INTERNATIONAL SYMPOSIUM ON
SUSTAINABLE ANIMAL PRODUCTION
AND HEALTH
CURRENT STATUS AND WAY FORWARD

28 JUNE – 2 JULY 2021
10:00 - 15:00 CET
VIRTUAL EVENT
10:00 - 10:30

**Opening Remarks**
Moderator: Gerrit Viljoen, Joint FAO/IAEA Centre

Rafael Mariano GROSSI, Director General IAEA
QU Dongyu, Director General FAO
Monique ELOIT, Director General OIE

**Welcome**
Najat Mokhtar, Deputy Director General IAEA

10:30 - 12:30

**Keynote Speakers and Panel Discussion**
Moderator: Gerrit Viljoen, Joint FAO/IAEA Centre

Andrea Gavinelli
European Commission, Belgium

Ren Wang
China National GeneBank, China

Daniel Bercovici
International Feed Industry Federation, Germany

Franck Berthe
World Bank, United States of America

Norbert Nowotny
Joint FAO/IAEA Centre, University of Veterinary Medicine Vienna, Austria

- Livestock production and productivity
- Emerging and re-emerging animal diseases
- Climate change, environment and biodiversity
- Livestock policy and investments
- Changes in food habits: societal concerns regarding food of animal origin
- COVID-19, MERS and SARS

Live Q&A will be held at the end of the session
12:30 - 15:00

**Session 2**

**Molecular Tools for Animal Production and Health**

Moderator: Charles Lamien, Joint FAO/IAEA Centre

**Disease diagnosis**  
Cameron Stewart  
Commonwealth Scientific and Industrial Research Organisation, Australia

**Sequencing and whole genome sequencing**  
Alessio Lorusso  
Istituto Zooprofilattico Sperimentale dell' Abruzzo e del Molise Giuseppe Caporale, Italy

**Vaccine matching and quality control**  
Aldo Dekker  
Wageningen University & Research, The Netherlands

**Genetic improvement of smallholder dairy cattle for sustainable dairy systems: traditional and genomic approaches**  
John Gibson  
University of New England, Australia

**Genomic approaches to unravel the genetic basis of productive and adaptive traits in livestock**  
Paolo Ajmone Marsan  
Universita Cattolica delSacro Cuore, Italy

Live Q&A will be held after each presentation
Special Session: Commemoration of the 10th Anniversary of Rinderpest Eradication and Maintaining Global Freedom

Moderator: Keith Sumption, FAO

**Welcome**
Maria Helena Semedo, Deputy Director General FAO

**Opening of the 10th anniversary of rinderpest eradication**
QU Dongyu, Director General FAO
Rafael Mariano GROSSI, Director General IAEA
Monique ELOIT, Director General OIE

**Video on eradication efforts and the maintenance of global freedom for 10 years**

**Post-eradication challenges and achievements**
Junaidu Maina, FAO-OIE Rinderpest Joint Advisory Committee
Samia Metwally, FAO
Mariana Marrana, OIE

**Panel discussion**
Mark Rweyemamu, former FAO EMPRES Head
Keith Sumption, FAO
- Vaccines and vaccination
- Diagnostic service
- Herd immunity and management
- Lessons learned: global health and challenges

**FAO-AGA retired “ancien combatants” and experiences sharing**
Samuel Jutzi, former AGA Director

**Closing Remarks**
IAEA, OIE and FAO
10:00 - 12:30

**Session 3**

**Advances in Vaccinology**
Moderator: Viskam Wijewardana, Joint FAO/IAEA Centre

**Low-energy electron irradiation for the generation of inactivated vaccines**
Sebastian Ulbert
Fraunhofer Institute for Cell Therapy and Immunology, Germany

**Irradiated vaccines**
Elena Gaidamakova
Uniformed Services University of the Health Sciences, United States of America

**Irradiated *Hemonchus contortus* vaccine in field trials**
Jayanthe Rajapakse
University of Peradeniya, Sri Lanka

**Novel approaches for bacterial vaccines (CCPP)**
Jörg Jores
University of Bern, Switzerland

**Development of mucosal vaccine against Peste-des-Petits Ruminants virus for small ruminants**
Muhammad Salah Ud Din Shah
Nuclear Institute for Agriculture and Biology, Pakistan

**Mucosal immunity in large animals**
Jean-Pierre Scheerlinck
University of Melbourne, Australia

*Live Q&A will be held after each presentation*
12:30 - 15:00  
Session 4

**Emergency Preparedness and Response**
Moderator: Ivancho Naletoski, Joint FAO/IAEA Centre

**Applied biosafety in the field**
Uwe Müller-Doblies  
Merk Sharp & Dome, Austria

**Neglected or underreported animal health emergencies caused by zoonotic arboviruses in Africa**
Martin Groschup  
Friedrich-Loeffler Institut, Germany

**Adaptation of techniques into laboratory networks**
Trevor Shoemaker  
Center for Disease Control and Prevention, United States of America

**The role of national authorities**
Abel Wade  
Laboratoire National Vétérinaire, Cameroon

**Monitoring emerging zoonotic disease threats and characterizing behavioral risk in high-risk communities in Senegal**
Modou Moustapha Lo  
Institut Sénégalais de Recherches Agricoles, Senegal
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WEDNESDAY

30 June 2021, 10:00-12:30

10:00 - 12:30
Session 5

Zoonotic Diseases, COVID-19 and ZODIAC
Moderator: Norbert Nowotny, Joint FAO/IAEA Centre / University of Veterinary Medicine Vienna, Austria

OIE programme for preventing and controlling zoonotic diseases
Mariana Marrana
World Organisation for Animal Health, France

Laboratory response for the control of zoonotic outbreaks: the Ebola case
Jacqueline Weyer
National Institute for Communicable Diseases, South Africa

SARS-CoV2: its origin and the role of animals in the COVID-19 pandemic
Marion Koopmans
Erasmus University Medical Center, The Netherlands

The role of wildlife in the emergence and spread of zoonotic diseases
Melinda Rostal
EcoHealth Alliance, United States of America

ZODIAC project
Gerrit Viljoen
Joint FAO/IAEA Centre, Austria

Live Q&A will be held after each presentation
12:30 - 15:00
Session 6

Enhancing Livestock’s Contribution to One Health and the SDGs
Moderator: Paul Boettcher, Joint FAO/IAEA Centre

AMR: what is the direction in the next 5 years for vet laboratory surveillance for AMR?
Francesca Latronico, FAO

Managing intentional and accidental release of biothreat agents: improving coordination of investigations and response
Frédéric Poudevigne, FAO

Preparing laboratory services for major emergencies - laboratory contingency plans and simulation exercises: what can be done even in a virtual world
Pam Hullinger, FAO

Preparing laboratory services for major emergencies - diagnostic reagent banks: the Balkans as an example
Kiril Krstevski, FAO

Connecting animal movements and other risks to optimise surveillance: example from West Africa
Baba Soumare and Ismaila Seck, FAO

The role of the livestock master plan in the development of the livestock sector
Clarisse Ingabire, FAO

Health hazards in animal feeds
Gijs Kleter
Wageningen University & Research, The Netherlands

Live Q&A will be held after each presentation
1 July 2021, 10:00-12:30

Challenges for Better Livestock Production in the Developing World
Moderator: Mario Garcia, Joint FAO/IAEA Centre

Evolving livestock sector: innovative technologies and their application in the developing world
Jeroen Dijkman
Wageningen University & Research, The Netherlands

Transformation strategies to improve the water productivity in agriculture in semi-arid regions
Simone Kraatz
Hochschule Anhalt, Germany

Adopting reproductive biotechnologies for animal breeding: issues in developing countries
Joao Henrique Moreira Viana
Brazilian Agricultural Research Corporation, Brazil

Domestic animal biodiversity loss: potential risks for global food security
Mary Mbole-Kariuki
African Union, Inter-African Bureau for Animal Resources, Kenya

Livestock resilience to emerging diseases and climate change: a game changer to building back better food systems post-COVID-19
Mohammed Shamsuddin
FAO, Italy

Live Q&A will be held after each presentation
12:30 - 15:00
Session 8

Advances in Biotechnologies for Improving Livestock Breeding and Feeding
Moderator: Bharani Settypalli, Joint FAO/IAEA Centre

Genomic revolution in livestock: advances in animal breeding technologies for increased livestock productivity and sustainability
Jennie Pryce
Agriculture Victoria and La Trobe University, Australia

Understanding endometrial function for fertility, food and health
Niamh Forde
University of Leeds, United Kingdom

Artificial breeding in practice for sheep and goat: the Sardinian example for the developing world
Maria Dattena
Agenzia Regionale per la Ricerca in Agricoltura, Italy

Measuring feed intake under grazing and browsing conditions: an achievable task?
Robert Mayes
James Hutton Institute, United Kingdom

Live Q&A will be held after each presentation
11:00 - 13:30
Session 9

Application of Improved Technologies for Sustainable Livestock Productivity: The Way Forward
Moderator: Victor Tsuma, Joint FAO/IAEA Centre

European Union actions for a sustainable and innovative animal nutrition sector
Wolfgang Trunk
European Commission, Belgium

Application of nuclear and genomic technologies for improving livestock productivity in the developing world: challenges and opportunities
Raphael Mrode
International Livestock Research Institute, Kenya

Strengthening breeding stock: strategies for implementing advanced embryo production technologies
Joao Henrique Moreira Viana
Brazilian Agricultural Research Corporation, Brazil

Transformation strategies to improve water productivity in agriculture in semi-arid regions
Tami Brown-Brandl
University of Nebraska–Lincoln, United States of America

13:30 - 14:00

Closing Ceremony
Moderator: Gerrit Viljoen, Joint FAO/IAEA Centre

Maria Helena Semedo, Deputy Director General FAO
Liang Qu, Director Joint FAO/IAEA Centre

Live Q&A will be held after each presentation