Putting Open Innovation Into Practice

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What is Open Innovation?

Henry Chesbrough (2003)

“Open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology. Open innovation combines internal and external ideas into architectures and systems whose requirements are defined by a business model.”
Implementing Open Innovation

“... involving far more actors in the innovation process, from researchers, to entrepreneurs, to users, to governments and civil society.”

“We need open innovation to capitalise on the results of European research and innovation. This means creating the right ecosystems, increasing investment, and bringing more companies and regions into the knowledge economy.”

Carlos Moedas, European Commissioner for Research, Science and Innovation - 2016
Why do we need new collaborative models in healthcare?

Because drug development is very...

- complex
- risky
- lengthy
- expensive
- inefficient

Because...

- Biological mechanisms underlying disease are complex
- Clinical trial designs need to be adapted to scientific knowledge
- Regulatory pathways need be adapted in certain cases
IMI – Europe’s partnership for health

IMI1: 2008-2013
€2 bn budget
59 projects

IMI2: 2014-2020
€3.3 bn budget
More ambitious
More open
Greater scope

> €5 bn

Partnership 2008 - 2020

efpia

€2.5 bn
IMI – Europe’s partnership for health

IMI mission

IMI facilitates open collaboration in research to advance the development of, and accelerate patient access to, personalised medicines for the health and wellbeing of all, especially in areas of unmet medical need.
Distribution of funding per scientific area – IMI1

- **Infectious diseases** € 671 635 805 • 35%
- **Drug discovery** € 214 201 208 • 11%
- **Brain disorders** € 188 239 313 • 10%
- **Drug safety** € 115 383 536 • 6%
- **Metabolic disorders** € 119 468 874 • 6%
- **Cancer** € 74 371 979 • 4%
- **Stem cells** € 77 380 311 • 4%
- **Data management** € 74 291 023 • 4%
- **Inflammatory disorders** € 67 869 654 • 4%
- **Biologics** € 56 023 072 • 3%
- **Vaccines** € 47 642 719 • 2%
- **Geriatrics** € 47 453 831 • 2%
- **Education and training** € 39 650 498 • 2%
- **Lung diseases** € 38 499 367 • 2%
- **Sustainable chemistry** € 32 399 640 • 2%
- **Drug delivery** € 21 336 248 • 1%
- **Drug kinetics** € 18 118 248 • 1%
- **Relative effectiveness** € 14 910 397 • 1%

IMI contributions

**Total contributions** € 1 918 875 722
An international, cross-sector community

- 970 academic teams
- 202 SME teams
- 552 EFPIA teams
- 31 patient orgs
- 108 other teams

Over 9,000 researchers working for:

- open collaboration
- improved R&D productivity
- innovative approaches to unmet medical needs

Figures from June 2016
Measures of Success

New models developed & published
Setting new standards
Use by industry
Impact on regulatory framework
Better drugs and impact on medical practice

Better Science = Evidence based decision making
IMI – Ecosystem for innovative collaborations

- Allow engagement in a cross-sector and multi-disciplinary consortium at the forefront of cutting-edge research
- Provide the necessary scale by combination of funding, expertise, knowledge, skills and resources
- Build a trustful collaboration upon a creative spirit, innovative and critical thinking
- Gain from each others (new knowledge, skills, ways of working)
- Be transformative to make a difference in drug development and ultimately patients’ lives
- Communicate the societal value of this type of model

IMI is a neutral platform where all involved in drug development can engage in open collaboration on shared challenges.