



IVP NEWSLETTER

NR. 2, 2018



IN VIVO PHARMACOLOGY
GRADUATE PROGRAMME FOR IN VIVO PHARMACOLOGY & EXPERIMENTAL ANIMALS

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Layout:
Camilla Ebert

www.invivofarm.dk

SINCE LAST...

Dear All

These past months, we – as in Camilla – have put a large effort into reviving our homepage and making it more dynamic. Calendar and news are kept up to date and we would like your help in notifying us of relevant news including publications for the homepage. Camilla has also made a very nice overview of our yearly activities that will hopefully make it easier for everyone to plan ahead and make an effort to participate in the networking at our various events. Thanks to Camilla for these valuable initiatives.

I also want to thank Anna-Katrina and Lykke and their organizing committee for putting together our second IVP Animal Model Workshop. I thought it was a great success and I have only received positive feedback. Yes – we will do that again for sure – next year's meeting is already scheduled for August 30th 2019 so mark your calendars! By the way – a warm welcome to Charlotte Holm Nielsen who replaces Lykke in the IVP Advisory Board.

As a consequence of the reorganisation at NN, Dorte Lundsgaard has moved to a new department and will for that reason no longer work on the IVP Programme. Instead, Rasmus Nielsen, GDD Operations, replaces Dorte as member of the IVP advisory board.

Next years IVP Course is open for registration and I highly recommend new students to enlist as early as possible – so sign up [here](#) if you have not already had this compulsory course.

Among the PhD programme leaders, a new agreement on a 'common marked' for PhD courses among the Nordic countries are currently being made. Thus, very soon it will be possible to take courses in our neighboring countries free of charge. You can check out the progress and possibilities [here](#).

Looking forward to seeing you all at our Xmas meeting!

Merry Christmas and best wishes,



Jens
Program Head



SINCE LAST 2

NEWS FROM THE STUDENT REPRESENTATIVES

Dear members of the IVP Graduate Programme,

It was great to see so many of you at the In Vivo Pharmacology Workshop that took place in the Maersk Tower in September. We hope you got as much out of the day as we did!

'Winter is coming', as they say – and what better way to get through the dark and cold times than to spend time with your fellow PhD students at a Christmas gathering? This year, we have arranged a lecture with Mickey Gjerris who will give a talk on the ethics of animal research. Mickey has published numerous books on bioethics and has extensive experience as a lecturer within this field. The lecture is followed by some 'julehygge' with 'æbleskiver', Jens' mulled wine and other activities. It will be very 'hyggeligt'.

The annual IVP meeting is also coming up in the beginning of next year, so make sure to book the 7-8 March for this annual event.

Unfortunately, we have to say goodbye to Lykke as a member of the IVP board. Instead, we welcome our new member Charlotte Holme Nielsen.

Since Anna Katrina will also hand in her thesis shortly, we are looking for a new candidate to join the IVP board from February 2019 together with Charlotte. If you are interested, please contact [Camilla](#) and feel free to ask us questions about our role in the IVP board.

Finally, in case you are not a member already, please remember to join the IVP Graduate Programme group on [Facebook](#).

Have a great Christmas!

Best regards,
[Lykke](#) , [Anna Katrina](#) & [Charlotte](#)

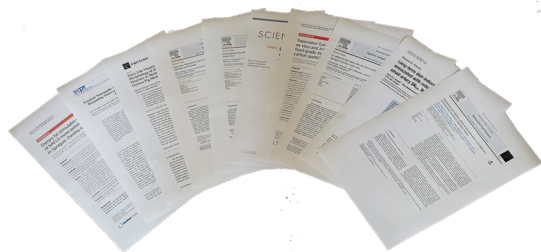


NEW PUBLICATIONS...

Factors Affecting the Absorption of Subcutaneously Administered Insulin: Effect on Variability. Gradel AKJ, Porsgaard T, Lykkesfeldt J, Seested T, Gram-Nielsen S, Kristensen NR, Refsgaard HHF. J. Diabetes Res. 2018 Jul 4; 2018:1205121. doi: 10.1055/2018/1205121. eCollection 2018. Review.

Subcutaneous Administration of Insulin is Associated With Regional Differences in Injection Depot Variability and Kinetics in The Rat. Gradel AKJ, Porsgaard T, Lykkesfeldt J, Brockhoff PB, Seested T, Refsgaard HHF. Exp Clin Endocrinol Diabetes. 2018 Aug 3. doi: 10.1055/a-0658-1089. [Epub ahead of print]

Bovine Milk Oligosaccharides with Sialyl-lactose for Preterm Piglets. Karina Obelitz-Ryom, Amalie Katrine Rendboe, Duc Ninh Nguyen, Silvia Rudloff, Anne Bladt Brandt, Dennis Sandris Nielsen, Anne Birgitte Heckmann, Maciej Chichlowski, Per Torp Sangild, Thomas Thymann, and Stine Brandt Bering. Nutrients. 2018 Oct; 10(10): 1489. Published online 2018 Oct 12. doi: [10.3390/nu10101489]



**REMEMBER TO
NOTIFY US OF YOUR
NEW PUBLICATIONS**

JOIN THE IVP GRADUATE PROGRAMME ON FACEBOOK



**CLICK ON THE LOGO TO LEARN
MORE**

FUNDING...

SUNDS PhD school provides funding for courses offered from external providers. Up to two courses pr. PhD student. [Read the conditions.](#)

SUNDS PhD school also provides funding for stays abroad at other research environments. The stay should be all in all 4 weeks, which means that the stay can be split into two short stays as long as they comply to 4 weeks in total. [Read more.](#)

The Graduate School now offers financial support for international PhD students' Danish language courses. Learn more about financial support for participation in Danish language courses [here](#).

The IVP graduate programme provides funding for conferences and seminars under the condition that you have been accepted to present a poster or oral presentation. Members that are part of an industrial project are not eligible for funding. [Read more.](#)

PUBLICATIONS & FUNDING 4

2ND IVP ANIMAL MODELS WORKSHOP

FRIDAY 7 SEPTEMBER 2018

By Josephine Skat-Rørdam



Progression
and reversibility
of NASH with
hepatic fibrosis

PhD

As a newly enrolled PhD student in the IVP programme I had decided to say yes to anything thrown at me, so when Anna Katrina (IVP board member) came and asked if I wanted to join the IVP workshop planning team, I used the opportunity to employ my new mantra, and said yes.



View from the top of the Maersk Tower. Photo: Josephine Skat-Rørdam

Heading to our first meeting, I must admit, I had absolutely no idea how I could contribute. I had no previous experience planning a professional event, I was relatively new to the field of in vivo pharmacology, and I didn't have a long list of highly acknowledged Professors ready to accept an invitation. Despite these

self-proclaimed inadequacies, I really enjoyed our first meeting, and felt that I had a lot to contribute with.

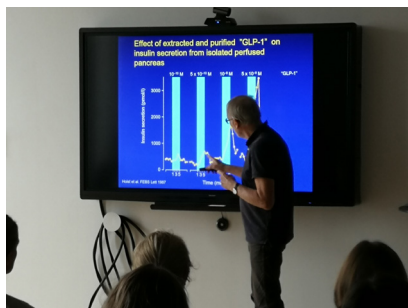


Mads Bertelsen in the middle of his lecture. Photo: Camilla Ebert

We eventually agreed on gut-brain, toxicology and alternative animal models as the main topics, and each of us took responsibility for contacting a speaker for the event. Among the potential speakers for the event were names such as Harrie Boonen head of exploratory toxicology at Lundbeck, Sarah Søs Poulsen from the Danish National centre for working environment, Thomas Thymann from Comparative Paediatrics and Nutrition at University of Copenhagen, Mads Bertelsen from Copenhagen Zoo, Elke Ober from Danstem and Jens Juul Holst from Endocrinology and Metabolism also at University of Copenhagen. With this line-up we were certain that some of the speakers would be too busy or uninterested in speaking at our event. Incredibly, all but one speaker we had contacted gave a positive answer, which was really exciting.

Please turn to next page.

We ended up booking a room on the very top floor of the Mærsk tower. The view was spectacular and several of the guest were taking pictures upon arrival, and don't they say that you can get inspired by your surroundings? If so, this was the place. To kick off the day IVP board members Anna Katrina and Lykke had a welcome speech prepared, and our first lecturer began shortly afterwards.



Jens Juul Holst. Photo: Camilla Ebert

All speakers came well prepared and we learned things from growing a mini organism on a chip and treatment of pre-term piglets, to a somewhat startling revelation about the current exposure limit of certain nanoparticles.



View of the seminar room. Photo: Camilla Ebert

After lunch we had champion presenter Jens Juul Holst, talking about his discovery of GLP-1, followed by a break and, understandably, a long line of

participants wanting to ask questions. Our last speakers presented alternative animal models, where we learned how a giraffe could keep from passing out when lowering its head to drink, and how the small zebrafish can contribute to the field of in vivo pharmacology.

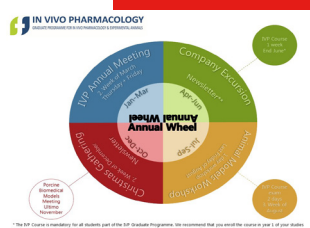
To round up the day Anna Katrina and Lykke had prepared a quiz on the presentations of the day and the IVP programme, which was followed by drinks and tapas, where everyone was giving a chance to socialize and kick back after a day packed with information.

Although biased, I thought it was an excellent day, with inspired talks giving a different perspective on our field of in vivo pharmacology. I was really happy to be part of the organizing group, it was a great way to get to know everyone and learn how to plan a professional event. All in all something I can only recommend to anyone else joining IVP programme.

IVP ANNUAL WHEEL¹⁰⁰

The IVP Advisory Board has decided to make an annual wheel for the IVP Graduate Programme. The Annual Wheel shows IVP's annual activities and what we expect our graduate members to participate in.

Click on the picture to download the wheel.



NEW FACES...

Emilio Di Ianni from Danish National Research Centre for The Working Environment. Title of project: In vitro prediction of in vivo lung inflammation, acute phase response and genotoxicity using simple and complex cell cultures. Main supervisor: Professor Peter Møller. Project initiated: 1 August 2018.



"In my PhD project in Nanotoxicology, I will investigate endpoints such as inflammation, acute phase response and genotoxicity in simple and complex cell models exposed to nanomaterials. Generated in vitro results are explored and correlated to results from animal experiments. My research interest is to develop alternative hazard testing strategies, that will support the development of new innovative nanotechnologies without compromising the human health."

Anna Ulstein Odland from Dept. of Drug Design and Pharmacology. Title of project: Effects of serotonin 2A receptor agonists on compulsivity and cognitive flexibility. Main supervisor: Associate Professor Jesper Tobias Andreasen. Project initiated: 16 September 2018.



"I am an outdoor-loving pharmacist who just started my PhD at the Department of Drug Design and Pharmacology. My research employs mouse behavioural models of cognition and compulsivity to study how psychedelics, such as LSD and psilocybin, affect the mind in the search for improved mental health treatments."

Louise Bomholt Klem from Dept. of Drug Design and Pharmacology. Title of project: Role of dopamine in regulating rodent behaviour related to attention deficit hyperactivity disorder - pharmacological studies in the mouse continuous performance task. Main supervisor: Associate Professor Jesper Tobias Andreasen. Project initiated: 1 September 2018.



"PhD fellow working with the rodent continuous performance test (rCPT) to examine ADHD neurobiology and pharmacological treatment."

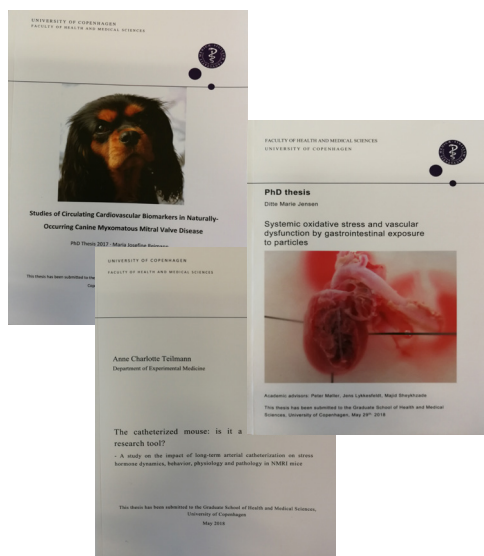
Welcome to everyone!

THOSE WHO DEFENDED SINCE LAST...

Maria Reimann defended her thesis on 8 August 2018. The title: Studies of Circulating Cardiovascular Biomarkers in Naturally-Occurring Canine Myxomatous Mitral Valve Disease.

Ditte Marie Jensen defended her thesis on 21 September 2018. The title: Systemic oxidative stress and vascular dysfunction by oral exposure to particles.

Anne Charlotte Teilmann defended her thesis on 1 October 2018. The title: The catheterized mouse: is it a valid biomedical research tool? - A study on the impact of long-term arterial catheterization on stress hormone dynamics, behavior, physiology and pathology in NMRI mice.



Congratulations to everyone!

UPCOMING PhD DEFENCES.∞

Sara Hestehave Kristensen will defend her thesis in 2019 on: Refinement of animal models in pain research - a study of the comorbidity between pain, anxiety and depression in various rat strains, for the improvement of the translation from animals to humans.

Marta Diaz del Castillo will defend her thesis in 2019 on: A novel animal model of metabolic bone pain.

Anna Katri will defend her thesis in 2019 on: Animal models for examining the role of osteoclasts in osteoarthritis pain.

Laura Kofoed Hvidsten Ørstrup will defend her thesis in 2019 on: The impact of neonatal Fc receptor and disease processes on in vivo distribution of biopharmaceuticals using advanced imaging technologies.

Simone Krog Christensen will defend her thesis in 2019 on: Unraveling disease mechanisms in the diabetic heart.

Karen Gjendal will defend her thesis in 2019 on: Refining humane endpoints of long term studies: Using murine species-specific behaviours to assess reduced welfare in the home cage of mice and rats.

Stay updated on all the PhD defences at The Graduate School for Health and Medical Sciences. [Read more.](#)

Make sure to notify us when you have submitted your PhD for assesment.

PHD DEFENCES

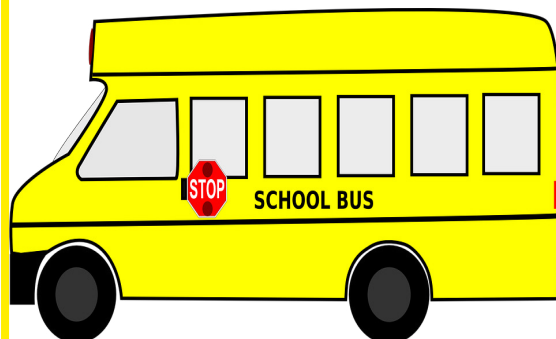
IVP ANNUAL MEETING 7-8 March 2019



IN VIVO PHARMACOLOGY

GRADUATE PROGRAMME FOR IN VIVO PHARMACOLOGY & EXPERIMENTAL ANIMALS

IVP Company
Excursion
Spring 2019



More information will follow
as soon as possible

3rd IVP Animal
Models Workshop
30 August 2019



Programme will be
announced in June 2019

A RESEARCH STAY ABROAD IN SWITZERLAND

by Hannah Louise Zakariassen

When I started working on my PhD project, I was fortunate as my advisor group had an established collaboration with a university group at the University of Zurich. Part of the project plan was a research stay here in Zurich, so here I am at the end of a 3-month stay. We had ambitious plans for studies and experiments to perform during my stay, but as is often the case in science, nothing worked out as planned (read, nothing worked, period). Finally, 2 weeks before my return to Denmark the science gods shined their light upon me and results started to appear. This of course meant very long hours at the end of my stay, whereby I find myself writing this little piece while doing fluorescent confocal imaging on some beautiful mouse brains at eight in the evening. Such is PhD life.



Overall, I have truly loved this experience. There are benefits related to your PhD and future career, such as expanding your network, learning new methods and learning how to adapt to a new science work environment. Experiencing how other groups approach working in science really broadens your mind and way of thinking and it is a fun challenge to be part of a group where the official

language is a mix of German, English, French and Italian. I have also received excellent feedback on my earlier work, and generated some nice new data for my project.



That being said, I have truly cherished getting to know the people and the culture of Switzerland. I have made wonderful new friends that I hope to stay in touch with in the future. I have also learned many fun facts about Switzerland, such as Swiss people love hiking so much, that a 3 hour climbs straight up a mountain are considered a great weekend leisure activity. In addition, all Swiss dishes contain either cheese and/or apple. Pasta Bolognese with applesauce anyone? Switzerland is an amazing country with unbelievable nature. The Alps are only a short drive from downtown Zürich, and I am so happy I got to experience living here during my PhD. All I can say is that if you have the opportunity to go abroad then do it, and make sure to immerse yourself in the local culture as well as the work.



PhD

The Effect of diet-induced obesity on differential metabolic responses in rats and mice

IVP CONTACT INFO

If you have issues to be discussed, things to be clarified, suggestions for the board of the PhD programme, please contact your representatives in advance of next meeting.

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Further information:

For further information, questions or contributions to the newsletter please contact Camilla Elisabeth Søgaard Ebert, camilla.ebert@sund.ku.dk

The next IVP Advisory Board Meeting is scheduled for April 2019. A fixed date is yet to be determined.

IVP ADVISORY BOARD

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