

**Arti Ahluwalia** - Università di Pisa  
**Andrea Aliverti** - Politecnico di Milano  
**Anna Maria Bassi** - Università di Genova  
**Susi Burgalassi** - Università di Pisa  
**Maria Grazia Cascone** - Università di Pisa  
**Valeria Chiono** - Politecnico di Torino  
**Gianluca Ciardelli** - Politecnico di Torino  
**Raffaella Colombo** - Università di Pavia  
**Michele Conti** - Università di Pavia  
**Marco Agostino Deriu** - Politecnico di Torino  
**Adelaide Dura** - Joint Research Centre  
**Chantra Eskes** - Swiss 3R Center  
**Gianfranco Fiore** - Politecnico di Milano  
**Nikolas Gaio** - BI/OND  
**Angelo Gazzano** - Università di Pisa  
**Simone Lapi** - Biobanca Pisa  
**Rodolfo Lorenzini** - Istituto Superiore Sanità  
**Susanna Louhimies** - DG ENV Bruxelles  
**Alberto Manganaro** - Kode Chemoinformatics  
**Sara Mantero** - Politecnico di Milano  
**Franco Manti** - Università di Genova  
**Manuela Marcoli** - Università di Genova  
**Francesco Nevelli** - Merck Group  
**Giovanni Nicoletti** - Università di Pavia  
**Michele Panzera** - Università di Messina  
**Barbara Parodi** - IRCSS San Martino di Genova  
**Paola Petrini** - Politecnico di Milano  
**Luigi Preziosi** - Politecnico di Torino  
**Ugo Santucci** - Ministero della Salute  
**Salvatore Simmini** - StemCell Technologies  
**Gaetano Valenza** - Università di Pisa



## Centro 3R

The **Italian Interuniversity Center for the promotion of 3Rs principles** in teaching and research (Centro 3R) was established in early 2018. It currently boasts over 250 members and brings together a wide range of expertise in disciplines such as pharmacology, engineering, law, biology, medicine and philosophy.

A characteristic of the Centro 3R is its inclusivity and its **scientific**, humane and evidence-based approach to the question of experimentation in all fields of research. In fact, acknowledging that animal research is still an important way of building knowledge on unanswered biological questions, it seeks to sensitise researchers to humane methods and humane ways of approaching science. Thanks to this **inclusive** and **open** approach, it is becoming a point of reference for research and teaching resources in Italian academia and a platform for discussions.



## 2° Annual Meeting 3Rs in Italian Universities



**June 20 -21, 2019**

Aula Magna  
Palazzo dell'Università di Genova  
Via Balbi 5

 [www.centro3r.it](http://www.centro3r.it)

 [info@centro3r.it](mailto:info@centro3r.it)

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# 20 June 2019

8.30 **Registration**

9.30 **Opening Ceremony**

*Welcome addresses*

Prof. Paolo Comanducci, Rector, University of Genova, Prof. Nicoletta Di Francesco, Vice-Rector University of Pisa, Guido Cavalletti, delegate University of Milan-Bicocca.

10.00 **Topic: Keynote**

- Arti Ahluwalia: Introductory and welcome remarks
- Susanna Louhimies: Directive 2010/63/EU: progress, challenges and future directions

10.50 *Coffee Break*

11.20 **Topic: Involvement of national and international Institutions in 3R implementation**

- Ugo Santucci - Ministero della Salute
- Delegate from MIUR
- Rodolfo Lorenzini, Ist. Superiore di Sanità
- Adelaide Dura: 3Rs in education and training

12.20 **Topic: Reduction and Refinement: scientific, ethical and legal issues**

- Angelo Gazzano: Refinement of laboratory animal welfare
- Michele Panzera: Neurophysiological models of animal sentience
- Franco Manti: For an ethical experimentation: Moral arguments in support of 3Rs

13.20 *Light Lunch and Young Poster Session*

14.30 **Topic: Companies in supporting 3R principles**

- Salvatore Simmini: Discovering Organoids: The Journey Of 3D Culture Systems
- Nikolas Gaio: Versatile Organ-on-chip platforms
- Francesco Nevelli: Renewing Potency Assays
- Alberto Manganaro: QSAR models and their practical use, the experience of Kode

15.30 **Topic: In Silico Models: Toxicology & Efficacy of Drugs and Chemicals**

- Marco Agostino Deriu: Computational molecular modelling in rational drug design and discovery
- Gaetano Valenza: From statistical uncertainty to machine learning through in-silico models

16.10 **Topic: Application of Reduction principles in animal testing**

- Raffaella Colombo: A new in vitro gastrointestinal system to evaluate the effect of exogenous molecules
- Luigi Preziosi: How can Mathematical Modelling Support Cancer Research
- Manuela Marcoli: Centro 3R Organ and Tissue Sharing Project

17.10 **Topic: Application of Refinement principles in animal testing**

- Gianfranco Beniamino Fiore: Advanced culture systems for ex-vivo vascular tissue conditioning
- Michele Conti: Biomechanical simulations and 3D printing for endovascular device testing
- Giovanni Nicoletti: Platelet rich plasma enhancement of ex-vivo human skin cultures

17.50 *Cocktail and poster evaluation*

## SCIENTIFIC AND ORGANISING COMMITTEE

**Anna Maria Bassi, Arti Ahluwalia**

Susi Burgalassi, Valeria Chiono, Michele Conti, Adelaide Dura, Susanna Louhimies, Sara Mantero, Franco Manti, Manuela Marcoli, Diana Massai, Laura Pastorino, Paola Petrini, Susanna Penco, Anna Pittaluga, Ilaria Rizzato, Sonia Scarfi, Livia Visai.

# 21 June 2019

9.30 **Keynote Lecture**

- Chantra Eskes: Implementation through research, education and communication

9.50 **Topic: Disease Models Using Human Cells, Tissues and Organs**

- Barbara Parodi: Biobanking and biomolecular resource research infrastructure: the Italian node
- Simone Lapi: Pisa Biobank and Tuscany Regional Biorepository
- Gianluca Ciardelli: On the transferability of tissue engineering technologies to the design of tissue models

10.50 *Coffee Break and Young Poster Session*

11.20 **Round table - Role of 3R Centers**

12.10 *Young Poster Session Award*

12.50 *Light Lunch*

14.00 **Topic: Application of Replacement in research**

- Maria Grazia Cascone: Tissue engineered constructs as animal replacements
- Sara Mantero: Bioreactors as physiological-like in vitro models
- Paola Petrini: Hydrogel-based platforms to mimic in vivo drug diffusion: a multicenter research
- Susi Burgalassi: Reconstituted epithelial corneal tissues for evaluation of drug delivery

15.20 **Topic: Commitment of Centro 3R in University training**

- Arti Ahluwalia: Inserting 3Rs in core curricula, hurdles & achievements
- Anna Maria Bassi: Teaching and Training in Substitutive Approaches to Animal Testing: Commitment of University of Genova.
- Valeria Chiono: Approaching 3R teaching in biomedical engineering
- Andrea Aliverti: Ethical issues in Ph.D. training at the Polytechnic of Milan

16.20 **Centro 3R Council Meeting**