



Animal Health and Greenhouse Gas Emissions Intensity Network

Presented by: Dirk von Soosten

Presented at: Livestock Research Group Meeting 2018



Friedrich-Loeffler-Institut

Brief description

- The Friedrich-Loeffler-Institut (FLI) , Federal Research Institute for Animal Health is an independent higher federal authority affiliated with the **Federal Ministry for Food, Agriculture and Consumer Protection**.
- The FLI cooperates with scientists and scientific institutions in Germany and worldwide, publishes research results, and fulfills the tasks assigned to it by the **Animal Diseases Act**.



Germany



Headquarters

Isle of Riems

Institute of Immunology
Institute of Diagnostic Virology
Institute of Infectology
Institute of Epidemiology
Institute of Novel and Emerging Infectious Diseases
Institute of Molecular Virology and Cell Biology



Further sites...

Celle

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Jena

Institute of Bacterial Infections and Zoonoses
Institute of Molecular Pathogenesis

Mariensee

Institute of Farm Animal Genetics

Braunschweig

Institute of Animal Nutrition



FRIEDRICH-LOEFFLER-INSTITUT

since 1910

FLI

Bundesforschungsinstitut für Tiergesundheit
Federal Research Institute for Animal Health

Institute of Animal Nutrition

Friedrich-Loeffler-Institut (FLI)

Federal Research Institute for Animal Health

Braunschweig, Germany





Animal Health and Greenhouse Gas Emissions Intensity Network

- Inception in June 2013
- More than 80 members across 25 countries



- The establishment and running of the network has been carried out by ADAS (UK) during the last 4 years (Funded by Defra)
- Previous Coordinator: Ilias Kyriazakis, Newcastle University, UK
- The Friedrich-Loeffler-Institut (FLI) joined the network in 2017
New joint Network Coordinator: Dirk von Soosten



Animal Health and Greenhouse Gas Emissions Intensity Network



About Us

Networks

Animal Health &
Greenhouse Gas

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On average, 20% of animal productivity losses globally can be attributed to disease (**World Organisation for Animal Health**). Improved animal health contributes to greater gains in efficiency and productivity, which in turn helps reduce the greenhouse gas emissions (GHG) intensity of livestock farming.

Events

SEE A

Webinar Presentations
Available: Animal Health &
Greenhouse Gas Emissions
Intensity Network

02/10/2017 - 02/10/2017

Issues of the network:

- Investigating connections between animal diseases and greenhouse gas emissions
- Exploring possible greenhouse gas mitigation opportunities through disease control



Progress to date

- **Wide promotion to increase membership**
 >80 members across 25 countries
- **5 Network Champions:**
 Abdul Chaudhry, Michael Macleod, Jos Houdijk (UK); Wim van der Poel (NL); Seyda Özkan Gülzari (NO)
 Champions in other countries are welcomed
- **3 Annual Network workshops (Ireland, France & Denmark)**
- **1 regional workshop (Ethiopia)**
- **Developed links with FACCE-JPI, MACSUR, GASL, STAR-IDAZ and NEAT**
- **Identified potential funding routes**
- **Communications e.g. UK newsletter**



Webinar was organized 2 October 2017

Webinar agenda

10:00 - 10:20 *Introduction and overview of the AHN*
(Ilias Kyriazakis, Newcastle University, UK)

10:20 - 10:40 *Cattle health and GHG emissions in sub-Saharan Africa*
(Michael Macleod, SRUC, UK)

10:40 - 11:00 Challenges and priorities for modelling livestock health and pathogens in the context of climate change
(Seyda Özkan Gülzari, Nibio, NO)

11:00 - 11:20 Introducing the GRA Livestock Research group
(Martin Scholten, Wageningen UR, NL)

11:20 - 11:40 UK Interaction with the GRA
(Luke Spadavecchia, Defra, UK)

11:40 - 12:00 Concluding remarks
(Ilias Kyriazakis, Newcastle University, UK)



A webinar to share the achievements of the Animal Health and Greenhouse Gas Emissions Intensity Network (AHN); a United Kingdom (UK) led initiative of the Livestock Research Group (LRG) of the Global Research Alliance (GRA) on Agricultural Greenhouse Gases will take place on 2 October 2017



Examples of Relevant Research in Connection to the Network



Environmental Research

Volume 151, November 2016, Pages 130-144



Review article

Challenges and priorities for modelling livestock health and pathogens in the context of climate change

Şeyda Özkan ^{a, 1}, Andrea Vitali ^b, Nicola Lacetera ^b, Barbara Amon ^c, André Bannink ^d, Dave J. Bartley ^e, Isabel Blanco-Penedo ^f, Yvette de Haas ^g, Isabelle Dufrasne ^g, John Elliott ^h, Vera Eory ⁱ, Naomi J. Fox ^j, Phil C. Garnsworthy ^k, Nicolas Gengler ^l, Hedi Hammami ^l, Ilias Kyriazakis ^m, David Leclère ⁿ, Françoise Lessire ^g ... Richard P. Kipling ¹✉

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<https://doi.org/10.1016/j.envres.2016.07.033>

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Study to Model the Impact of Controlling Endemic Cattle Diseases and Conditions on National Cattle Productivity, Agricultural Performance and Greenhouse Gas Emissions

Final Report

Animal (2018), 12:4, pp 844–852 © The Animal Consortium 2017
doi:10.1017/S1751731117002294



The greenhouse gas abatement potential of productivity improving measures applied to cattle systems in a developing region

G. R. Salmon^{1,2†}, K. Marshall³, S. F. Tebug³, A. Missohou⁴, T. P. Robinson⁵ and M. MacLeod¹

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Animal health and greenhouse gas intensity: the paradox of periparturient parasitism

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Challenges to the Network

- **Long term funding for the Network**
 - **Cost Action Proposal:** is currently being revised in cooperation with selected network partners
- **Secure funding for research projects on Animal health and GHG's**
- **Enable more countries to be able to participate in Network workshops**



Thank you for your attention



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