



## Ethics of Engineering Life

Roma, 26 - 27 settembre 2022



La Pontificia Accademia per la Vita, il NCCR Molecular Systems Engineering (Università di Basilea), il Centro di ricerca ETH (Zurigo, Svizzera), l'Ospedale Pediatrico Bambino Gesù di Roma, organizzano la Prima conferenza internazionale Ethics of Engineering Life, 26 -27 settembre 2022 (Palazzo Pio, Piazza Pia 3 – 00193 Roma)

Apertura dei lavori: Mons. Vincenzo Paglia, Presidente della Pontificia Accademia per la Vita; Prof. Ralf Stutzki, NCCR; prof. Daniel Müller (Svizzer).

L'ingegneria dei sistemi molecolari e cellulari per applicazioni cliniche, utilizza le competenze acquisite in tutto il mondo negli ultimi 10 anni. Procedure cliniche innovative e il ripristino delle funzioni corporee sono realizzati attraverso lo sviluppo di terapie geniche e cellulari. I tentativi riusciti includono il ripristino della vista, il controllo di disordini metabolici e la crescita di tessuti e organi in laboratorio (organoidi). A lungo termine tali approcci di ingegnerizzazione dei sistemi aiuteranno a curare meglio le patologie. Ma i metodi per modificare, correggere e/o integrare il genoma

dei pazienti potrebbero essere utilizzati anche per migliorare lo stile di vita di una persona, o pure per obiettivi discutibili e problematici. Per affrontare gli aspetti etici di tali tecnologie innovative, la Prima conferenza internazionale Ethics of Engineering Life, riunisce alcuni degli esperti interessati allo sviluppo degli approcci che consentono di modificare e controllare i sistemi viventi, i clinici che applicano tali procedure, esperti di etica, filosofi, comunicatori, artisti e altri rappresentanti della nostra società globale.

<https://iceel.info/>

## PROGRAMMA / PROGRAM

1st International Conference Ethics of Engineering Life  
Vatican, Rome - September 26-27, 2022

Monday, September 26

09:00 – 09:20 OPENING

- Welcome, Renzo Pegoraro
- Welcome note, Vincenzo Paglia, President PAL
- Ethics and Engineering Life, introduction and overview, Ralf Stutzki
- Engineering Molecular Systems, introduction and overview, Daniel Müller

09:20 – 10:10 ETHICS AND GENE-BASED ENGINEERING Chair: Renzo Pegoraro

- Gene-editing: ethical and legal challenges, Laura Palazzani, Full professor at LUMSA (Roma), vice-president of the Italian National Bioethic Committee, member of EGE (European Group on Ethics in Science and New Technologies)
- Gene-based therapy: delivering on the promise? Luk Vandenberghe, Harvard Medical School

10:40 – 11:30 ETHICS AND CELL-BASED ENGINEERING Chair: Daniel Müller

- Engineering cellular systems: modify, repair, but not at all costs. Which ethical benchmarks? Marie-Jo Thiel, University of Strasbourg
- Cell-based therapies of the future, Martin Fussenegger, ETH Zürich

11:30 – 12:20 ETHICS AND ORGANOID-BASED ENGINEERING Chair: Daniel Müller

- Exploring the ethics of gastruloids, Nienke de Graef, Leiden University Medical Center

- Stem cell-derived organoids model human disease, Hans Clevers, Roche Pharma

14:00 – 14:40 YOUNG RESEARCHERS' SESSION part I Chair: Carlo Casalone

14:40 – 15:30 PANDEMIC – LESSONS LEARNED Chair: Ana Borovecki

- Medicine changes fast. Medicine changes in the instant: healthcare professionals and COVID-19, Montserrat Esquerda Aresté, Ramon Llull University

- COVID-19 and vaccines: what did we learn?, Emanuele Cozzi, University of Padua

15:45– 16:35 REGULATION & COMMUNICATION Chair: Alberto Tozzi

- Engineering life and legal regulation: from principles to ex post evaluation, Federico de Montalvo Jääskeläinen, Comillas Pontifical University

- The challenge of communicating bioengineering in a harsh debate, Marco Cattaneo, National Geographic

16:35 – 17:45. RELIGIOUS VIEWS ON ENGINEERING LIFE

PANEL Moderators: Renzo and Ralf

Emmanuel Agius, Christianity; University of Malta

Andrea Genazzani, Judaism; University of Pisa

Guido Giordano, Buddhism; Roma Tre University

Ilhan Ilkilic, Islam; Istanbul University

18:20 – 19:00 Engineering Life and Us – an ArtSci project, Michel Comte

Tuesday, September 27

09:15 – 10:30 ENGINEERING LIVING SYSTEMS AND BIOETHICAL PRINCIPLES Chair: Laura Palazzani

- The conundrum of translational ethics – Engineering gaps between theories and practices, Henk ten Have, Duquesne University

- Vision restoration, Botond Roska, Institute of Molecular and Clinical Ophthalmology Basel

- Ethical implications of digital twins, Alberto E. Tozzi, Bambino Gesù Children's Hospital

11:00 – 11:50 GLOBAL PERSPECTIVES Chair: Henk ten Have

- Unity in diversity: how development of biotechnology can serve the needs of all, Kevin Fitzgerald, Creighton University

- Global bioethics and the new possibilities for engineering life, Ana Borovecki, University of Zagreb

11:50 – 12:30 YOUNG SCIENTISTS’ SESSION part II Chair: Carlo Casalone

14:00 – 16:00 FOCUS PANEL Chairs: Kevin Fitzgerald and Ana Borovecki  
- GOVERNANCE

Ethical requirement for global governance and oversight of gene editing, Jacques Simpire, University of Ouagadougou

- PATIENTS VIEW

User experiences without scientific basis

How do you deal with experiences that you have gained as a patient, caretaker or equipment supplier in daily practice without being supported by scientific research and evidence?, Jack Janssen, Dutsch Najjar Foundation

- COMMUNICATION

The media’s role in education and equality of access to emerging medical technology, Jennifer Copestake, Vatican Bureau, Salt+Light Television

- MEDICINE

Gene therapy: clinical perspective, Hendrik Scholl, Institute of Molecular and Clinical Ophthalmology Basel

- Corporation

Opportunities and challenges in gene and cell therapy, Tim Hunt, Alliance for Regenerative Medicine

16:00 END OF ONLINE STREAMING DAY 2

16:30 – 18:30 ETHICS STATEMENT SESSION Round table

Wednesday, September 28

10:00 – 12:00 ATTENDANCE OF THE PUBLIC AUDIENCE OF THE POPE



## ATTENDANCE OF THE PUBLIC AUDIENCE OF THE POPE

### PRESS REVIEW

Vatican News Italian - September 27

Vatican News Spanish - September 27

Vatican News Lietuviu - September 27

Religion Digital - September 27 2022

Notimerica (Europa Press) - September 27 2022

Ekai.PI - September 27 2022

Catholic News Service - September 26 2022

Agensir - September 26 2022

Kerknet.be - September 26 2022

Mirage News - 25 September 2022

Twitter - 25 September 2022

Aleteia - 25 September 2022

Photogallery - September 27 2022

Photogallery - September 26 2022



