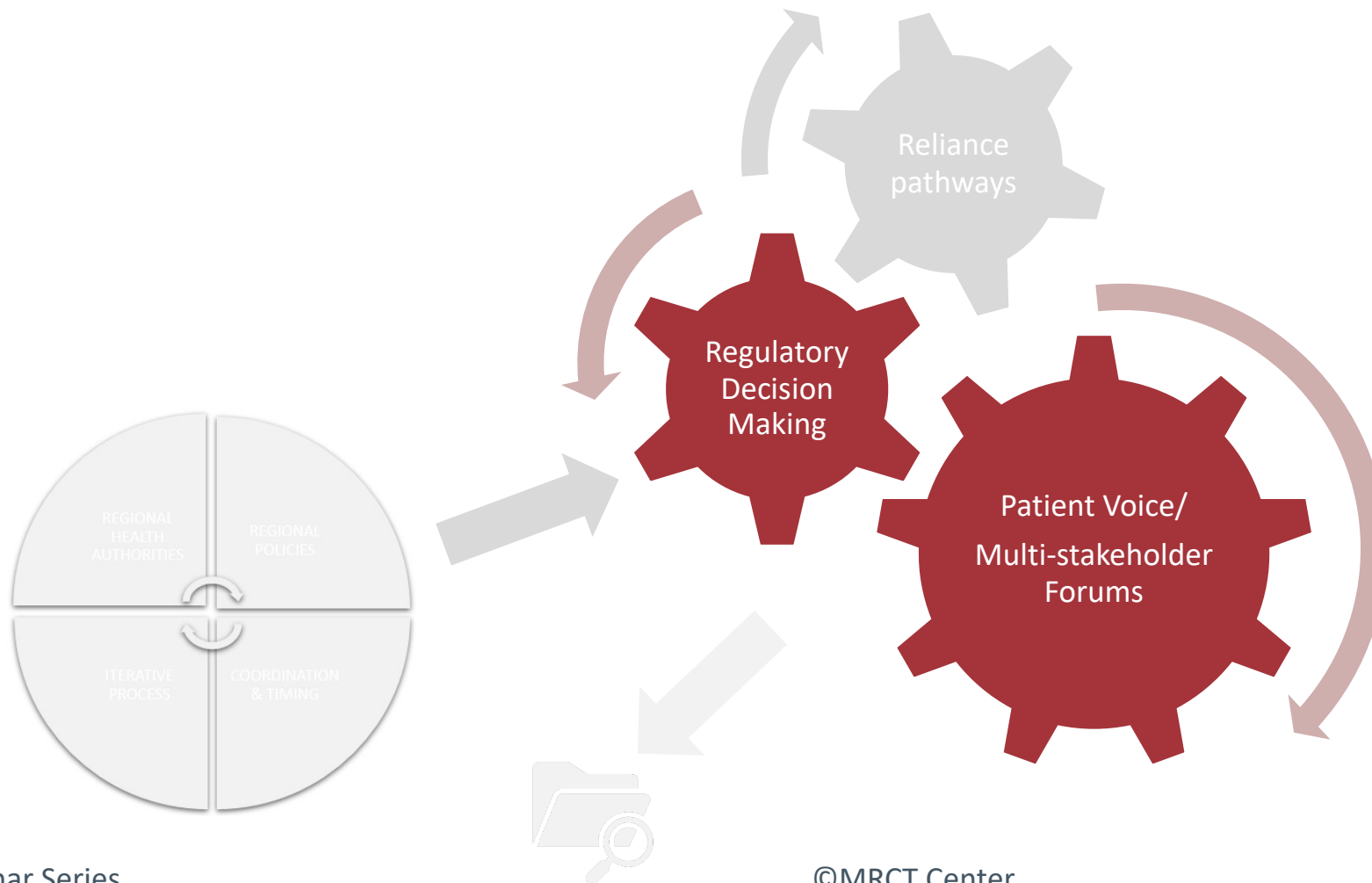
<sup>3</sup>Marie Valentin, WHO. Presentation on R13.4 Day One.



# Enhancing global cooperation in pediatric medicines development planning



# Enhancing global cooperation in pediatric medicines development **planning**



## **Multistakeholder Forums**

- ✓ Enhance linkage to regulatory guidance (esp. when co-authored by regulators)
- ✓ Expand to other therapeutic areas and/or competitive development spheres
- ✓ If expanded into early-stage development, some structural modification needed
- ✓ Role for professional societies



# Enhancing global cooperation in pediatric medicines development planning

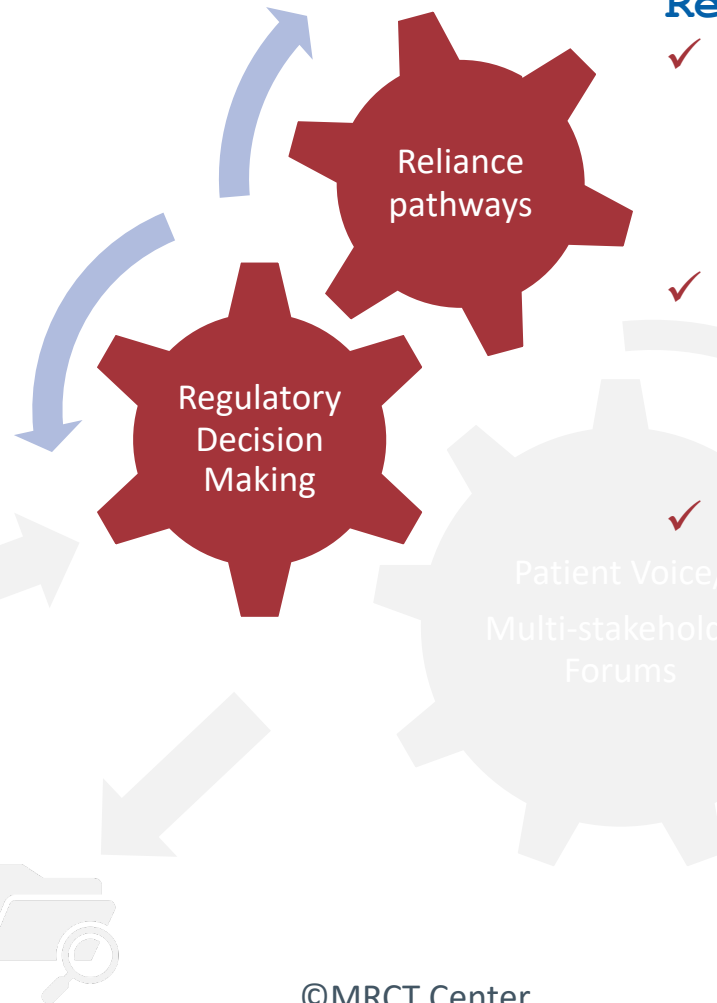


## Pediatric Cluster

- ✓ Expand to all regions where pediatric policies are implemented (e.g., MHRA and SwissMedic)
- ✓ If Pediatric Cluster leads to Common Commentary, agencies should review prior Scientific Advice Meeting Minutes to reduce risk for contradictory regulatory guidance.

## Parallel Scientific Advice

- ✓ A dedicated global pediatric scientific advice pathway is warranted for the 1/3 of pediatric plans where convergence on design elements cannot be achieved in Cluster.



## Reliance

- ✓ Given the “*high rate of convergence*” of Cluster conversations, 2/3 of pediatric plans may be suitable to a reliance procedure (i.e., to agree a pediatric plan).
- ✓ **Model 1** (existing): Switzerland - Reliance on US a/o EU decision on an agreed pediatric plans (at submission of marketing authorization).
- ✓ **Model 2**: Submission of a PIP or PSP through usual regional procedure. Cluster held to coincide within a region’s procedure or agencies invited to listen as per *pediatric memorandum of understanding (or other)*. At completion of the procedure, other agencies have the option to adopt the reviewing agency’s opinion for the plan.



# Meeting the Regulatory Challenges



- Growing pipelines of innovative products, how to identify and support completion of development efforts in children for products able to address existing unmet medical needs?
  - This includes avoiding premature exclusion of paediatric developments of potentially effective products, whilst acknowledging failure of a product at (early/ late) development stage being reality.
- Acknowledgment that regulatory decision making on mandated paediatric developments cannot take place in isolation
- Mindful of regulatory guidance and standards
- Whilst appreciating the need to be innovative, fostering a R&D environment that allows for evolution of scientific knowledge and takes changing evidence and unmet needs into consideration



# Actions to support the development of medicines for children



- Strengthened focus on unmet medical needs
- **Adapting regulatory processes to better support innovation**
- Increased alignment of data requirements between decision-makers



EUROPEAN MEDICINES AGENCY  
SCIENCE MEDICINES HEALTH

6 February 2023  
EMA/635567/2022  
Paediatric Medicines Office

## Boosting the development of medicines for children

Closing report of the European Medicines Agency and European Commission  
(DG Health and Food Safety) action plan on paediatrics

[https://www.ema.europa.eu/en/documents/report/boosting-development-medicines-children-closing-report-european-medicines-agency-european-commission\\_en.pdf](https://www.ema.europa.eu/en/documents/report/boosting-development-medicines-children-closing-report-european-medicines-agency-european-commission_en.pdf)



# Adapting regulatory processes to better support innovation



- Paediatric Investigation Plan (PIP) as a tool to fostering an environment of evolving evidence and needs

Karres D, Lesa G, Ligas F et al - EJC 2022 Dec;177:25-29. doi: 10.1016/j.ejca.2022.09.025. Epub 2022 Oct 6.





# Focus on unmet medical need - the final target population



- Early Phase study a starting point only, based on robust biological rationale to generate PK, safety and (preliminary) activity
  - To increase knowledge and allow for evidence generation to further inform final target population and subsequent (pivotal) design considerations
  - Go/no-go decisions to be incorporated early in the development to identify lack of activity/unexpectable toxicity
- An intermediate step in a PIP towards pivotal development in a target population where the need and consequential benefit of new innovative drugs is expected to be highest

Karres D, Lesa G, Ligas F et al - EJC 2022 Dec;177:25-29. doi: 10.1016/j.ejca.2022.09.025. Epub 2022 Oct 6.



# Moving from early clinical trial to 'pivotal' development



- Inclusion of 'placeholder' studies/key elements in the PIP - outlined at a high level - with (inter)-dependencies included, allowing for and awaiting supportive evidence to inform subsequent regulatory decision making related to the development towards the 'final' target population
  - Requires **multi-stakeholder collaboration**, coordination and discussions including early academia/ (multi)-company engagement followed by early involvement of regulators

Karres D, Lesa G, Ligas F et al - EJC 2022 Dec;177:25-29. doi: 10.1016/j.ejca.2022.09.025. Epub 2022 Oct 6.



# PIP – a living document – allowing for decision-making based on emerging evidence while advancing science\*

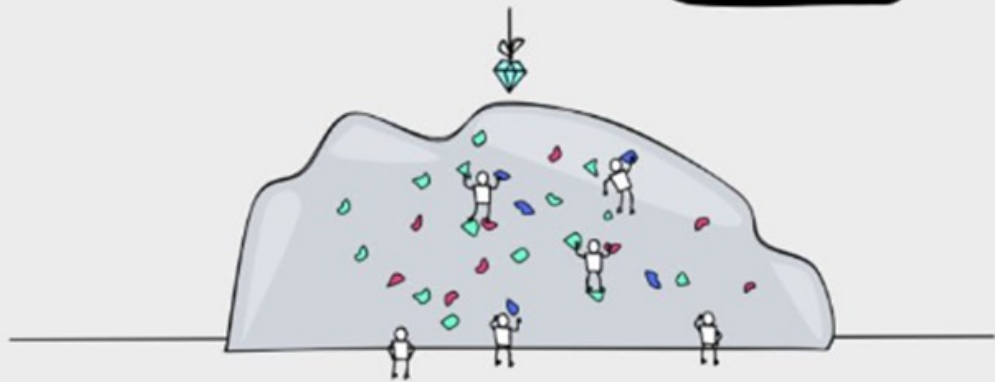


- Bringing competing development efforts (within same condition/ same in class) together into one arena allows for **timely evidence-based** and **focused discussions on priorities** structured around **multi stakeholder meetings**.
- The agreed **content of a PIP**, which can/should be modified as evidence emerges, will need to be **fit for purpose**, allowing for evidence generation and **a focus on scientific dialogue** when interacting with the regulators.
- This will allow us to provide continuous support through the PIP development to **achieve the goal of timely authorizations** of novel agents (and subsequent access).

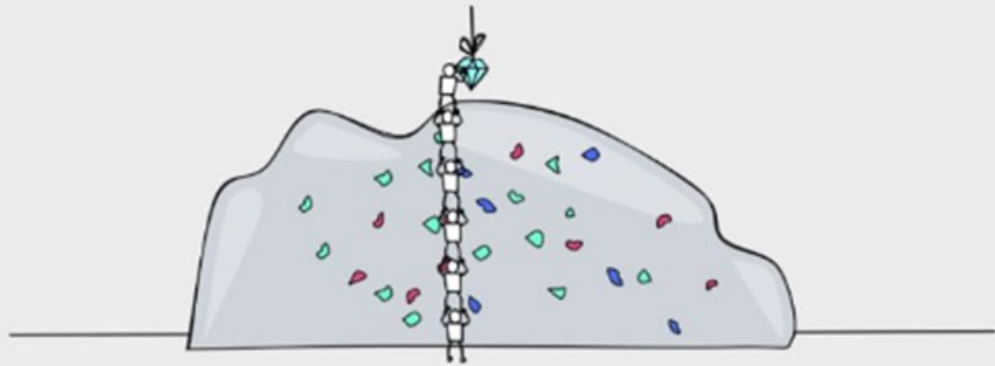
\*Karres D, Lesa G, Ligas F et al - EJC 2022 Dec;177:25-29. doi: 10.1016/j.ejca.2022.09.025. Epub 2022 Oct 6.



Compétition



Collaboration



# References:



- European regulatory strategy for supporting childhood cancer therapy developments: <https://doi.org/10.1016/j.ejca.2022.09.025>
- Actions to support the development of medicines for children including Closing report of the European Medicines Agency and European Commission (DG Health and Food Safety) action plan on paediatrics: <https://www.ema.europa.eu/en/news/actions-support-development-medicines-children>
- Guidance for Stepwise PIP pilot. [https://www.ema.europa.eu/en/documents/regulatory-procedural-guideline/guidance-stepwise-pip-pilot\\_en.pdf](https://www.ema.europa.eu/en/documents/regulatory-procedural-guideline/guidance-stepwise-pip-pilot_en.pdf)



# Fireside Chat

# Closing



- Find all these resources (and more!) on our [website](#) and on [YouTube](#)
- Direct links to all resources will be shared with the slides following the webinar



Thank You!



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