Precision Medicine Catapult

Building on UK excellence - Growing the precision medicine industry

April 2015
catapult.org.uk
@PMCatapult
Precision Medicine Catapult – scale, quality, speed

- **National innovation engine for precision medicine**
  - Working with centres of excellence across UK
  - Open for business from 2Q 2015

- **Accelerating introduction of new products & services**
  - Tackling the translational gap via five pillars of activity
  - Maximising economic and health impact

- **Leveraging UK’s lead position for global success**
  - UK has invested >£1bn in relevant research infrastructure
  - Several relevant PM programmes are already underway

- **Ambitious 10-year vision**

  Making the UK the most attractive place in the world in which to develop precision medicine
What are Catapults?

Technology and Innovation Centres
- Tackling the translational gap, bridging research & market
- Catalysing development

Basic research  Development  Commercialisation

Universities
Research Centres, RTOs

Industry (Large & SMEs)
Test&D, CRO
Why a Catapult for Precision Medicine?

- Precision medicine is simple to understand
  - but complex to execute

- Assay industrialisation lab
- National-scale clinical trial network
- Database creation, analytics and decision support
Precision Medicine as we define it

- Molecular mechanism of disease
- Tests/panels for more precise diagnosis
- Rules-based therapies
- More predictable & affordable outcomes

From April 2015 – building the foundations for success

- **Our priorities in the first year**
  - CEO and core team in place
  - Core services up and running
  - 5 year plan agreed and funding secured

- **Extensive UK & global engagement**

- **Source, build & screen a pipeline of projects**
  - UK PM companies
  - Top UK universities
  - Testing & refining models
Building core services – five pillars of activity

• **Business development**
  – Grow the community, scope the PM landscape, gather experts
  – Build an investment readiness unit

• **Technical services for test development**
  – Assess capabilities & gaps
  – Support lab & clinical validation, utility
  – Develop health economics and business cases

• **Clinical trial services**
  – Disease-specific trial networks

• **Data services**
  – Disease-specific databases, data analytics

• **Health challenge partnerships**
  – Secure NHS commitment
Our model for test development

1. Market analysis
2. Assay and platform development
3. Clinical validation
National disease-specific clinical trial networks

Network of hospitals covering 60 million population

- Design and ethics
- Patients
- Samples
- Data

Adaptive clinical trials
Every eligible patient involved
Disease-focused observational databases

Therapeutic focus in areas of unmet need & UK research excellence
- UK cancers 5-25 (e.g., pancreatic, oesophageal)
- Inflammatory diseases
- Infectious diseases
- Areas of commercial interest
Unique model for service delivery - HCPs

- Health Challenge Partnerships
  - NHS improvement partnerships
  - Owned by local health economy partners

Local Online & Physical Hubs → Risk-sharing Incubators → Services Franchise
Broad engagement to help PM industry succeed

- **Science & clinical programme, advisory boards**

- **Two summits in 2015, dates TBC**
  - Disease-specific clinical trial networks
  - Data business models

- **Public campaigns**
  - Value of precision medicine
  - Understanding of and issues around health data

- **Engage stakeholders on frameworks**
  - to support adaptive regulation, reimbursement, adoption
Great progress so far

- **Open for business from April 2015**
  - Independent research organisation

- **Prof Richard Barker OBE appointed Chairman**
  - February 2015
  - CASMI; ex ABPI, McKinsey, IBM, Chiron, Govt adviser

- **Core interim team in place & recruitment ongoing**
  - 2015/16 year of implementation & testing

- **Wide interaction with PM clusters across UK**
  - Discussions on partnerships & delivering national strategy
Perfect timing for precision medicine progress

- **UK research & clinical infrastructure investment**
  - 100,000 genomes project gaining global attention
  - Biobank, pathology nodes, NHS test bed initiative
  - Data analytics – Farr Institutes, Alan Turing Institute

- **Technological progress**
  - Next-generation sequencing, nanotechnology

- **EMA initiative on adaptive pathways**

- **$215m US Precision Medicine initiative**
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Innovate UK
Technology Strategy Board