

The logo for the Euroscience Open Forum 2018 in Toulouse is a large red hexagon with a white border. Inside the hexagon, the text "ESOF" is written in large white letters, "2018" in smaller white letters, and "TOULOUSE" in even smaller white letters. Surrounding this central hexagon are several smaller hexagons of various colors (blue, yellow, purple, pink, green) containing white icons representing different scientific fields: a molecular structure, a network, a chemical structure, an atom, a rocket, and a DNA helix. A red molecular structure icon is also positioned to the right of the central hexagon.

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# The Values of biomedical innovation

Organised by **Dr Aurelie Mahalatchimy**, Prof  
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# INTRODUCTION TO THE SESSION ON THE VALUES OF BIOMEDICAL INNOVATION

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## THE INITIAL OBSERVATION

**Frequently in the news media: Breakthroughs in biomedicine**

- ✓ hope to patients, profit to companies, reputation to countries and governments

**Examples**

- ✓ gene editing (notably CRISPR-CAS 9)
- ✓ T-Cell immunotherapies for leukaemia
- ✓ Future 3D bio-printing of entire complex tissues or organs, etc...

**Held up as game-changing transformations in the practice of medicine**

**Medicines promised to become more personalised, more precise, more cellular, more...**

## WHAT IS BIOMEDICAL INNOVATION?

**No given definition and wish of a wide definition to avoid restriction in our discussion**

### **Examples**

- ✓ **bioprinting, regenerative medicine, biomaterials, nanomedicine, gene editing, stem cell therapies and other forms of treatment based on life sciences**

### **Criteria?**

- ✓ **championed as potential cures for many medical conditions**
- ✓ **For health and wealth**
  - **prioritised by governments' life science wealth creation strategies**

### **For this discussion**

- ✓ **An innovative procedure, technique or product based on human or animal biological elements, with a high level of protection of human health and promoting economic competitiveness**

## TENSION AROUND VALUES

**Trade-off between innovation and commerce vs. safety and efficacy**

**Stakeholders attribute value to innovations from different perspectives,  
motivated by diverging interests**



**Do biomedical innovations' achievements and visions produce optimal  
scientific and medical innovations for society at large?**

## EXAMPLES OF ISSUES FOR DISCUSSION

**Are strengthened risk and safety standards diminishing the value of enabling the broadest possible range of beneficial biomedical innovation?**

**Are proliferating exemptions to established regulation, compassionate use, 'breakthrough' and 'promising' designations, and unmet need incentives, distorting a fair marketplace and fair financial value for new products?**

**How are national and global health priorities addressed by governments' and companies' biomedical research agendas? Are values of prevention (e.g. vaccines, genomics) in conflict with those of treatment and cure (e.g. cell and gene therapy)?**

**Would health inequalities be exacerbated or could they be resolved, by the development of biomedical innovation? Producers continually appeal to increasing 'patient access' – does this promote equitable access according to need?**

**Are ethical issues influencing the given or perceived values of biomedical innovation? Is there an applicable patients' right to innovation?**