

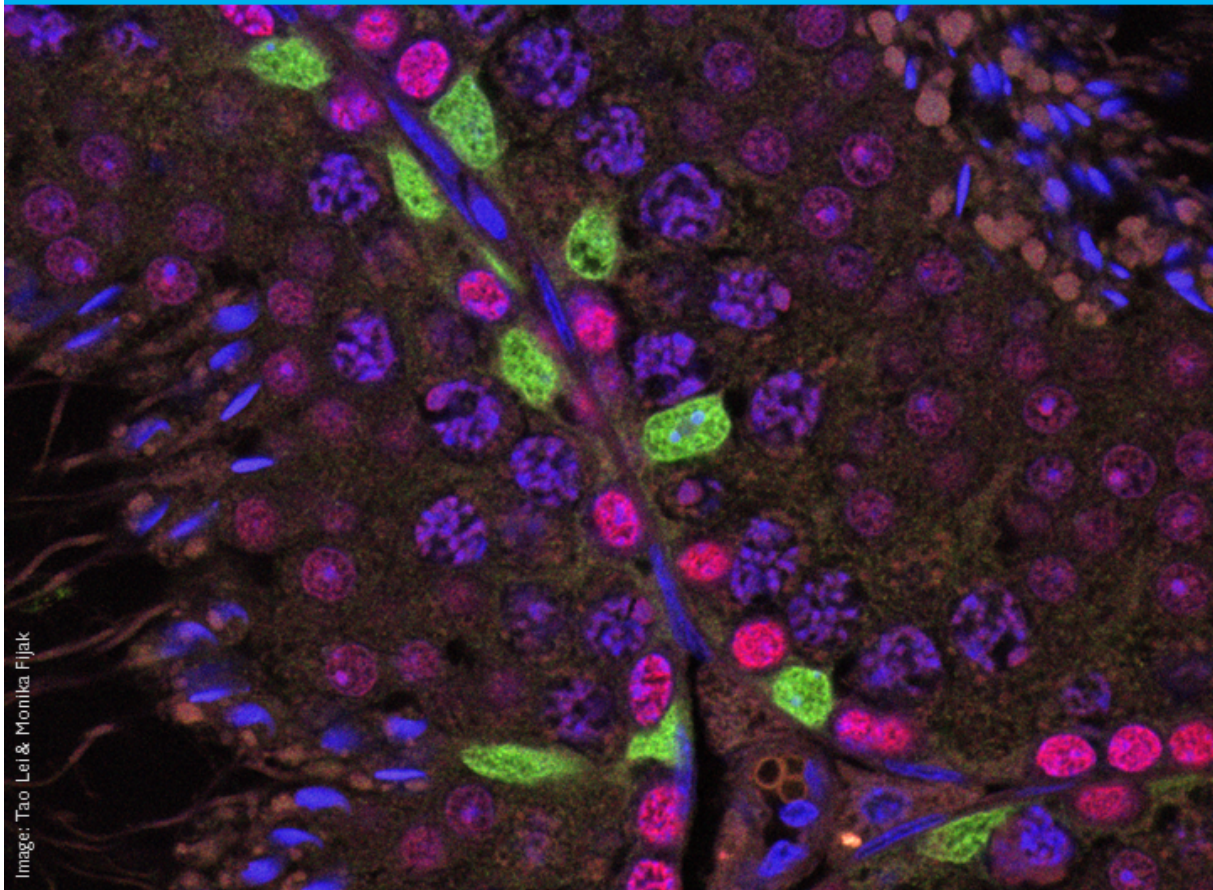


Hessian Centre of Reproductive Medicine



6th International Workshop MOLECULAR ANDROLOGY

Germ cells • Somatic cells • Networks



24-26 September 2019 | Giessen | Germany



DFG Deutsche
Forschungsgemeinschaft



www.molandrol2019.de

Dear Colleagues,

It is a great pleasure for us to welcome you to the 6th International Workshop on Molecular Andrology in Giessen which is organised jointly with the Hessian Centre of Reproductive Medicine at Justus Liebig University. The meeting venue is in the historic teaching building of the Medical Faculty of Justus Liebig University. Following the tradition of the previous workshops, this forum will allow an intensive exchange of recent advances in the exciting field of molecular andrology with a faculty of leading experts. The goal is to highlight cutting-edge research in male reproductive biology from around the world in each concurrent session. Session titles are "Somatic cells – Germ cells - Networks".

Participants from close to 30 countries have submitted more than 80 abstracts for poster or short platform presentation during the workshop. Topics concern mainly basic aspects of testicular and epididymal function. Beside a challenging scientific program, we cordially invite you to informally continue your discussions during the social events such as our congress dinner.

This year the Molecular Andrology Workshop is embedded in an entire week of science with the annual meeting of the Network of Young Researchers in Andrology (NYRA) directly preceding our workshop. The Urology, Pediatric Urology and Andrology Clinic of our university celebrates its 50th anniversary with a symposium straight after the end of the Molecular Andrology Workshop. Meetings are connected with linking plenary lectures.

Being a lively university city, Giessen is located centrally in Germany, only 45 min train ride away from Frankfurt airport. The workshop venue is in walking distance to the original 19th century laboratories of Justus von Liebig, founder of the world's first major school of chemistry and patron of our university, in the "Liebig Museum", as well as the "Mathematikum", the world's first mathematical science centre.

Finally, the generous support of academic institutions and companies should be highlighted. The workshop, however, would not have been possible without the efforts of the Scientific Committee and Local Organising Committee as well as staff members and students of our institutions to whom we are especially grateful.

Welcome to Giessen!

On behalf of the LOC,

Andreas Meinhardt
Hans-Christian Schuppe
Jörg Klug

Workshop Organisation

Andreas Meinhardt
Hans-Christian Schuppe
Jörg Klug

Local Organising Committee

Sudhanshu Bhushan
Monika Fijak
Pia Jürgens
Christiane Pleuger
Eva Wewel

Scientific Committee

Sudhanshu Bhushan
Daniela Fietz
Monika Fijak
Jörg Klug
Constanze Maresch
Andreas Meinhardt
Ralf Middendorff
Adrian Pilatz
Hans-Christian Schuppe
Klaus Steger
Florian Wagenlehner
(all from JLU Giessen)

In Collaboration with

Hessian Centre of Reproductive Medicine (HZRM)
European Academy of Andrology (EAA)
German Society of Andrology (DGA)
German Society for Reproductive Medicine (DGRM)

Venue

Medizinisches Lehrzentrum Seltersberg
Klinikstraße 29, 35392 Giessen, Germany

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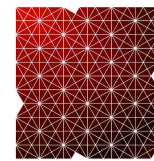
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Previous International Workshops "Molecular Andrology" in Giessen

- "Stem cells – Somatic cells – Germ cells"**, Old Castle Giessen, May 8-10, 2009 (organised by A. Meinhardt, J. Klug & H.-C. Schuppe; proceedings published in *EMBO Rep* **10**, 1087–1092).
- "Testicular pathology, androgen action, sperm function"**, Old Castle Giessen, October 7-9, 2005 (organised by A. Meinhardt & H.-C. Schuppe; proceedings published in *Andrologia* 2005; 37:197-249)
- "New trends in molecular andrology: signals, pathways and interactions in the testis"** Giessen/ Castle Rauischholzhausen, May 3-4, 2002 (organised by W. Miska, T.K. Monsees, H.-C. Schuppe, R. Henkel & W.-B. Schill; proceedings published in *Andrologia* 2003; 35:1-83)
- "Molecular aspects of male reproductive toxicology"** Giessen/ Castle Rauischholzhausen, November 13-14, 1999 (organised by W.-B. Schill, F.-M. Köhn, K.-D. Hinsch & T.K. Monsees; proceedings published in *Andrologia* 2000; 32:186-329)
- "Sperm maturation and function"**, Giessen/ Castle Rauischholzhausen, May 5-6, 1997 (organised by W.-B. Schill, W. Miska & K.-D. Hinsch; proceedings published in *Andrologia* 1998; 30:171-307)

Acknowledgements

The Workshop organisers wish to thank the following academic institutions and companies for their generous support:



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stiftung

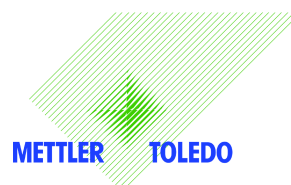


GALEN

MERCK



TECOmedical Group



Oral presentations of invited speakers

The time slot is 30 minutes, 20 minutes for the talk and 10 minutes for the discussion. For a smooth run through the program we would appreciate presenters sticking to the schedule.

Short oral presentations selected from submitted abstracts

The time slot for short orals is 15 minutes, 10 minutes for the talk and 5 minutes for the discussion. For a smooth run through the program we would appreciate presenters sticking to the schedule.

Files for oral presentation

All speakers are asked to approach the media desk on Tuesday and hand in their presentation file on a USB stick, if possible. Make sure that your presentation is running under Office/Powerpoint 16 that will be installed on the presentation laptop. If you cannot hand in your presentation on Tuesday, please do it during the coffee break prior to your session at the latest. Only if there is a very specific reason, a speaker will be allowed to use his own laptop.

Poster presentations

The poster boards are set up in theatre 1 downstairs in the basement. Each board is marked and disposes of sufficient pins. In consideration of a smooth hand-over to the prior and following event, we would appreciate your respecting the designated time:

Time for hanging up posters: Tuesday, 24 September 16:30 – 17:00

Time for taking down posters: Thursday, 26 September 13:00 – 14:00

Posters from JLU participants can stay displayed until Friday.

Luggage storage

Your luggage can be stored at the venue in a separate locked luggage room. However, we accept no responsibility for items left there.

Parking

Due to the very limited parking space on the clinic campus (including the car park) the workshop participants are asked to avoid arriving at the venue by car. The venue building “Medizinisches Lehrzentrum” is well located in 10 minutes walking distance from Giessen main railway station.

Car park fees	< 30 minutes	free
	per hour or part thereof	€ 1,20
	daily rate	€ 9,00








Bus transfer to Workshop Dinner at “Dammühle”, Wehrshausen

Departure: 18:45 h (buses leave on time)

Bus stop: Klinikstrasse, opposite MLZ, across the street

Return transfers provided



-  Venue MLZ (Medizinisches Lehrzentrum, Klinikstrasse 29)
-  Giessen Main Station "Bahnhof"
-  Footbridge Shortcut for Pedestrians
-  Only public access for cars
-  No public access for cars
-  Public car park
-  Bus stop: Departure for workshop dinner

Tuesday, September 24, 2019

- 14:00-15:30** **Registration**
- 15:30-15:45** **Welcome & Opening of the Workshop**
Andreas Meinhardt, Workshop Organisation
Wolfgang Weidner, Dean of the Faculty of Medicine, Justus Liebig University
Wolf-Bernhard Schill, Founding Member of the Hessian Centre of Reproductive Medicine
- 15:45-16:30** **Opening Keynote Lecture**
Chair: Kate Loveland and Constanze Maresch
Infertility due to sperm deficiencies
Christophe Arnoult, Grenoble, France
- 16:30-17:00** **Coffee Break & Installation of Posters**
- 17:00-19:00** **Presentation of Posters**
1st hour even-numbered, 2nd hour odd-numbered posters
- 19:00** **Welcome Reception**

Wednesday, September 25, 2019

- 9:00-13:00** **Session I: Germ Cells**
Chair: Ans van Pelt and Joachim Weitzel
- 9:00-9:30 Spermatogonial stem cell establishment: lessons learned from humans and mice
Miles Wilkinson, San Diego, USA
- 9:30-10:00 Molecular basis of post-meiotic male germ cell genome programming
Saadi Khochbin, Grenoble, France
- 10:00-10:30 Molecular physiology of sperm ion channels
Polina Lishko, Berkeley, USA
- 10.30-11.00** **Coffee Break**
Chair: Andrej-Nikolai Spiess and Nina Neuhaus
- 11:00-11:15 **O1** - pH regulation in mammalian sperm
Grahn E, Kaupp UB and Berger TK (Bonn, Marburg, Germany)
- 11:15-11:30 **O2** - Unfolded protein response-related proteins are present in human sperm and are activated after oxidative stress induction
Santiaqo J, Silva JV and Fardilha M (Aveiro, Portugal)

- 11:30-11:45 **O3** - Germ cell-specific loss of a functioning BTB/POZ domain containing transcription factor causes premature male germ cell aging
Ehrenberg S, Kosan C, Heinzl T and Godmann M (Jena, Germany)
- 11:45-12:00 **O4** - Male germ cell damage induces epididymitis in mice
Wang F, Liu WH, Chen R and Han DS (Beijing, China)
- 12:00-12:15 **O5** - Fertility preservation in pre-pubertal boys with cancer: the cryo-preservation of immature testicular tissue and the isolation of spermatogonial stem cells to encourage *in vitro* spermatogenesis in frozen/thawed testicular samples
Tang S, Zainal Y, Eisler M, Jones C and Coward K (Oxford, UK)
- 12:15-12:30 **O6** - Interacting partners of EPPIN (Epididymal protease inhibitor) in mouse spermatozoa
Mariani NAP, Raimundo TFR, Andrade AJ, Silva AAS, Andrade AD, Kushima H, Santos LD and Silva EJR (Botucatu, Brasil)
- 12:30-12:45 **O7** - Optical recording of rapid non-genomic progesterone signaling events in human sperm
Kierzek M, Miller EW, Strünker T and Brenker C (Münster, Germany)
- 13:00-14:00 Lunch**
- 14:00-18:00 Session II: Somatic Cells**
Chair: Davor Ježek and Katja Teerds
- 14:00-14:30 Testicular organoids to explore stem cell niche, disease and development
João Alves-Lopes, Cambridge, UK
- 14:30-15:00 Development of the human fetal testis - signalling pathways involved and consequences of dysregulation
Anne Jørgensen, Copenhagen, Denmark
- 15:00-15:30 The battle of the sexes: setting the gonad on the testis pathways
Blanche Capel, Durham, USA
- 15:30-16:00 Coffee Break**
Chair: Artur Mayerhofer and Maren Godmann
- 16:00-16:15 **O8** - Retinoblastoma protein represses E2F3 to maintain Sertoli cell quiescence in mouse testis
Rotgers E, Cisneros-Montalvo S, Nurmio M and Toppari J (Turku, Finland)
- 16:15-16:30 **O9** - Finding needles in haystacks – An innovative strategy to identify novel genes causing Sertoli-cell-only syndrome
Emich J, Friedrich C, Wöste M, Ruckert C, Kliesch S, Dugas M and Tüttelmann F (Münster, Germany)
- 16:30-16:45 **O10** - CCDC42 localizes to manchette, HTCA and tail in male germ cells but is a novel centrosomal protein in somatic cells
Tapia Contreras C and Hoyer-Fender S (Göttingen, Germany)
- 16:45-17:00 **O11** - The prorenin receptor is required for spermatogenesis in mice
Bagheri-Fam S, Ahmady S, La HM, Bernard P, Hobbs RM, Pask AJ and Wilhelm D (Melbourne, Australia)

- 17:00-17:15 **O12** - Mast cells in human foetal testis and epididymis: a comparative study
Himmelreich Peric M, Krsnik D, Jezek D, Goluza T, Katusic Bojanac A and Kos M (Zagreb, Croatia)
- 17:15-17:30 **O13** - A novel toolkit for cell specific functional *in vivo* and structural *in situ* analysis of the mouse testis
Fleck D, Uesaka N, Fiscoeder J, Kenzler L, Moosmann R, Mundt N, Spehr J and Spehr M (Aachen, Germany)
- 18:45 **Bus departure from conference site**
- 19:30 **Workshop Dinner at the "Dammühle", Wehrshausen**

Thursday, September 26, 2019

- 9:00-13:00** **Session III: Networks**
Chair: Stefan Schlatt and Sandra Amaral
- 9:00-9:30 Single cell transcriptomics during sex determination
Serge Nef, Geneva, Switzerland
- 9:30-10:00 **EAA Lecture**
The "omics" of human male infertility:
integrating big data in a systems biology approach
Rafael Oliva, Barcelona, Spain
- 10:00-10:30 New insights into mammalian testis differentiation:
A lesson from Lillie's Freemartin
Humphrey Yao, Research Triangle Park, USA
- 10:30-11:00** **Coffee Break**
Chair: Daniela Patricio and Jean-Pierre Allam
- 11:00-11:15 **O14** - Lack of androgen receptor SUMOylation results in male infertility due to epididymal dysfunction
Zhang FP, Malinen M, Mehmood A, Lehtiniemi T, Elo LL, Ohlsson C, Kotaja N, Poutanen M, Palvimo JJ and Sipilä P (Turku, Finland)
- 11:15-11:30 **O15** - Role of occludin in homeostatic regulation of epididymal microenvironment
Liu BY, Zhang BL, Gao DY, Zhang ZP, Xue XB, Li Q, Smith T, Breton S, Zhang YL, Li JS and Shum W (Shanghai, China; Boston, USA)
- 11:30-11:45 **O16** - Mouse testicular macrophages express transient receptor potential channel type V2 (TRPV2) - a cation channel involved in testicular inflammation in a mouse model for infertility (AROM+)
Eubler K, Kaseder M, Missel A, Strauss L, Poutanen M and Mayerhofer A (Munich, Germany; Turku, Finland)

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- 11:45-12:00 **O17** - Characterization of CCR6 and CCL20 in testis and ejaculates from men with chronic genital tract inflammation
Duan YG, Yu CF, Yeung WSB, Haidl G and Allam JP (Shenzhen, China; Bonn, Germany)
- 12:00-12:15 **O18** - Defining the genetic causes of male infertility using flies and humans
Cauchi LM, Hartmann K, Houston BJ, Nagirnaja L, Aston KI, Conrad DF, Fietz D, O'Bryan MK and Burke R (Melbourne, Australia; Giessen, Germany; Salt Lake City, Beaverton, USA)
- 12:15-12:30 **O19** - Testicular bioenergetics and sperm morphology are influenced by caloric restriction in rats
Martins AD, Jarak I, Morais T, Carvalho RA, Oliveira PF, Monteiro MP and Alves MG (Porto and Coimbra, Portugal; London, UK)
- 12:30-12:45 **O20** - HSD17b3 knockout mice serve as a model to define mechanisms behind the altered endocrine phenotype of patients with HSD17b3 mutations
Junnila A, Huhtaniemi R, Zhang FP, Strauss L, Kotaja N, Ohlsson C, Huhtaniemi I, Sipilä P and Poutanen M (Turku, Finland; Gothenburg, Sweden)
- 13:00-14:00 Joint Lunch with “50th Anniversary of Urology”**
- 14:00-14:45 Closing Keynote Lecture**
Chair: *Florian Wagenlehner and Raul Sanchez*
Viral infections and innate immunity in the male genital tract
Nathalie Dejuçq-Rainsford, Rennes, France
- 14:45-15:00 Farewell**
Jörg Klug and Hans-Christian Schuppe