

Breeding the Future: Genomics, Epigenomics and Societal Acceptability for Sustainability in Livestock

15 April 2026, Wednesday

8:30-18:30

University Foundation - Rue d'Egmont 11, Brussels, Belgium

Sessions:

8:30: **Session 1 - From Lab to Legitimacy: Social Acceptance of New Breeding Technologies**

- *Beyond 'experts only': on the importance of stakeholder and public engagement in the debate on innovations in breeding*, Franck Meijboom (UU)
- *Make it make sense!: From citizen engagement to useful guidance*, Rasmus Mikkelsen (DemoX)

Invited speakers & Panel discussion

10:00 Coffee break

10:30: **Session 2 - Editing for Resilience and Welfare: Scientific Readiness and Policy Implications** & Panel discussion

- *Gene-Edited SLICK Sheep: A Case Study in Climate-Resilient Breeding*, Simon Lillico (UEDIN)
- *Epigenome editing in animal production: A prospective review*, Guillaume Devailly (INRAE)
- *The management of rare alleles, including GE, in breeding schemes*, Theo Meuwissen (NMBU)
- *Dual-purpose lines simulation of genomic edition*, Edward Chuang (GABI)

12:30: Lunch break

13:30: **Session 3 - Epigenetics: A new lever to Resilience and Efficiency?**

- *The RUMIGEN EpiChip, a sensor of environmental and breeding practices*, Gabriel Costa Monteiro Moreira (INRAE)
- *Epigenetic dynamics in chicken brain throughout animal life*, Carlos Guerrero Bosagna
- *The sperm epigenome: role in male fertility, transmission and impact on offspring phenotype*, H el ene Kiefer (INRAE)
- *Molecular fingerprints of pig male reproduction from omics data*, Pedro Sa (WUR)
- *Integration of GERoNIMO omics data to reveal details about the genetic architecture behind efficiency-related traits*, Peter Karlskov-Mortensen (UCPH)
- *The RUMIGEN EpiChip: integration of epigenetics into dairy cow selection*, Marie-Pierre Sanchez (INRAE)
- *Tagging non-genetic inheritance using the transmissibility models*, Ingrid David (INRAE)

15:30: Coffee break

16:00: Session 4 – Next-Generation Selection: *Integrating Genomics, Epigenetics and Adaptability*

- *Selection, genetic load and diversity*, Theo Meuwissen (NMBU)
- *Trade-offs - evolution and use in breeding strategies*, Mario Calus (WU)
- *Including methylation in genomic prediction*, Ioanna Vourlaki (IRTA) & Lucas Ayres (WUR)
- *Selection strategies for heat-stress tolerance*, Sophie Mattalia (IDELE)
- *Perspectives on the use of the EpiChip for breeding and animal husbandry purposes*, Oscar Gonzales-Recio (UEDIN)
- *Strategies to maintain and improve local and small breeds*, Marie-José Mercat (IFIP)

17:30: **Turning Research into Practice and What's Next?** Panel discussion

18:30: Closing