

SCIENTIFIC RESEARCH AND THE 3R'S PRINCIPLE

Educational objectives: the interdisciplinary course aims to provide knowledge on the topic of research within the 3Rs whose principles concern the ethical aspects of the use of animals in scientific experiments. The 3Rs are the initial letters of REDUCTION: reduction in the number of animals used for a specific study; REFINEMENT: improvement of experimental designs to reduce stress and suffering to animals; REPLACEMENT: replacement (even partial) of animal testing with alternative methods of comparable validity. These three words briefly describe the ethical principles that researchers should respect when undertaking animal experiments. The course therefore aims to present the main innovative applications of research within the 3Rs in order to promote a responsible experimentation. (5 CFU)

PROGRAM

Monday 17 June 2024 - proff. M.L Amadio, C. Lanni, and L. Visai, University of Pavia
10.00-12.00 AM: *"3R: Reduction, Refinement and Replacement and their applications"*

Tuesday 18 June 2024- 2 international invited speakers:

Laura Gribaldo (Joint Research Centre (JRC), Ispra, Varese, IT)

10.00-11.00 AM: Innovative models in biomedical research

Jeffrey Brown (Ethical Treatment of Animals (PETA) Foundation. London, UK)

11.00-12.00 AM: What to know about EMA, EFSA, and replacing animals in drug and food testing

Wednesday 19 June 2024 - Prof. Daniela Ovadia, University of Pavia

10.00-12.00 AM: Part 1 *"Basic principles of ethics in animal research"*

14.00-16.00 PM: Part 2 *"Basic principles of ethics in animal research"*

Thursday 20 June 2024 - Prof. Andrea Ferrigno, University of Pavia

10.00-12.00 AM: Part 1 *"In vivo testing protocols in order to reduce the number of animals"*

14.00-16.00 PM: Part 2 *"In vivo testing protocols in order to reduce the number of animals"*

Monday 24 June 2024 - Prof. Virginie Sottile, University of Pavia

10.00-12.00 AM: *"3D models of tissue development ex vivo."*

Tuesday 25 June 2024 - Prof. Gabriele Ceccarelli, University of Pavia

10.00-12.00 AM: *"Current tissue engineering approaches for mesodermal tissue regeneration: an overview"*

Wednesday 26 June 2024 - Prof. Michele Conti, University of Pavia

10.00- 12.00 AM: *"3D modeling, In-silico trials, and digital twins for 3R"*

Thursday 27 June 2024 - Prof. Nora Bloise, University of Pavia

10.00-12.00 AM: *"From 2D monolayers to complex 3D cell cultures: applications in cancer research and regenerative medicine"*



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