



Introduction to IMI

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What is the Innovative Medicines Initiative?

EU funding goes to:

- universities
 - SMEs
 - patient groups
- etc...



EFPIA companies

- receive no funding
- contribute to projects 'in kind'



€2.5 bn

Partnership
2008 - 2024

efpia*

€2.5 bn

Europe's partnership for health

Why do we need IMI?

Because drug development is very...

risky

inefficient

complex

time
consuming

expensive

Because...

Not enough
science
throughout
development

Clinical trial
designs not
always optimal

Regulatory
pathways not
always optimised

**All of this has a significant impact on
the affordability and speed of access
for innovation for patients**

How is IMI addressing the challenges in drug development?

Through IMI's projects we are trying to...

- **put patients at the centre**
- **share risk** (among public & private players)
- **increase efficiency** (by developing common tools)
- **reduce duplication of effort** (esp. at early stages)
- **reduce timelines** (by using a personalised medicine approach)
- **integrate the latest science** into drug development
- **use data and knowledge management** to work more effectively

We do this by creating a **neutral platform** where **all involved** in drug development – academics, industry, SMEs, patients, regulators, others – can engage in **open collaboration** on **shared challenges**.

What is IMI delivering?

2 272 FTE jobs
directly associated
with IMI projects

**460+ biological marker
candidates** for better
diagnosis & treatment

169 SMEs

25+ new tools
to facilitate drug
development

13 spin-offs

**1 600+ scientific
publications**

**20 patent
applications**

65 clinical studies

Medicines safety – the challenge

- A major challenge in drug development is finding medicines that **treat the disease** but are **not toxic to vital organs** like the **heart, liver, kidneys**, etc...
- Too often, toxicity issues are only picked up **late in drug development**, when vast amounts of **time and money have been spent** on a drug.

IMI projects are developing simple tests to detect toxicity issues earlier in drug development.

Medicines safety – an IMI success

What eTOX did

Pharma data

+

Public data

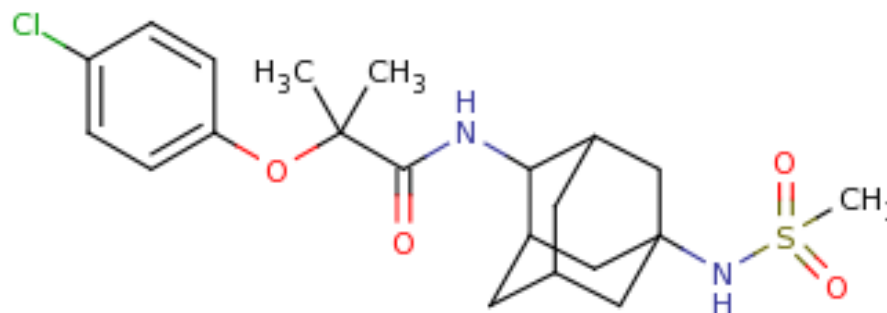
=

One big database
underlying multiple
computer-based tools

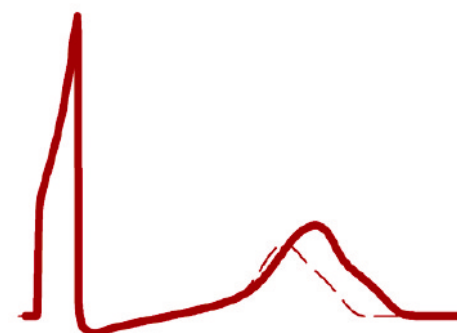
- ✓ Project partners using tools
- ✓ Reducing animal testing

Example: Will this be toxic to the heart?

Input = 2D
structure of a
possible drug



Output =
possible effect
on heart – ECG
result!



Medicines development – the challenge

- We don't know enough about the underlying causes of many diseases – we need this information to develop effective treatments!
- We don't have the tools to study the underlying causes of many diseases

IMI projects are developing tools and establishing networks to study diseases and making new discoveries on the underlying causes of diseases.

Medicines development – an IMI success

Autism...

- affects **1 in 110**
- results in difficulties in **social interaction & communication, repetitive behaviours**
- has a major impact on **families & carers**
- **has no treatments**

Our EU-AIMS project has discovered...

- new insights into **underlying causes** (genes etc.)
- that the brain changes associated with autism **could be reversed**
- **gender differences** in the brains of men and women with autism

- ✓ Patients involved
- ✓ Working with regulators
- ✓ Recognised globally as flagship project



Medicines development – the challenge

- **High Throughput Screening (HTS)** = researchers **screen** large collections of chemical compounds in hunt for molecules that could be **potential drugs** or be used in drug development in other ways.
- **Pharmaceutical companies** have **huge compound collections**, but access to these is usually tightly restricted...
- **Public compound collections** exist, but are **small** and **expertise** is **scattered** across many institutions.

Through its European Lead Factory project, IMI has created a state-of-the-art compound collection & screening centre that is delivering results for academics, SMEs & pharma

Medicines development – an IMI success



Joint European Compound Collection

320 000 cpds
from **7 pharma**
companies

200 000 cpds
from public
partners

European Screening Centre

Advanced, ultra high throughput **screening facilities & expertise** on logistics, medicinal chemistry, etc.

‘Access to the European Lead Factory has fast-forwarded our drug discovery programme in the field of oncology by several years.’ – Huib Ovaa, Netherlands Cancer Institute

‘ELF support & its high quality compound library ... will allow Effecta Pharma to expand its drug discovery efforts for dengue and gives an important boost to tackling this viral disease.’ – Effecta Pharma, UK biotech company

- ✓ Leading role for SMEs
- ✓ Quality & diversity of compounds recognised
- ✓ Award-winning IP solution
- ✓ Happy users!

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- PARTNER SEARCH
- EDUCATION & TRAINING
- SMALL & MEDIUM-SIZED ENTERPRISES
- INTELLECTUAL PROPERTY

THE INNOVATIVE MEDICINES INITIATIVE
The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients.
IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe.
IMI is a joint undertaking between the European Union and the pharmaceutical industry association EFPIA.

IMI LAUNCHES EBOLA+ PROGRAMME
IMI has launched an ambitious programme to accelerate the development of **vaccines and treatments** against **Ebola and related diseases**. The first Call under the Ebola+ programme has a total budget of €280m.

IMI NEWSFLASH

10/11/2014 : Got questions about IMI's #Ebola programme? Check the FAQs and sign up to our webinars on 12/11 and 17/11 <http://t.co/gaZFmWZk1a>

06/11/2014 : IMI #Ebola Topic 5: rapid #diagnostic tests that work in the real world <http://t.co/gaZFmWZk1a>

06/11/2014 : IMI #Ebola Topic 4: using technology to promote #vaccine compliance <http://t.co/gaZFmWZk1a>

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AGENDA

- 03/12/2014 - C-Path and IMI 2nd Annual Meet...
- 26/11/2014 - Bringing health-related life s...
- 18 - 18/11/2014 - Financial Management Workshop ...

more

