



## Biophotonics

Mittwoch/Wednesday, 19.03.2014, Muttenz BL

BioPhotonics - Photonics In Life Sciences

# *Welcome*

## **Biophotonics ....**

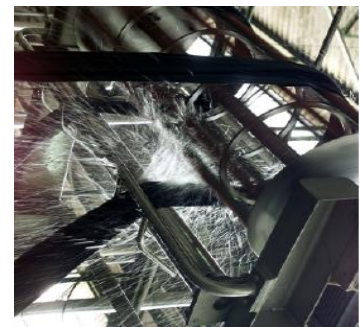
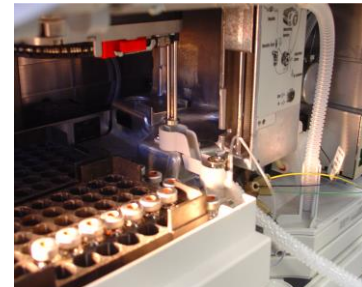
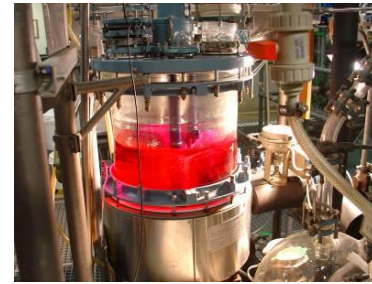
***biophotonics** denotes a combination of [photonics](#) and [biology](#) (= techniques that deal with the interaction between biological items and photons) and ...refers to emission, detection, absorption, reflection, modification, and creation of radiation from biomolecules, cells, tissues, organisms and biomaterials.*

*Areas of application are **life science, medicine, agriculture,** and **environmental sciences.***

Source: Wikipedia

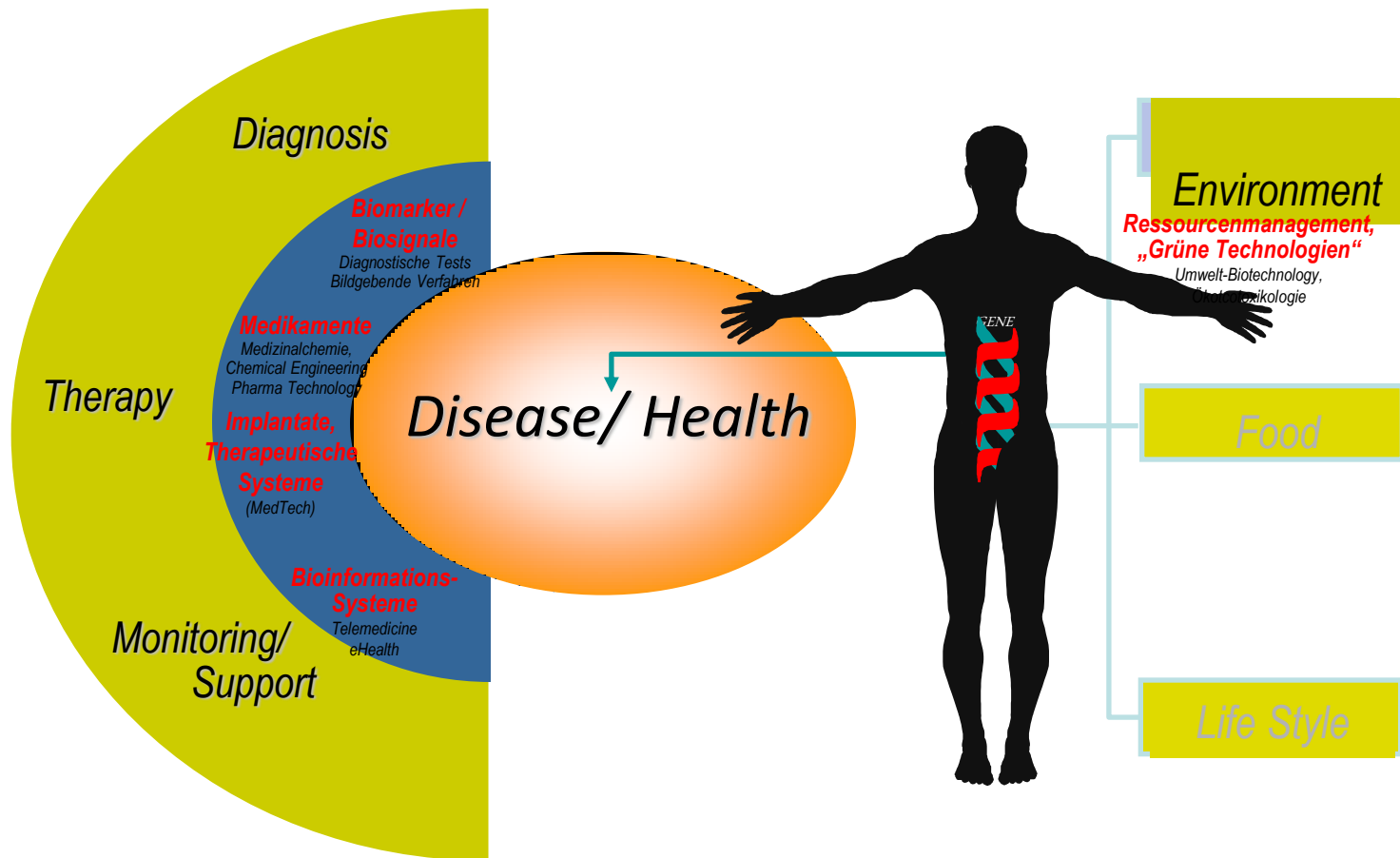
## Life Sciences - Our understanding ...

- Combined insight from **natural sciences** (biology, chemistry, physics), **engineering** and **medicine** to translate it into processes / products for health care and sustainable protection of the environment.
- Life Sciences focus on: **the life and health of humans, animals and the environment.**



# The School of Life Sciences FHNW

holistic view = different technologies, different disciplines



# Our Skills and Competences

3<sup>15</sup> pm : Labtours

## Institute for Chemistry and Bioanalytics



- Biochemistry, Bioanalytics and Diagnostics
- (Bio-)Nanotechnology
- Organic Synthesis and Catalysis
- Instrumental Analytics
- Chemical Engineering

## Institute for Medicinal and Analytical Technologies



- Biosignal Processing and Telemedicine
- Medicinal Systems and Devices
- Implants and Surgical Systems
  - Deep Brain Stimulation
- Invasive Diagnostic Systems

## Institute for Ecopreneurship



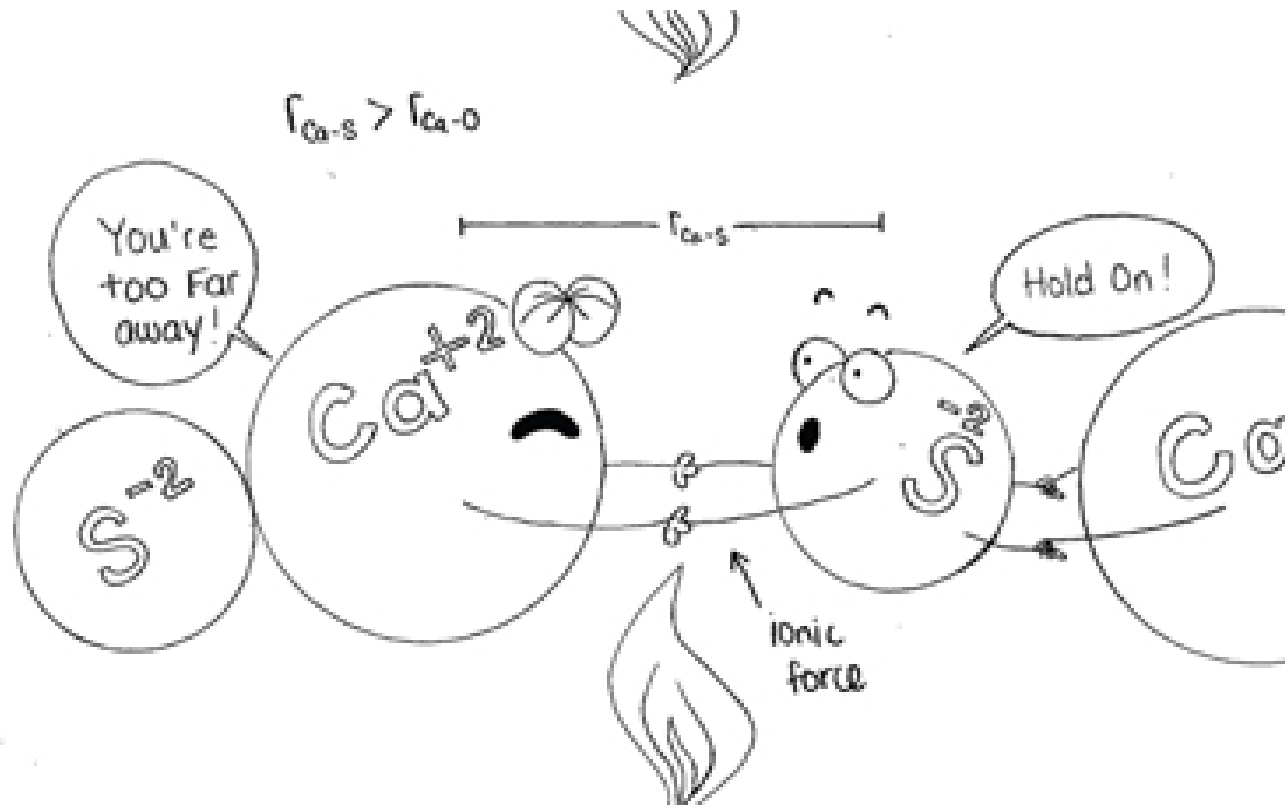
- Cleaner Production and Resource Management
- Environmental (Bio)Technology
  - Environmental Engineering
    - Ecotoxicology
  - Risk Management

## Institute for Pharma Technology



- Drug Formulation and Absorption
- Drug Targeting and Delivery Systems
  - Lipid-based Formulations
- Drug Manufacturing & Production Planning
  - Online-measuring Technologies

*I wish you a successful symposium ...*



*... and many interesting discussions !*