Improving new drug development for children and adolescents: The ACCELERATE initiative

Gilles Vassal
Gustave Roussy, Villejuif

June 3rd, 2016
THE SIOPE STRATEGIC PLAN
A European Cancer Plan for Children and Adolescents

http://www.siope.eu/SIOPE_StrategicPlan2015/
SIOPE Strategic Plan;
The 7 objectives

1. Innovative therapies
2. Precision medicine
3. Knowledge on biology
4. Equal access
5. Teenager and young adults
6. Quality of survivorship
7. Causes of pediatric cancers

http://www.siope.eu/SIOPE_StrategicPlan2015/
New oncology drug development for children and adolescents

• Status in 2015

  – A significant change of the environment, thanks to the EU pediatric regulation (2007)
    80 PIPs for a malignant indication

  – But we are very far from addressing the needs:

    ≈ Less than 1 in 10 children with a non curable relapse malignancy has access to an innovative therapy in Europe

Cancer = 1st cause of death by disease >1 year
Multistakeholder Paediatric Oncology Platform

To improve new oncology drug development for children

Creating a unique, multi-stakeholder Paediatric Oncology Platform to improve drug development for children and adolescents with cancer


Gilles Vassal a,*, Raphaël Rousseau b, Patricia Blanc c, Lucas Moreno d, Gerlind Bode e, Stefan Schwoch f, Martin Schrappe g, Jeffrey Skolnik h, Lothar Bergman i, Mary Brigid Bradley-Garelik j, Vaskar Saha k, Andy Pearson l, Heinz Zwierzina m

Academia, Industry, Parents, Regulatory Bodies

ACCELERATE
INNOVATION FOR CHILDREN AND ADOLESCENTS WITH CANCER

www.accelerate-platform.eu (April 30th, 2016)
www.unite2cure.org
Multistakeholder Paediatric Oncology Platform

• WP1: New strategies for improved development of oncology drugs for children and adolescent

  lead : Andy Pearson, ITCC

• WP2: New incentives for specific pediatric drug development and drug repositioning

  lead : Patricia Blanc, Imagine for Margo

• WP3: Implementation of long-term follow up measures of children and adolescents receiving new anticancer drugs

  lead : Raphaël Rousseau, Genentech/Roche
Why to improve the regulatory environment?

• There are **unjustified Class waivers**
  – Example: Crizotinib class waived

• There are **unfeasible PIPs**
  – Example: Vemurafenib PIP EMA/193393/2011

• There are **many drugs in the same class** for rare indications

• There are **delays** in starting pediatric developments
### Delays in starting pediatric developments

The PD1 inhibitors

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- Marketing authorisation in melanoma US
- Marketing authorisation in melanoma EU
- Approved Pediatric Investigation Plan

Start pediatric Trials In EU
Proposals

1. Pediatric development should be based on drug mechanism of action instead of adult indication

2. Prioritisation should be set up to choose compounds to be evaluated or not in children
   - Based on MOA, needs, feasibility
   - Using stronger biological and preclinical data
   - Done through multistakeholder forum

3. New incentives and rewards

4. Reduce time to start pediatric development
Implementation of mechanism of action biology-driven early drug development for children with cancer

Andrew D.J. Pearson a,*,1, Ralf Herold b, Raphaël Rousseau c, Chris Copland d, Brigid Bradley-Garelik e, Debbie Binner f, Renaud Capdeville g, Hubert Caron h,i, Jacqueline Carleer j, Louis Chesler k, Birgit Geoerger l, Pamela Kearns m, Lynley Marshall n, Stefan M. Pfister o, Gudrun Schleiermacher p, Jeffrey Skolnik q, Cesare Spadoni r, Jaroslav Sterba s,t, Hendrick van den Berg b, Martina Uttenreuther-Fischer u, Olaf Witt v, Koen Norga w, Gilles Vassal x on behalf of Members of Working Group 1 of the Paediatric Platform of ACCELERATE 2
Pediatric Preclinical POC Platform

1. Target Actionability Reviews
2. In Silico Target Patterns
3. Preclinical Model Development
4. Molecule POC Testing
5. Data Reporting & Molecule Determinations
6. Regulatory Preclinical Consensus

- 10 Diseases
- 400 PDX
- >20 GEMM

‘Mechanism-of-Action’ ↔ ‘match’ → ‘Pediatric Tumor Drivers’
in preclinical pediatric models

- Preclinical POC testing
- Informs rational decisions for clinical trials
- Potential to clarify regulatory requirements
Cause of children with cancer

Champions in the Parliament

Glenis Willmott, Françoise Grossetête, Alojz Peterle

Resolution of the EU Parliament
To be voted in September 2016
How to change limited access?

• Improve the Regulation
• Change the mindset
  – Move pediatric drug development from regulatory compliance only into R&D
  – Work together
  – Facilitate referral
• Invest in specific pediatric drug development
Annual Conference
February 22-23, 2016
BRUSSELS

- Present successful pediatric development plans
- Discuss the 10 years report and the study on the economic impact of the regulation
- Share results of the pilot projects
- Develop a global vision with the US and Japan