

Programme



Programme

Wednesday 25 May 13:00 – 14:15

Auditorium 3-01

Welcome to Scand-LAS 2011 – What is the benefit of animal research

13:00 – 13:15 Welcome by **Lars Friis Mikkelsen**, Novo Nordisk A/S, Denmark, Chair of the Organizing Committee and Vice-President, Scand-LAS

13:15 – 13:30 Welcome by **Søren Hartz**, Faculty Director, Faculty of Life Sciences (LIFE), University of Copenhagen, Denmark

Karl Johan Öbrink memorial lecture

Chair: **Hanna-Marja Voipio**, Finland, President, Scand-LAS

13:30 – 14:15 No: 1 **Poul Hyttel**, Faculty of Life Sciences, University of Copenhagen, Denmark: Genetically modified pigs as refined stem cell models

14:15 – 15:00 Coffee-break

Wednesday 25 May 15:00 – 17:00

Auditorium 3-01

Laboratory animal ethics Can we ethically justify the use of animals in research

Chair: **Lars Friis Mikkelsen**, Novo Nordisk A/S, Denmark

Programme

No: 2 Prof. Dr. **Hanno Würbel**, Animal Welfare and Ethology, Department of Veterinary Clinical Sciences, University of Giessen Germany: **The ethological basis of animal ethics – or how we ethically justify the use of animals in research**

No: 3 Dr. **Anna Olsson**, Laboratory Animal Science, IBMC – Institute for Molecular and Cell Biology, Porto, Portugal: **Ethics and refinement in animal research**

No: 4 Associate Professor, **Mickey Gjerris**, Danish Centre for Bioethics and Risk Assessment, Institute of Food and Resource Economics Faculty of Life Sciences, University of Copenhagen: **Somewhere along the line – on different viewpoints on using animals**

No: 5 Director CEE Region & Animal Welfare **Magda Chlebus**, European Federation of Pharmaceutical Industries and Associations (EFPIA), Brussels, Belgium: **Communication on the use of animals in research**

Followed by a panel discussion moderated by **Magda Chlebus**, EFPIA, Brussels, Belgium

This session is kindly sponsored by Global Bioethics Management, Novo Nordisk A/S

Wednesday 25 May 18:00 – 20:00

Welcome reception at the Copenhagen Town Hall

Free for all Scand-LAS 2011 participants incl. bus transportation from symposium venue to Copenhagen Town Hall.

Followed by free entrance to Tivoli – this entrance is partly sponsored by Bioculture Mauritius LTD.

 Thursday 26 May 8:00 – 9:45
Theme: **3Rs**

Replacement

Do we need animals for future safety testing?

Chair: **Lisbeth E. Knudsen**, Faculty of Health Sciences, University of Copenhagen, Denmark

8:00 – 8:45 No: 6 **Michael Schwarz**, Institute of Experimental and Clinical Pharmacology and Toxicology, Department of Toxicology, University of Tuebingen, Germany: **The ReProTect project**

8:45 – 9:05 No: 7 **Anne Marie Vinggaard**, National Food Institute, Technical University of Denmark, Denmark: **Do we need anything but animals for future safety testing?**

9:05 – 9:25 No: 8 **Eva Cecilie Bonefeld-Jørgensen**, Centre of Arctic Environmental Medicine School of Public Health, Aarhus, Denmark: **Effects of Phthalates on the Human Corneal Endothelial Cell Line B4G12**

9:25 – 9:45 No: 9 **Lisbeth E. Knudsen**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Modelling of human transplacental transport**

9:45 – 10:15 Coffee-break

 Thursday 26 May 10:15 – 12:00
Theme: **3Rs**

Refinement

How do we refine future animal models?

Chair: **Dorte Bratbo Sørensen**, Faculty of Life Sciences, University of Copenhagen, Denmark

10:15 – 11:45 No: 10 **Hanno Würbel**, Animal Welfare and Ethology, Department of Veterinary Clinical Sciences, University of Giessen, Germany: **Don't be afraid of environmental enrichment**

10:45 – 11:15 No: 11 **Björn Forkman**, Faculty of Life Sciences, University of Copenhagen, Denmark: **How do we refine future animal models?**

11:15 – 11:30 No: 12 **Tanja Lyholm Jensen**, Faculty of Life Sciences, University of Copenhagen and Novo Nordisk A/S, Denmark: **The effects of fasting of mice**

11:30 – 11:45 No: 13 **Mickey Gjerris**, Faculty of Life Sciences, University of Copenhagen: **Using animals and using integrity? On the role of the concept of integrity in Animal Ethics Committees**

11:45 – 12:00 No: 14 **Robert Teepe**, EUPRIM-Net, Germany: **EUPRIM-Net: Ensuring best practice and advancing the 3Rs in primate research**

This session is kindly sponsored by Taconic

12:00 – 13:00 Lunch

 Thursday 26 May 13:00 – 14:45
Theme: **3Rs**

Reduction

How do we reduce the group size in animal studies?

Chair: **Axel Kornerup Hansen**, Faculty of Life Sciences, University of Copenhagen, Denmark

13:00 – 13:10 No: 15 **Axel Kornerup Hansen**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Reduction through standardization or diversity?**

13:10 – 13:35 No: 16 **Frans W.J. van den Berg**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Chemometrics versus traditional statistics**

13:35 – 14:00 No: 17 **Merete Ellekilde**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Reducing the variation in animal models by standardizing the gut microbiota**

14:00 – 14:15 No: 18 **Rafael Frias**, University of Turku, Finland: **A permeability test protocol using iohexol to reduce and refine the use of laboratory rats in intestinal damage assessment – Iohexol protocol test and 2R's for use in laboratory rats**

- 14:15 – 14:30 No: 19 **Paul J. Midtlyng**, Norwegian School of Veterinary Science, Oslo, Norway: **Live fish trials and the use of antibiotics in aquaculture**
- 14:30 – 14:45 No: 20 **Elin Spangenberg**, SLU, Uppsala, Sweden: **Housing mice in different IVC systems**

Thursday 26 May 8:00 – 9:45

Theme: **One health**

Synergy in human and animal research Can human medicine benefit from veterinary research and vice versa?

Chair: **Annemarie T. Kristensen**, Faculty of Life Sciences, University of Copenhagen, Denmark

- 8:00 – 8:25 No: 21 **Annemarie T. Kristensen**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Can human medicine benefit from veterinary research and vice versa? A place for clinical animal models in biomedical research**
- 8:25 – 8:50 No: 22 **Lisbeth Høier Olsen & Jørgen Koch**, Faculty of Life Sciences, University of Copenhagen, Denmark: **The pet dog and cat as models in cardiovascular research**
- 8:50 – 9:15 No: 23 **Charlotte Bjørnvad**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Feline obesity and diabetes**
- 9:15 – 9:40 No: 24 **Mette Berendt**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Do studies of pet dogs with naturally occurring brain disorders offer an essential complement to experimental animal models?**
- 9:45 – 10:15 Coffee-break

Thursday 26 May 10:15 – 12:00

Theme: **One health**

From bench to bedside New animal models in pharmacology

Chair: **Jens Lykkesfeldt**, Faculty of Life Sciences, University of Copenhagen, Denmark

- 10:15 – 11:00 No: 25 **Kurt Buchmann**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Zebrafish *Danio rerio* – a pharmacological test model**
- 11:00 – 11:15 No: 26 **Brian Broberg**, Center for Neuropsychiatric Schizophrenia Research, University Psychiatric Center Glostrup, Denmark: **Assessment of auditory sensory processing in a neuro-developmental animal model of schizophrenia – gating of auditory-evoked potentials and prepulse inhibition**
- 11:15 – 11:30 No: 27 **Anne Pastoft**, Faculty of Life Sciences, University of Copenhagen and Novo Nordisk A/S, Denmark: **Effects of recombinant FVIII in a venous bleeding model in haemophilia A mice**
- 11:30 – 11:45 No: 28 **Malene Hvid**, Aarhus University, Denmark: **Evaluation of the effect of CD4+ T cell depletion in a murine model of atopic dermatitis**
- 11:45 – 12:00 No: 29 **Rikke Westh Thon**, PixieGene A/S, Denmark: **Genetically modified pig models of atherosclerosis – will a new pig model benefit treatment of the human disease?**
- 12:00 – 13:00 Lunch

Thursday 26 May 13:00 – 14:45

Theme: **One health**

Life style diseases Can the life style disease epidemic be solved without the use of animals?

Chair: **Kirsten Raun**, Novo Nordisk A/S, Denmark

- 13:00 – 13:30 No: 30 **Allan Flyvbjerg**, Department of Endocrinology and Internal Medicine, Aarhus University Hospital and The Medical Research Laboratories, Institute of Clinical Medicine, Faculty of Health Sciences, Aarhus University, Aarhus, Denmark: **Need for animal models in diabetes research**
- 13:30 – 13:55 No: 31 **Kirsten Raun**, Novo Nordisk A/S, Denmark: **Obesity and diabetes animal models**
- 13:55 – 14:20 No: 32 **Berit Christoffersen**, Novo Nordisk A/S, Denmark: **Animal models of atherosclerosis**
- 14:20 – 14:45 No: 33 **Kirsten Dahl**, Novo Nordisk A/S, Denmark: **The fat pig group – a cross institutional 3R initiative**

This session is kindly sponsored by Diabetes Research Unit, Novo Nordisk A/S

Thursday 26 May 8:00 – 12:00

Practical workshops

- 1A: Imaging techniques**
– Room 1-73-1196 and Surgical Facility, Dyrølægevej 68, Building 1-73
- 1B: Insects in research**
– Room F 317, Thorvaldsensvej 40, opgang 2, 3. Floor, Building 2-71
- 1C: Working environment**
– Auditorium 2-01, Building 1-02, Nordre Sti 1
- 1D: Excursion to Rørrendegård, KU LIFE, Large Animal Facility**
– Bus departure from Grønnegårdsvej at 08:00
- 1E: Minipigs**
– Room 1-73-1196 and Laboratory Animal Facility, Dyrølægevej, 68 Building 1-73

Thursday 26 May 13:00 – 14:45

Auditorium 2-01

Ethical committees

No: 34 **Aurora Brønstad**, University of Bergen, Norway: **Project authorization, “ethical approval” in Norway and establishing ethical committees**

No: 35 **Alexander Norup Nielsen**, NeuroSearch A/S, Denmark: **Internal committee for animal ethics and welfare at NeuroSearch**

No: 36 **Peter Glerup** LAB Research, Denmark: **Ethical committees session**

Thursday 26 May 15:15 – 16:00

Exhibition area

Poster session

All poster presenters are urged to stay by their posters during the poster session

“Best Scientific Poster” will be selected by Hanna-Marja Voipio and Ann-Christine Eklöf and “Best Technical Poster” will be selected by Lene Bregnholt Larsen and Karin Kold

Both poster prizes will be announced at the Galla Dinner and honored with free registration for the Scand-LAS 2012 symposium

Thursday 26 May 16:00 – 17:00

Auditorium 3-13

Scand-LAS annual meeting

Please see the agenda at www.scandlas.org

Thursday 26 May 19:00 – 23:00

Exhibitors evening: Scand-LAS 2011 by night

Food from Meyers Køkken, drinks from the exhibitors and live music by “Lowland Traveler” for all Scand-LAS 2011 participants

Appetizers are kindly sponsored by Harlan, drinks by all exhibitors and music by The Microbiology Laboratories

Friday 27 May 8:00 – 9:45

Theme: **Animal models**

Neurobiology

Are animals proper models for human psychiatry?

Chair: **Gitta Wörtwein**, Faculty of Health Sciences, University of Copenhagen, Denmark

- 8:00 – 8:10 **Gitta Wörtwein**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Introduction**
- 8:10 – 9:05 No: 37 **Allan V Kalueff**, Tulane University Medical Center, New Orleans, USA: **Are animals proper models for human psychiatry?**
- 9:05 – 9:20 No: 38 **Katrine Fabricius**, H. Lundbeck, Denmark: **Social isolation of rats as a possible animal model of some traits of schizophrenia**
- 9:20 – 9:35 No: 39 **Gunnar Sørensen**, Institute of Neuroscience and Pharmacology, University of Copenhagen, Denmark: **Animal models for addiction research**
- 9:35 – 9:45 General discussion
- 9:45 – 10:15 Coffee-break

Friday 27 May 10:15 – 12:00

Theme: **Animal models**

Ruminants

Are ruminants good models for human diseases?

Chair: **Mette Olaf Nielsen**, University of Copenhagen, Faculty of Life Sciences, Denmark

- 10:15 – 10:45 No: 40 **Mette Olaf Nielsen**, Dept. Basic Animal and Veterinary Sciences, Faculty of Life Sciences, University of Copenhagen, Denmark: **The sheep as a model for studying the role of pre- and postnatal dietary exposures on development of metabolic disorders**
- 10:45 – 11:15 No: 41 **Michael Symonds**, Division of Human Development, University

of Nottingham, UK: **The use of ruminants as models for human diseases**

- 11:15 – 11:25 No: 42 **Anna Kongsted**, Dept. Basic Animal and Veterinary Sciences, Faculty of Life Sciences, University of Copenhagen, Denmark: **Late-Gestation Nutrient Restriction and Early Postnatal High-Carbohydrate-High-Fat**
- 11:25 – 11:35 No: 43 **Lei Hou**, Dept. Basic Animal and Veterinary Sciences, Faculty of Life Sciences, University of Copenhagen, Denmark: **Differential effects of pre- and postnatal dietary exposures on muscle function in the sheep**
- 11:35 – 11:45 No: 44 **Sanne Vinter Husted**, Dept. Basic Animal and Veterinary Sciences, Faculty of Life Sciences, University of Copenhagen, Denmark: **Sheep as a model for metabolic programming offers unique opportunities to study fetal development and conduct fetal interventions**
- 11:45 – 12:00 Discussion
- 12:00 – 13:00 Lunch

Friday 27 May 13:00 – 14:45

Theme: **Animal models**

Inflammation

Is inflammation in animal models comparable to human inflammation?

Chair: **Dan Holmberg**, Faculty of Life Sciences, University of Copenhagen, Denmark

- 13:00 – 13:15 No: 45 **Dan Holmberg**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Quantitative and live imaging of inflammation in animal models of autoimmunity**
- 13:15 – 14:00 No: 46 **Rikard Holmdahl**, Karolinska Institutet, Stockholm, Sweden: **Animal models for rheumatoid arthritis**
- 14:00 – 14:45 No: 47 **Julia-Stefanie Frick**, University of Tübingen, Tübingen, Germany: **Host microbe interaction in intestinal inflammatory diseases**

14:45 – 15:15 Coffee-break

Friday 27 May 15:15 – 17:00

Theme: **Animal models**

Cancer Do we need animals for cancer research?

Chair: **Leif R. Lund**, Faculty of Health Sciences, University of Copenhagen, Denmark

15:15 – 15:45 No: 48 **Leif R. Lund**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Genetic models in breast cancer research**

15:45 – 16:15 No: 49 **Mikala Egeblad**, Cold Spring Harbor Laboratory, New York, US: **Do we need animals for cancer research? Mouse models and live imaging enable insights into the role of tumor microenvironment in regulating chemoresistance**

16:15 – 16:45 No: 50 **Andreas Hald**, Faculty of Health Sciences, University of Copenhagen, Denmark: **The growth of chemically induced skin tumors on mice is facilitated by plasminogen**

16:45 – 17:00 No: 51 **Janne Koch**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Investigation of the cancer resistant phenotype of the SR/CR mouse**

Friday 27 May 8:00 – 9:45

Theme: **Improved techniques**

Methods for monitoring distress and pain Do we have proper methods for monitoring pain and distress in the animals during research?

Chair: **Jann Hau**, Faculty of Health Sciences, University of Copenhagen, Denmark

8:00 – 8:15 No: 52 **Klas Abelson**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Animal models in pain research**

8:15 – 8:30 No: 53 **Robert Murison**, University of Bergen, Bergen, Norway: **Animal models in stress research**

8:30 – 8:45 No: 54 **Jann Hau**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Biomarkers of stress and pain in urine, feces, saliva and body hair**

8:45 – 9:00 No: 55 **Otto Kallikowski**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Variation and pitfalls in the interpretation of fecal corticosteroid excretion**

9:00 – 9:15 No: 56 **Timo Nevalainen**, University of Eastern Finland, Kuopio, Finland: **Telemetry as tool for measuring stress and pain**

9:15 – 9:30 No: 57 **Kirsten Rosenmaj Jacobsen**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Pain assessment in mice subjected to vasectomy**

9:30 – 9:45 No: 58 **Steven Schapiro**, The University of Texas MD Anderson Cancer Center, USA: **Behavioural management as stress lowering concept**

9:45 – 10:15 Coffee-break

This session is partly sponsored by Scandinavian Journal of Laboratory Animal Science

Friday 27 May 10:15 – 12:00

Theme: **Improved techniques**

Whole animal imaging Can imaging be seen as a refinement?

Chair: **Aage Kristian Olsen Alstrup**, PET Center, Aarhus University Hospital, Aarhus, Denmark

10:15 – 10:40 No: 59 **Aage Kristian Olsen Alstrup**, PET Center, Aarhus University Hospital, Denmark: **Imaging techniques in small and large animals**

10:40 – 11:20 No: 60 **Nanna M. Lind** on behalf of Paul Cumming, Aarhus

University Hospital, Denmark: **Can imaging of rodents be seen as a reduction and refinement?**

11:20 – 11:50 No: 61 **Anne M Landau**, Aarhus University Hospital, Aarhus, Denmark: **How can we promote reduction and refinement in large animal imaging studies?**

11:50 – 12:00 Discussion of animal imaging as a refinement

12:00 – 13:00 Lunch

Friday 27 May 13:00 – 14:45

Theme: **Improved techniques**

Immunization

How do we produce the best antibodies under the best animal welfare?

Chair: **Jann Hau**, University of Copenhagen, Faculty of Health Sciences, Denmark

13:00 – 13:30 No: 62 **Claus Koch**, University of Southern Denmark, Odense, Denmark: **Immunization – How do we produce the best antibodies under the best animal welfare?**

13:30 – 14:00 No: 63 **Sveinbjörn Gizurasson**, University of Iceland, Reykjavik, Iceland: **Developments in adjuvants and effective alternatives to Freund's Complete Adjuvant** Developments in adjuvants and effective alternatives to Freund's Complete Adjuvant

14:00 – 14:20 No: 64 **Jann Hau**, University of Copenhagen, Faculty of Health Sciences, Denmark: **Implementation of the 3Rs through oral immunization of chickens and purification of antibodies from the egg yolk**

14:20 – 14:45 Joint discussion with the audience

Friday 27 May 8:00 – 12:00

Practical workshops

2A: Anaesthesia

– Room 1-73-1196 and Surgical Facility, Dyr lægevej 68, Building 1-73

2B: Microsurgery

– Microsurgery, Dyr lægevej 45

2C: "Clicker" training

– Bus departure from Grønnegårdsvej at 08:00

2D: Excursion to Novo Nordisk, Large Animal Facility

– Bus departure from Grønnegårdsvej at 08:00

2E: Excursion to Rørendegård, KU LIFE, Large Animal Facility

– Bus departure from Grønnegårdsvej at 08:00

Friday 27 May 13:00 – 17:00

Gimle

The Danish laboratory animal technician group "Temagruppen"

Chair: **Lotte Nielsen**, "Temagruppen"

No: 65 **Henrik Hansen**, The Metropolitan University College, Copenhagen, Denmark: **The blood and its role in the inflammatory process**

No: 66 **Carsten Grøndahl**, Copenhagen Zoo, Denmark: **Pain in animals**

No: 67 **Kirsten Rosenmaj Jacobsen**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Evaluation and treatment of postoperative pain in mice**

Friday 27 May 18:00 – 23:30

Galla Dinner at Carlsberg Museum

Bus transport from selected hotels to the Galla Dinner venue – please bring your name batch and special ticket for the Galla Dinner. Music is kindly sponsored by Tapvei

Saturday 28 May 9:00 – 11:35

Theme: **Teaching**

Teaching

How do we improve laboratory animal science teaching?

Chair: **Axel Kornerup Hansen**, University of Copenhagen, Faculty of Life Sciences, Denmark

- 9:00 – 9:10 **Axel Kornerup Hansen**, University of Copenhagen, Faculty of Life Sciences, Denmark: **Introduction**
- 9:05 – 9:20 No: 68 **Annette Hildabrand**, DoD Veterinary Services Activity , USA: **Animal Use in Education. Where are we and where do we go from here?**
- 09:20 – 09:35 No: 69 **Keith Davies**, Cardiff University, United Kingdom: **Investigating Concepts of Emotional Labour and Emotional Dissonance among UK Animal Technicians**
- 9:35 – 10:00 No: 70 **David Smith**, Chair FELASA working group, UK: **Adapting the established FELASA Education & Training recommendations to meet the new requirements of Directive 2010/63**
- 10:00 – 10:30 Coffee-break
- 10:30 – 10:55 No: 71 **Leon Brimer**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Online teaching in toxicology**
- 10:55 – 11:15 No: 72 **Rikke Langebæk**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Blended learning in the Small Animal Clinic**
- 11:15 – 11:35 No: 73 **Rikke Langebæk**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Using dummies for surgical skills training**

Saturday 28 May 9:00 – 11:45

Theme: **New techniques and exotic species**

Presentation of new techniques

Chair: **Lene Bregnholt Larsen**, The Danish Cancer Society, Denmark

No: 74 **Janne Koch**, Faculty of Health Sciences, University of Copenhagen, Denmark: **Blood sampling in rodents**

No: 75 **Dorte Bratbo Sørensen and Mette Nelander**, Faculty of Life Sciences, University of Copenhagen, Denmark: **The bug method for blood sampling – an ancient, new technique**

Exotic laboratory animals

Chair: **Karin Kold**, University of Copenhagen, Faculty of Life Sciences, Denmark

No: 76 **Marie Claire Domaingue**, Biodia Co Ltd, Mauritius, **Nonhuman Primate breeding for research purposes**

No: 77 **Karin de Linde Troelsen**, Denmark: **Zebrafish in research**

No: 78 **Jesper Monrad**, Faculty of Life Sciences, University of Copenhagen, Denmark: **Foxes**

No: 79 **Mads F. Bertelsen**, Copenhagen Zoo, Denmark: **Raccoons and reptiles**

Saturday 28 May 11:45 – 12:00

Closing ceremony and announcement of Scand-LAS 2012 symposium