



Fred Balvert
Science communicator / Head of Congress Agency

- Research:
 - Basic
 - Epidemiology
 - Clinical
 - Public health
- Education
 - Medical curriculum
 - Research masters
- Patient care

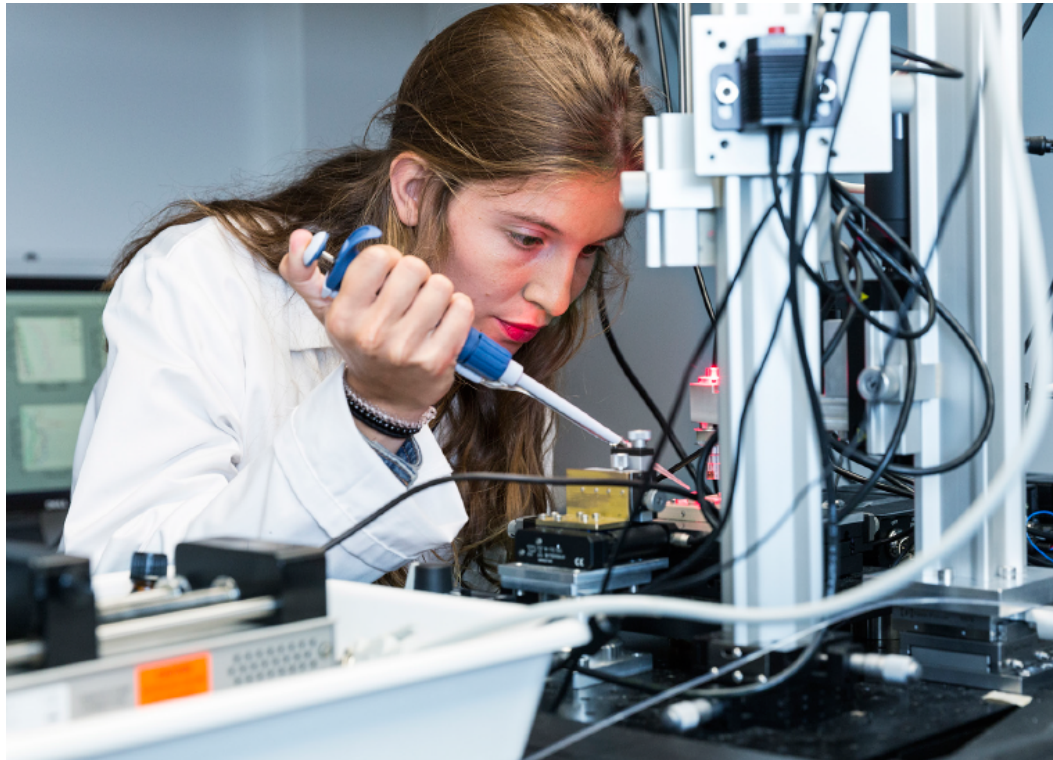


Imaging for research and patient care



Radio therapy and particle therapy





Erasmus MC
Erasmus

Bachelor's degree programme

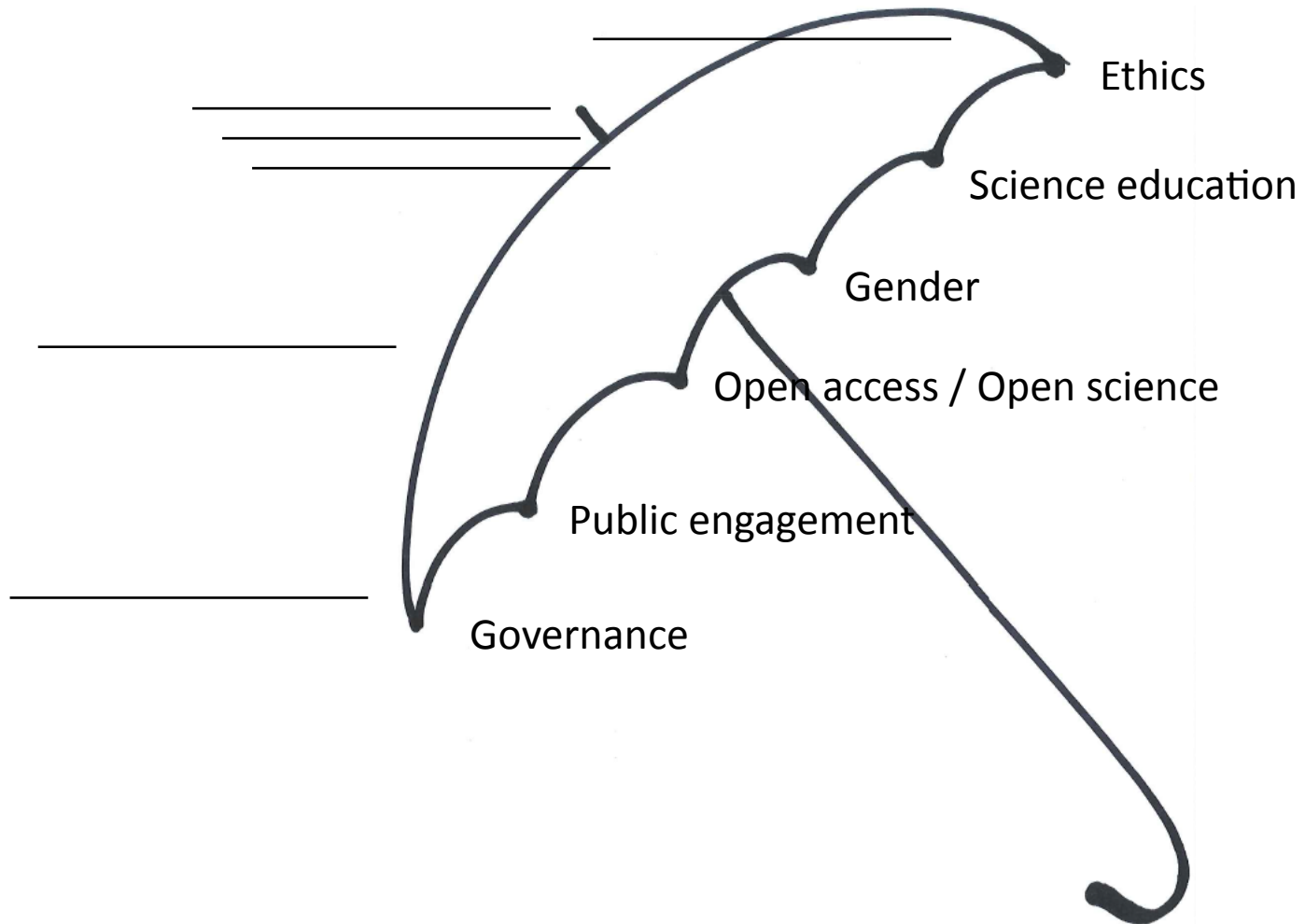
Nanobiology

Integrating Physics with Biomedicine

 TU Delft

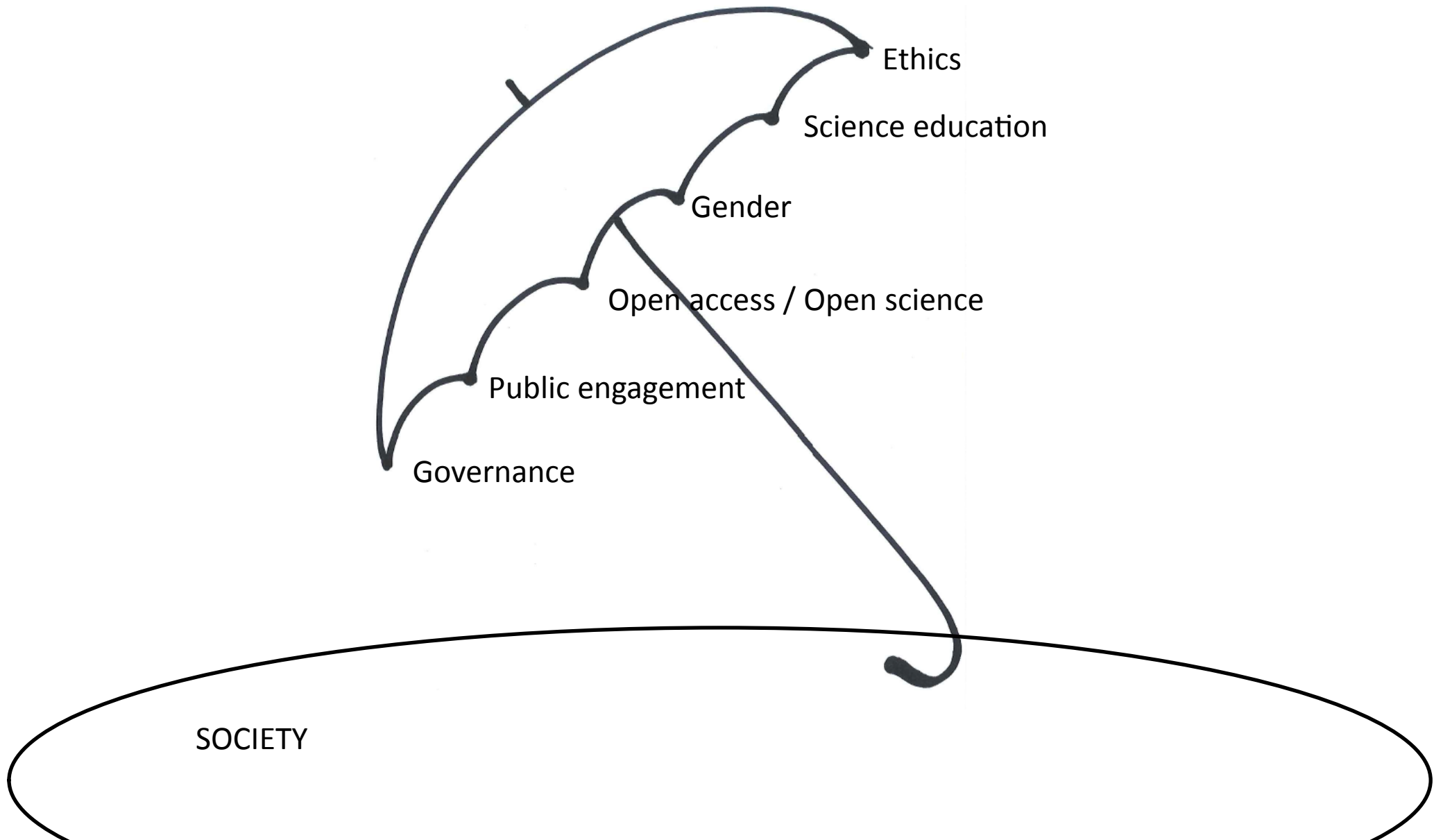
Erasmus

RESPONSIBLE RESEARCH & INNOVATION: AN UMBRELLA IN A EUROPEAN STORM



CROSSCUTTING THEME IN HORIZON2020

RESPONSIBLE RESEARCH & INNOVATION: AN UMBRELLA IN A EUROPEAN STORM



Citizens

Policy makers

Reseachers and innovators

NGO's and
civil organizations

Industry and SME's
(small & medium sized
enterprises)

RRI Policy keys

- **Ethics:** ethical consequences of research in society
- **Science education:** train and educate young generations
- **Gender equality:** organizational and in study design
- **Open access / open science:** sharing and using results
- **Public engagement:** involve all stakeholders in all stages
- **Governance:** policies to make the above possible



SOCIETY

www.rri-tools.eu

Erasmus MC researchers reverse aging

Erasmus MC researchers have found a way to turn back aging. They have published their spectacular discovery in the leading scientific journal *Cell*.

By giving old mice a substance developed by the researchers, the mice became fitter and more alert, their coat of fur became fuller again, and their organ function improved. The substance is a peptide that disrupts the binding between two proteins.

Ailments

Researchers had previously already found a way to slow down aging. "But turning back time proved to be very difficult", says Peter de Keizer, a researcher of aging at Erasmus MC's department of Molecular Genetics and major participant in this study. This discovery can help in further studies on healthy aging and how people can become healthier once they have ailments. Moreover, it appears to work well for certain end stage cancers and helps in the search for treatments for these cancers.

Key player in the study is Proxofim (FOXO4-DRI), a substance developed by the researchers themselves. It disrupts the binding between the proteins FOXO4 and p53. In contrast to existing substances used by researcher to intervene with aging, this substance was found to have no adverse effects on the health of the mice. "The platelet count and the liver function, for example, remained normal."

Senescent cells

Proxofim tackles cells that play a role in aging. These are called senescent cells, and are cells that have ceased to divide but are not really dead. "In fact, their metabolism does continue, which means that they continue to secrete all kinds of proteins, including inflammatory cytokines. These in turn

