European Commission

Draft Programme

JRC Summer School 2019: Non-Animal Approaches in Science

Challenges & Future Directions

JRC Ispra
21-24 May
2019

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Joint Research Centre

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JRC Summer School 2019: Non-Animal Approaches in Science Challenges & Future Directions

Day 1 - Tuesday, 21 May 2019

Arrival at the JRC and setting up posters

12:00-13:00 Registration and welcome lunch

13:00–13:30 **Welcome and introduction**
E. Anklam, Director - Health, Consumers and Reference Materials (JRC)
M. Whelan, Head of Unit - Chemical Safety and Alternative Methods (JRC)

13:30–13:45 **Summer School organisation**
B. Landesmann (JRC)

SESSION 1: Replacement of animals used for scientific purposes – legal obligations and state of play in the EU

chairs: B. Landesmann & E. Berggren (JRC)

13:45-14:30 **Legal obligations and state of play in the European Union**
S. Louhimies (DG Environment)

14:30-15:15 **Legal obligations and state of play in North America**
C. Chandrasekera (CaCVAM, Canada)

15:15-15:45 Coffee break

15.45-16:30 **Strengths and limitations of animal and alternative approaches**
L. Gribaldo & F. Pistollato (JRC)

16:30-17:30 **Group meetings to prepare the Friday debates**

17:30-19:00 Aperitivo

Day 2 - Wednesday, 22 May 2019

SESSION 2: In vitro methods and their applications

chair: A. Hanberg (Karolinska Institutet, Sweden)

09:00-09:20 **Pluripotent stem cells and developmental neurotoxicity**
A. Price & F. Pistollato (JRC)

09:20-09:40 **Are your non-animal cultures really animal-free?**
C. Chandrasekera (CaCVAM, Canada) & S. Coecke (JRC)

09:40-10:00 **Exploiting 3D cultures to model disease-specific cellular microenvironments**
C. Brito (IBET, Portugal)

10:00-10:20 **The human-on-a-chip**
P. Loskill (Fraunhofer Institute, Germany)

10:20-10:30 **Final thoughts and reflections by the chair**

10:30-11:00 Coffee break

SESSION 3: Computational methods and their applications

chair: K. Dreij (Karolinska Institutet, Sweden)

11:00-11:20 **Overview of in silico methods used in predictive toxicology and drug development**
A. Worth & A. Paini (JRC)

11:20-11:40 **Threshold of (eco-)toxicological concern for aquatic toxicity**
A. Kienzler (JRC)

11:40-12:00 **Biokinetic modelling to relate internal and external exposure**
N. Kramer (IRAS, Utrecht University, NL)

12:00-12:20 **Computational modelling in heart disease and therapies**
B. Rodriguez (University of Oxford, UK)

12:20-12:30 **Final thoughts and reflections by the chair**

12:30-13:30 Lunch

13:30-15:00 **World Café** (have coffee and discuss together with the speakers from the morning session)

14:30 -16:30 POSTER SESSION I

15:00-15:30 **Flash (3 min) poster presentations**
chairs: L. Wiklund (Karolinska Institutet, Sweden) & E. Bernasconi (JRC)

15:30-16:30 **Poster session**

16:30 -18:00 POSTER SESSION II

16:30-17:00 **Flash (3 min) poster presentations**
chairs: L. Wiklund (Karolinska Institutet, Sweden) & E. Bernasconi (JRC)

17:00-18:00 **Poster session**

19:00-22:00 **Quiz evening** "Alternative solutions - more answers than questions" and finger food

Day 3 - Thursday, 23 May 2019

SESSION 4: From methods to integrated solutions

chair: J. Barroso (JRC)

09:00-09:20 **Biomarkers and mode of action in pharma development**
I. Cotgreave (Swetox, Sweden)

09:20-09:40 **High throughput screening for toxicity testing**
J. Sund, T. Palosaari & D. Carpi (JRC)

09:40-10:00 **Adverse outcome pathways and integrated approaches**
B. Landesmann & A. Richarz (JRC)

10:00-10:20 **The regulatory uptake of combined methods for skin sensitisation**
S. Casati & D. Asturiol (JRC)

10:20-10:30 **Final thoughts and reflections by the chair**

10:30-11:00 Coffee break

SESSION 5: Alternative methods and future challenges

chair: R. Corvi (JRC)

11:00-11:20 **Genomics data for public health and possible applications on chemicals safety**
M. Bale (Genomics England, UK)

11:20-11:40 **Alternatives to understand respiratory tract disease**
R. Gosens (University of Groningen, NL)

11:40-12:00 **The toxicologists' guide to endocrine disrupters**
S. Munn & E. Grignard (JRC)

12:00-12:20 **Convergence between disease/toxicity and human/environment**
F. Madia & S. Bopp (JRC)

12:20-12:30 **Final thoughts and reflections by the chair**

12:30-13:30 Lunch

13:30-15:30 **World Café** (have coffee and discuss together with the speakers from the morning session)

15:30-18:00 **Laboratory visits and preparation for the Friday debates**

19:00–22:00 Social dinner at Villa Quassa, Ispra

Day 4 - Friday, 24 May 2019

SESSION 6: Debates

chairs: E. Berggren & B. Landesmann (JRC)

09:00-09:50	**Debate I: Are legal obligations necessary to support the 3Rs?**
10:00-10:50	**Debate II: Can computational methods provide stand-alone solutions?**
10:50-11:20	Coffee break
11:20-12:10	**Debate III: Do adverse outcome pathways have a future for regulatory toxicology?**
12:20-13:10	**Debate IV: Is full animal replacement possible?**
13:10-13:30	**Poster awards ceremony & concluding remarks** *M. Whelan & E. Berggren (JRC)*
13:30-14:30	Lunch
14:45	Departure

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