



Innovative Medicines Initiative

Tailored Medicine: the Need for Public-Private Partnerships

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efpia*

Personalized Medicine: Back to Basics...



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THE CARE OF THE PATIENT*

FRANCIS W. PEABODY, M.D.

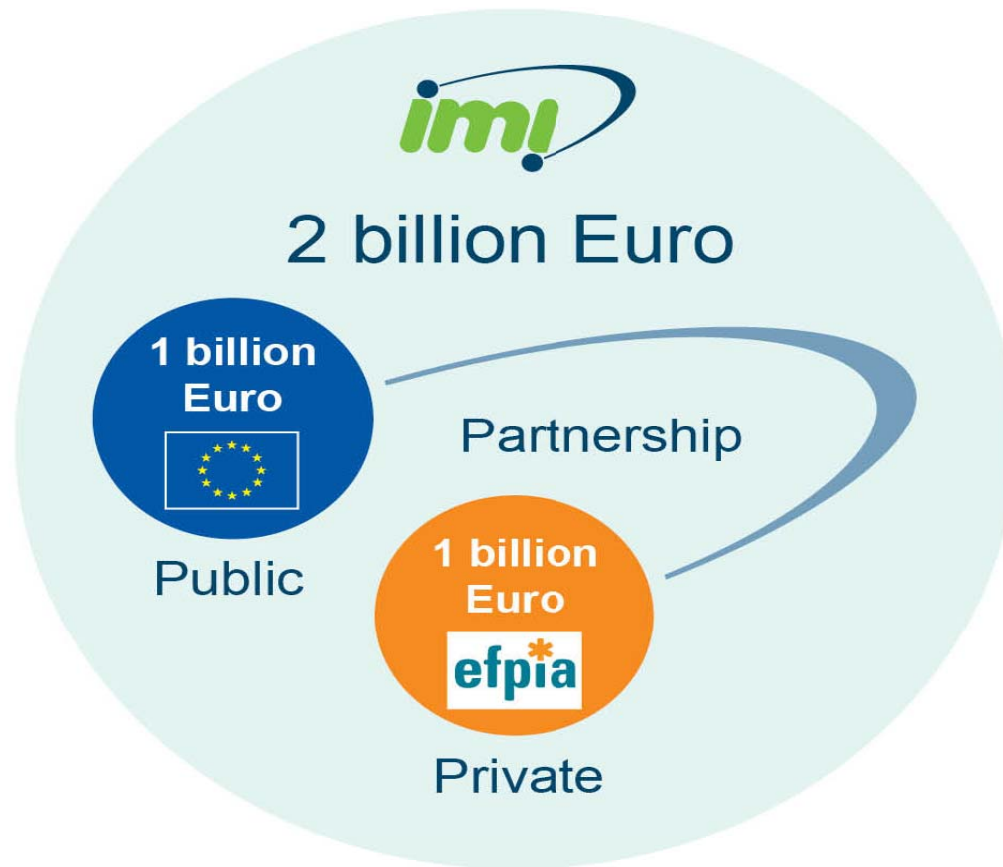
BOSTON

It is probably fortunate that systems of education are constantly under the fire of general criticism, for if education were left solely in the hands of teachers

science to the diagnosis and treatment of disease is only one limited aspect of medical practice. The practice of medicine in its broadest sense includes the whole relationship of the physician with his patient. It is an art, based to an increasing extent on the medical sciences, but comprising much that still remains outside the realm of any science. The art of medicine and the science of medicine are not antagonistic but supple-

“....the care of a patient must be entirely personal.”

The Innovative Medicines Initiative: the Largest PPP in Life Sciences R&D



“Big Pharma” Business Model is Obsolete



- Patents Expiration and Fights
- Generics and « Biosimilars »
- Unpredicted failures at late stage of drug development
- Increased regulatory rules
- Fragmented knowledge

Public-Private Partnership in the Health Sector: the Time is Now !



- The pharmaceutical industry builds new business models based on collaboration and transparency
- Anticipating potential side effects of new drugs is a must
- Tailored medicine requires in-depth knowledge of disease pathways and molecular targets

Key Concepts underlying IMI Projects



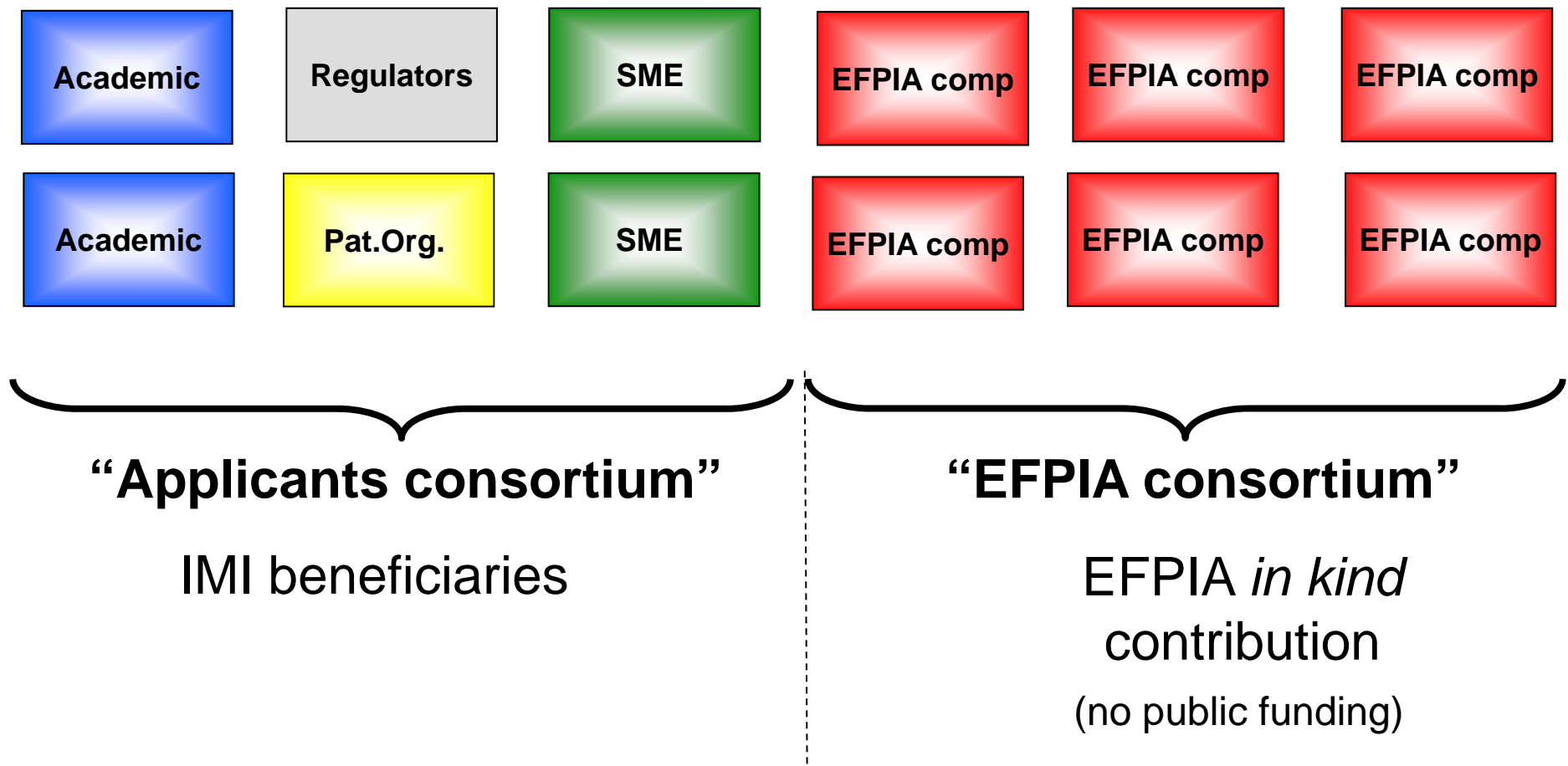
- Pre-competitive research
- Open Innovation
- Patient-tailored therapies

Drug Safety: The Need for Novel Approaches



- Unwanted reactions to targeted therapies
- Late effects
- Individual susceptibility

Overall Structure of Research Projects



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IMI Executive Office as a Neutral Third-Party



- To implement programmes and activities in the common interest of all stakeholders
- To monitor the combined use of public funds and industry investment
- To guarantee fair and reasonable conditions for optimal knowledge exploitation and dissemination

Tailored Medicine Projects



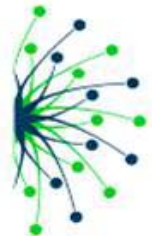
- Cancer biomarkers
- Stratification of asthmatic patients
- Stratification of diabetic patients
- Stratification of patients with brain disorders



Lessons from Ongoing Projects



- **First successes and enthusiasm** provide « **proof-of-concept** » evidence for IMI-type PPPs
- **IMI is more than an industry-academia PPP:** successful involvement of regulatory agencies, patients' organizations and SMEs
- **Boundaries of pre-competitive research and IP rules** sometimes difficult to define
- Need for dedicated tools for **data and knowledge management**



Open Innovation in the Health Sector: Major Challenges Ahead



- Involvement of patients and laypersons
- Frontiers of pre-competitive research
- Indicators of performance
- Management of intellectual property





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THANK YOU !



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Big Pharmas Invest in Asia

