Drug repurposing

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Diego Ardigó, MD PhD

R&D Rare Diseases Unit Head
Chiesi Group (Chiesi Farmaceutici S.p.A.)

Therapies Scientific Committee Chairman
International Rare Disease Research Consortium

Credits

Most of today's concepts come from discussions held in the following occasions

- International Rare Diseases Research Consortium (IRDiRC)
  - Data Mining and Repurposing Task Force
- Eurordis Roundtable of Companies 2018
  - Breakout session on Drug Repurposing

Mostly with the following people

- Virginie Hivert (Eurordis)
- Daniel O'Connor (MHRA, UK)

(although everything expressed in this presentation reflects my personal opinion)

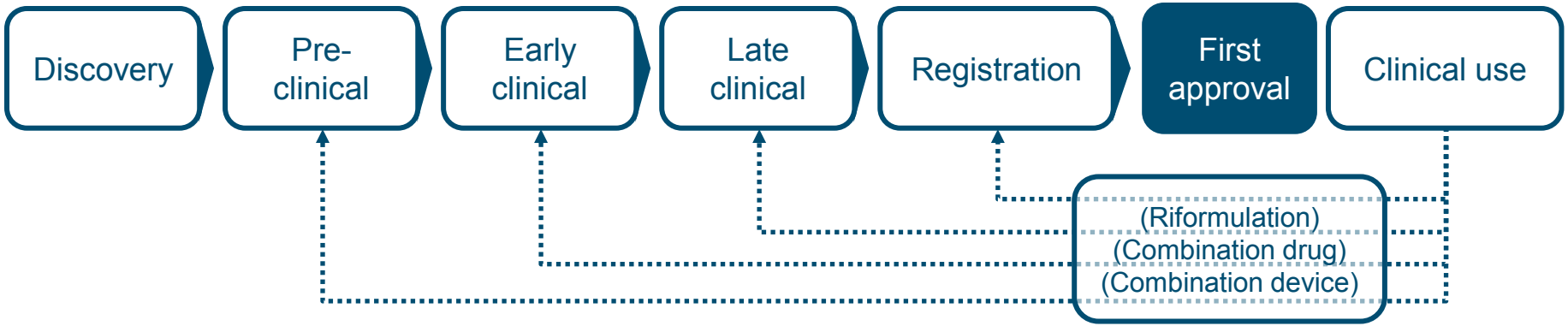
Is this sustainable?

More than 1000 new drugs in the next 10 years to treat rare diseases

TECHNICAL SUSTAINABILITY

ECONOMIC SUSTAINABILITY

What is repurposing



New use for an existing drug in an indication outside of the scope of the initial indication

Main focus for today

- Approved drug with expired protections (IP, regulatory, etc.)
- With generic products available
- To be used in a different indication (possibly a different disease)
- New protection cannot be generated in a traditional way (e.g. change in formulation)
- Needing additional data to support the indication

Repurposers: who can do it…

- Drug manufacturers
- Academic researchers
- Non-profit organizations
- Patient organizations
- Institutional organizations (health institutes, research funders, etc.)

To repurpose or not to repurpose …

WHY YES

- Based on medical need
- Faster development
- Cheaper development
- Lower development risk
- Clinical acceptance

WHAT OBSTACLES

- Economic return
- Funding of research
- Uncertainties around the data requirement
- Uncertainties around the value of the indication
- Knowledge on drug development

Key success factors

- Better collection of real-world clinical data
- Systematic collection of clinical data on off-label use
- Better integration of existing research data
- A sustainable business model

How can we incentivize repurposing?

- ~~Market protection~~
- ~~Higher price~~
- Tax credit [limitations due to national vs EU level]
- Vouchers [along the line of Priority Review Voucher in US]
- Grants/ dedicated funds for research [to cover costs]
- Prescription restrictions and control [very difficult to enforce]
- Partnership: sharing of costs – risks – returns