

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



## **Technology Assessment**

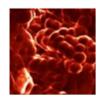
- At large
  - Societal aspects of science and technology
  - Contribution to the formation of public and political opinion
  - Different methodologies such as Expert TA and Participatory TA
  - Widespread in the international community



#### Kennisinfrastructuur

Twintig jaar wetenschapsbeleid: hoe kan het beter?

→ Bekijk projecten



#### Innovatie

Innovaties. Hoe komen ze tot stand?

→ Bekijk projecten

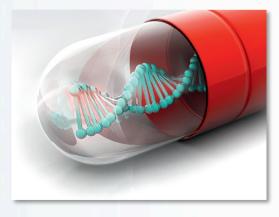
## Personalized Medicine and Technology Assessment

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



## 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.



### 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



# 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, analyze and exchange personal health data on the internet

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# Thank you for your attention

