



Personalized Medicine

from a technology assessment
point of view

Zentrum für Technologiefolgen-Abschätzung
Centre d'évaluation des choix technologiques
Centro per la valutazione delle scelte tecnologiche
Centre for Technology Assessment





Technology Assessment

- At large
 - Societal aspects of science and technology
 - Contribution to the formation of public and political opinion
 - Different methodologies such as Expert TA and Participatory TA
 - Widespread in the international community

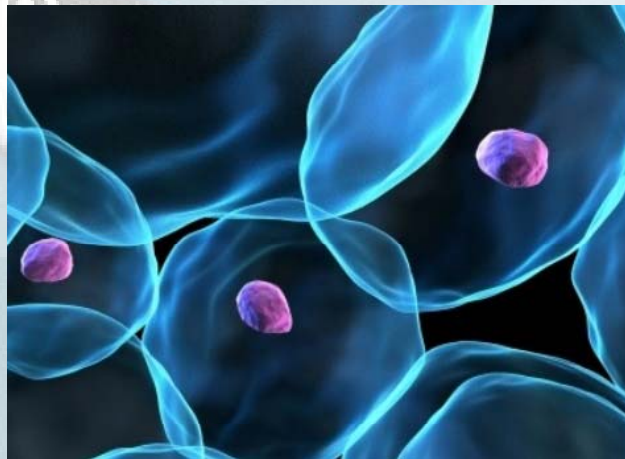
Technology Assessment

- In Switzerland
 - stipulated as a function in the federal law on furtherance of research and innovation
 - in the responsibility of the Swiss Academies of Arts and Sciences
 - Centre for Technology Assessment TA-SWISS is a Centre for Excellence of the Swiss Academies of Arts and Sciences
 - preparing decision-making bases for Parliament and the Federal Council



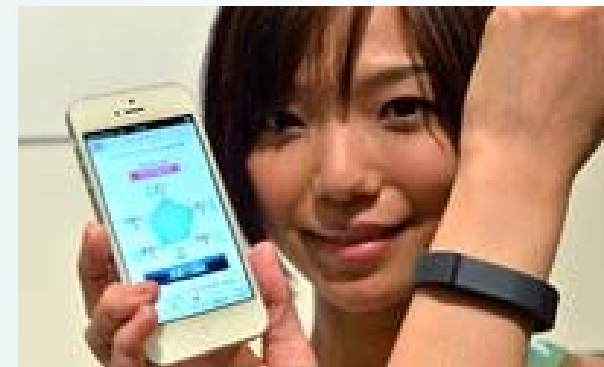
Personalized Medicine – political relevance

- Meeting of two powerful scientific and technical developments
 - biomedicine: «Omics»
 - information technology: «Big Data», «Data Mining», Internet and Social Networks



Chances

- Wealth of new knowledge for medicine
 - such as findings on disease development
- Increasing quality of medical treatments
- Stronger emphasis on maintaining health
- Mobilisation of persons with good health literacy and an affinity towards technology
- New market opportunities for the pharmaceutical and medical technology industry in Switzerland



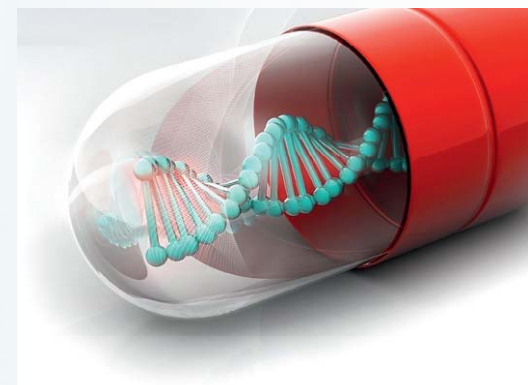
Risks

- Endangering personal rights
- Shifting the boundaries between health and illness
 - normative function
- Tensions in the social security community
- Undue focus on molecular biomarkers
- Cost increase in the health system



Status quo

- Personalized Medicine is part of reality.
- It is not clear if the vision of a comprehensive Personalized Medicine is feasible.
- A comprehensive Personalized Medicine must be regarded in the context of Systems Medicine and a medicine that promotes wellbeing.



Implementation and acceptance

- Personalized Medicine is an ambitious and challenging concept.
- It meets the requirements of persons with good health literacy and an affinity towards technology who are ready to assume individual responsibility.
- Concerned persons and medical experts must be empowered to profit from the new developments.



Impact on the health system

- The specialism will increase further.
- The collaboration of different specialists and organisations becomes more challenging.
- The electronic patient record represents an important prerequisite for the further development of Personalized Medicine.



Challenges for society

- A comprehensive Personalized Medicine requires huge investments.
- The protection of personal rights is a vital concern.
- From an ethical perspective there is need for clarification of questions about fairness and solidarity.



Regulatory framework

- The regulatory framework in Switzerland is not entirely ready for Personalized Medicine.
- Some developments impede the political scope of action.
 - e.g. providers who collect, analyse and exchange personal health data on the internet



Thank you for your attention

