European Perspectives in Personalised Medicine

12-13 May
The Square, Brussels
Health care hugely improved over the last decades but
- not all patients respond to common drugs (estimated 30-60% responders)
- adverse drug reactions still cause some 5-7% of all hospital admissions
- costly and time consuming to develop new treatments, high failure rate
- the ageing population
- increasing cost of health care
- cost containment for health care spending
- well informed patients putting higher demands on health care providers

Time for change !!!
Health Care Challenges

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"We really need to upgrade our Pharmacy!"
Health care opportunities

- Avalanche of new –omics and molecular information following the sequencing of the human genome

- Translation of –omics from basic to clinical research can bring us better understanding of health and disease

- Which can bring us innovative approaches for the prediction, prevention, treatment and cure of disease

- That can make health care more effective
● Personalised medicine aims at better predicting, preventing and treating or curing diseases based on a patient's individual characteristics

● This emerging field may bring radical changes in healthcare but we are still at the early stages of its development

● But a long term structured approach to foster innovation in this area and to facilitate the rapid uptake of personalised medicine into clinical practice is lacking

"My physician prescribed a customized formulation for me. Here's my DNA sequence."
This conference aims at going through the different stages of the innovation process for personalised medicine.

It aims at identifying future actions needed at the European level within the context of stimulating innovation.

Brings together leaders in their respective fields from the basic researchers through to the end users – the clinicians and the patients.

The programme is based on the conclusions of a series of workshops on personalised medicine organised in 2010.
Personalised medicine - some workshop outcomes

- development will be evolutionary rather than revolutionary...
- paradigm shift towards molecular definition of health and disease...
- link clinical bioinformatics with -omics expertise and clinical research...
- foster uptake of validated -omics technologies in clinical practice ...
- better understanding of disease mechanisms...
- harmonised handling and storage of samples, tissues and data...
The first day of the conference is dedicated to the necessary research and development aspects serving as the basis for personalised medicine approaches.

In the second day focus will be given to the downstream issues of the innovation cycle including the approval processes and the uptake into health care.

Both days will start with a keynote session with prominent speakers active at the heart of personalised medicine. We hope these sessions will provide food for thought and inspire plenty of interactions between audience and panels in the following sessions.
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"I didn’t experience any of the side effects listed in the enclosed literature. Should I be concerned?"
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**R&D the basics**
- Omics Technologies
- Data
- Samples
- Statistics

**R&D stratifying tools**
- Biomarkers Identification
- Qualification
- Validation
- Data modelling tools
- Technical aspects and challenges

**R&D test in human**
- Clinical trials
- Methodologies
- Ethics
- Patient - recruitment

**Towards the market**
- Diagnostics and Therapies
- Approval process – regulatory aspects

**Uptake in health-care**
- Pricing and Reimbursement
- Health economy
- HTA

**In patients**
- Availability and usability in the clinic
- Patient perspective
- Equal treatment
- Ethics
- Training of professionals

**Prediction - Prevention – Treatment - Cure**
Why this conference now?

• Personalised medicine is rapidly emerging area with high potential for Europe

• An area raising questions along the full innovation cycle, it may have large economic impact across public and private sectors and bring great benefits for patients

• Timely in the context of the Innovation Union

• Timely in the context of defining the Common Strategic Framework for future research and innovation activities in the EU
What is the Innovation Union?

A cornerstone of Europe 2020 strategy

Three aspects:

• Globalisation of knowledge production and innovation capacities

• Impact of the crisis on public and private finance, survival of innovative SMEs

• Major challenges to address with reduced means

→ Innovation emergency!
Societal challenges

- Health, well-being and ageing
- Climate change
- Use of natural resources
- Energy security
- Clean transport
- Land use
- ....

What is the Innovation Union?

- Powerful drivers of change in economy and society
- Major global market opportunities
- Requiring EU-scale approaches
- From research to market

New needs → new ideas → new markets
What is the Innovation Union?

A distinctive European approach to innovation

Building on strengths
Focus on **societal challenges**
**Broad concept** of innovation
*Involving all actors*
What is the Innovation Union?

- Partnership with Member States
- Strategic approach
- Whole chain of innovation - from blue sky to market
- Tackling weaknesses
- Under-investment
- Fragmentation
- Framework conditions
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Our expectations
- Personalised medicine is an emerging field which is complex
- We need your active participation in the conference for solution-driven “collective thinking”
- What are the priorities for action at European Level?

Conference output
- Conference report - will be available on the web
- Timely conference in the context of the Innovation Union
- Timely conference for defining priorities for the Common Strategic Framework for future research and innovation activities in the EU
Welcome to
European Perspectives in Personalised Medicine !!