# "Pediatric Formulation Development Challenges of Today and Strategies for Tomorrow"

June 18-19, 2019

Session #4 - Regulatory/Industry

Industry Perspective: Presentation









## Globalization & Harmonization Beyond US and EU?

#### **US and EU**

- Regulations & Incentives established
- IQ Consortium (US), Pediatric Working Group; AAPS
- European Paediatric Formulation Initiative (EuPFI)



- Japan, China; Countries/regions involved in clinical studies?
- India plans for "Indian Paediatric Formulation Initiative" (IPFI)
- Regions where "Neglected Tropical Diseases" affect large numbers of children
- WHO initiatives:

Pre-Qualification Process – <a href="https://extranet.who.int/prequal/information/manufacturers">https://extranet.who.int/prequal/information/manufacturers</a>
Paediatric Development Tool Kit (anti-HIV), Module 5: Acceptability:
<a href="https://globalhealthtrainingcentre.tghn.org/site">https://globalhealthtrainingcentre.tghn.org/site</a> media/media/medialibrary/2018/07/WHO Research Toolkit Module 5.pdf

### **Anybody doing GLOBAL HARMONIZATION?**



# Patient-Centric Design for the Formulation Scientist

<u>Challenge</u>: "distance" formulation scientist <-> patient

<u>Solutions?</u> -> breakout session



Formulation Scientist

Clinical Supplies
Colleague

Clinical Study Leader

> Clinical Operations

Pediatrician

Nurse

Hospital Pharmacist Pediatric Patient

Caregiver Parent

## **New Kids** on the Block?

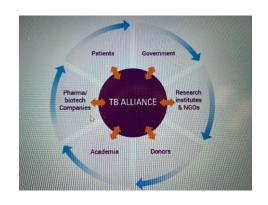
Private-Public Partnerships (PPP) as New Partners <u>Developing</u> Pediatric Products

#### **Bill & Melinda Gates Medical Research Institute**

Focus on access and affordability (CMC) www.gatesmri.org

#### **Tuberculosis: TB Alliance**

A not-for-profit Product Development Organization developing next generation products to treat multidrug-resistant TB <a href="https://www.tballiance.org">www.tballiance.org</a>



#### Schistosomiasis: Pediatric Praziquantel Consortium

"Our mission is to develop, register and provide access to a suitable pediatric praziquantel formulation for treating schistosomiasis in preschool-age children" www.pediatricpraziquantelconsortium.org

## Big Data, Artificial Intelligence (AI) & Machine Learning

- Everybody in Health Care talks about it
- Universities offering (on-line) classes; companies announcing collaborations
- Already established in medicinal chemistry
- Potential in image analysis, e.g. histopathology

## Pediatrics

- "Can AI better diagnose childhood diseases?"
- Outcomes? Real-world evidence?
- Are we ready to explore AI for pediatric formulation/product development?

