

EAA Andrology Training Center  
Centre Report

**2024**

[2021-2023]

## CENTRE REPORT: Giessen



### History of the Centre

The history of Andrology at the University of Giessen relates back to 1951, when a working group for the study of male hypogonadism was founded by members of the Department of Internal Medicine, the Outpatient Dept. of Internal Medicine, the Dept. of Dermatology, and the Institute of Anatomy. A Department of Andrology at the Dept. of Dermatology at Giessen University was founded in 1968 and was converted into a Chair of Andrology and Venereology in 1980. In 1989, a new Chair of Dermatology and Andrology at the Dept. of Dermatology was taken over by W. B. Schill.

At the same time, a Study Group for Reproductive Medicine has been established, consisting of additional members of the Department of Obstetrics and Gynaecology, a Working Group of Endocrinology, and the Veterinary Clinic.

With the appointment of W. Weidner as Chairman of the Dept. of Urology in 1993, the Department of Urology joined the Study Group for Reproductive Medicine. In 1999, this network of collaborations was formally established as Hessian Centre of Reproductive Medicine. Moreover, both research and training activities were intensified in 1998, when the universities of Giessen and Marburg became hosts of a graduate research training group of the Deutsche Forschungsgemeinschaft (DFG) entitled "Cell-Cell-Interaction in Reproduction".

This program was extended until 2005. In view of growing interest in clinical andrology and related basic research, the Andrology Centre has been extended to include the Medical Department and Polyclinic III (Endocrinology), a certified European Training Centre for Endocrinology (U.E.M.S.), headed by Prof. Schaeffler, and the Unit of Reproductive Biology in the Department of Anatomy and Cell Biology, headed by Prof. A. Meinhardt.

These structural changes of the centre were part of the re-evaluation process in 2003. Beginning in 2009, the faculty of the Justus-Liebig-University Giessen and the UKGM GmbH decided to transfer the whole scientific and clinical andrological activities of the Department of Dermatology and Andrology to the Department of Urology, Pediatric Urology and Andrology.

With this consented decision, the new Department of Dermatology stopped the historical tradition to diagnose and to treat andrological patients. In detail, the clinical andrological outpatient department (Prof. Dr. H.-C. Schuppe), including the andrological laboratory, and the cryobanking facilities have been transferred, histopathological work-up and the resp. collections of testicular biopsies are now integrated in the Giessen testicular biopsy repository (until Sept. 2018: Prof. Dr. M. Bergmann, since Oct. 2018: Prof. Dr. D. Fietz).

Prof. Weidner retired as the chairman of the Department of Urology, Pediatric Urology and Andrology in 2015 and Prof. Dr. F. Wagenlehner has been appointed as the Chairman of the department. The Andrology Unit in the Dept. of Urology including Andrological Urology and surgery is headed by Priv.-Doz. Dr. T. Diemer. Also in 2015, Prof. Weidner left his position as director in the EAA Training Center Giessen, followed by co-director T. Diemer.

## **Organization of Centre**

---

### **The EAA training centre Giessen consists of the following core units:**

- Department of Urology, Pediatric Urology and Andrology (Head: Prof. Dr. F. Wagenlehner)
- Medical Department and Polyclinic III –Endocrinology- (Head: Prof. Dr. Schäffler; cooperating partner: Prof. Dr. T. Linn (retired))
- Department of Anatomy and Cell Biology, Unit for Reproductive Biology (Head: Prof. A. Meinhardt)
- Testicular Biopsy Repository, Department of Veterinary Anatomy, Histology and Embryology (Head: Prof. Dr. D. Fietz) (together with Prof. Dr. HC. Schuppe)
- Department of Human Genetics (Head: Prof. Dr. D. Nolte)
- Section Molecular Andrology (Head: Prof. Dr. U. Schadgarsurengin)

### **Cooperating partner departments (within Universities of Giessen and Marburg):**

- Department of Gynecology and Obstetrics (Head: Prof. Dr. med. I. Meinhold-Heerlein)
- Department of Psychosomatic Medicine an Psychotherapy (Head: Prof. Dr. med. J. Kruse)
- Department of Reproductive Medicine (Gynecology), Marburg (Head: Prof. Dr. med. V. Ziller)
- IVF-Center Wetzlar (Head: Dr. med. A. Hadjimohammed)

**Centre-Directors:** Priv.-Doz. Dr. Thorsten Diemer / Prof. Dr. Andreas Meinhardt

**Name and address of Centre****Unit Name: EAA Andrology Training Centre Giessen****Type of Centre**University University Hospital Private Centre 

Other (please specify) ----

**1. Co-Director**Prof. Dr. A. MeinhardtAcademician  Regular Member  EAA Certified Clin. Andrologist **2a. Co-Director/Clinical responsible** Priv.-Doz. Dr. med. Th. DiemerAcademician  Regular Member  EAA Certified Clin. Andrologist **2b. Clinical responsible**Prof. Dr. H.-C. SchuppeAcademician  Regular Member  EAA Certified Clin. Andrologist Please find the ORGANIZATIONAL CHART (HZRM) at page 28

## Educational activities I

### **Educational activities: Workshops and Congresses**

- 32<sup>nd</sup> Annual Meeting of the German Society of Andrology – Deutsche Gesellschaft für Andrologie (DGA), Gießen. 8.-10. Sept. 2022 (Congresspresident: D. Fietz)
- 8<sup>th</sup> EPIDIDYMIS Workshop 2022, Gießen (Organizers: A. Meinhardt, R. Middendorff)
- 47<sup>th</sup> Joint Veterinary – Human Reproductive Medicine Meeting, in conjunction with 55<sup>th</sup> Annual Meeting “Physiology & Pathology of Reproduction”, Online, March 2 – 4, 2022 (Co-Organizer: D. Fietz)
- 6<sup>th</sup> International Workshop on Molecular Andrology 2019 (24 – 26 Sept. 2019), Gießen (Organizers: A. Meinhardt, H.-C. Schuppe, J. Klug)
- 30<sup>th</sup> Annual Meeting of the German Society of Andrology - *Deutsche Gesellschaft für Andrologie (DGA)* 2018 in Gießen, Tagungspräsident und wissenschaftlicher Leiter: PD Dr. Th. Diemer

### **Educational activities: Online Symposia** (Organizers: S. Bhushan, D. Fietz, M. Fijak, D. Pleuger)

- 2021, 22 Sept: 1<sup>st</sup> Virtual Mini-Symposium “Testicular Infection, Inflammation and Cancer”
- 2022, 7-8 Dec: 2<sup>nd</sup> Virtual Mini-Symposium “Testicular Infection, Inflammation and Cancer – Reproductive Biology meets Immunology”
- 2023, 29-30 Nov: 3<sup>rd</sup> Virtual Symposium on "Male Reproductive Immunology – At the Interface of Tolerance and Defense"

### **Educational and clinical activities: Regular Conferences**

- Conference Urology /Andrology; Case discussions, M&M: every Friday
- Conference “Testis Histology”: Profres. Fietz/Schuppe: every Friday

## Educational activities II

---

### GGL courses 2021-2023

**GGL Schedule winter term 2020/2021**

#### „Impact of the immune system and epigenetic modifications on male and female reproduction“

04.11.2020	PhD Seminar 1	
11.11.2020	Immune system part I An essential player in health and disease	Gregor Bein
18.11.2020	Immune cell interaction and tumor progression	Rajkumar Savai, Bad Nauheim
25.11.2020	Testicular macrophages	Michael Sieweke Dresden
02.12.2020	PhD Seminar 2	
09.12.2020	Immune system part II Viral infection of testis and epididymis / NETosis	Adrian Pilatz / Ivan Conejeros
16.12.2020	Immune system part III Immune cells and bacterial infection of testis and epididymis	Sudhanshu Bhushan
13.01.2021	PhD Seminar 3	
20.01.2021	Epigenetics part I General aspects of epigenetics and techniques	Temuujin Dansranjavin
27.02.2021	Epigenetics part II Nutrition and physical health – impact on fertility?	Klaus Steger
03.02.2021	Immunology of the placenta	Udo Markert, Jena
10.02.2021	Epigenetics part III Epigenetics and female fertility	Christine Wrenzycki
17.02.2021	Epigenetics part II Epigenetics and male fertility	Undraga Schagdarsurengin

**HZRM/ GGL/ IRTG Seminare SS2021**  
**Emerging and new „old“ techniques to analyse fertility**

Date and time: Wednesdays from 14th April until 14th July 2021, 5pm

Venue: Cisco Webex platform (please follow the link <https://uni-giessen.webex.com/uni-giessen-en/j.php?MTID=m2501cf9f913e7f761ba4cb4e436906c0>)

Date	Topic	lecturer
14.4.21	<i>It's in your hands to receive good data: The better the input, the better the result. Panel Design &amp; Cell Sorting</i>	Ali Gawanbacht, BD Life Sciences
21.4.21	<i>CLSM in laboratory research</i>	Klaus Deckmann, JLU
28.4.21	<i>Video microscopy and drugs</i>	Andrea Mietens, JLU
5.5.21	<i>Examining human testicular development and function using tissue culture models</i>	Anne Joergensen, Copenhagen
12.5.21	<i>Soft tissue micro CT imaging of the urogenital tract</i>	Marian Kampschulte, JLU
19.5.21	<i>Resolving the transcriptional landscape in situ - from methodology to application</i>	Joakim Lundeberg, Sweden
26.5.21	<i>Small RNAs and their role in human reproduction</i>	Andrej Spiess, Hamburg
2.6.21	<b>European Testis Workshop</b>	
9.6.21	<i>Electron microscopy: Principles and fundamentals</i>	Ulrich Gärtner, JLU
16.6.21	<i>Functional analysis of sperm - Keep on moving!</i>	Christiane Pleuger, JLU
23.6.21	<i>IRTG: What's up?</i>	Andreas Meinhardt, JLU
30.6.21	<i>Raman microspectroscopy</i>	Raul da Costa, Münster
7.7.21	<i>Mass spec and beyond - Deciphering structural and spatial complexity with mass spectrometry imaging</i>	Sven Heiles, JLU
14.7.21	<i>tba</i>	David Fleck, Aachen

**HZRM/ GGL/ IRTG Seminar series WS2021/20222**  
**Application in research and clinics, assisted reproduction techniques (IVF; ICSI; TESE; sperm selection), basic morphology**

Date and time: Wednesdays from 20th October 2021 until 16th February 2022, 5pm

Venue: Cisco Webex Event

<https://uni-giessen.webex.com/uni-giessen-en/onstage/g.php?MTID=eb172a9e7ee680f07238510629dd27b62>

Meeting number: 2732 932 9143

Password: bkSQ6arJF9

Please note that seminars will be recorded and shared on internal pages of IRTG.

Date	Topic	Lecturer
20.10.	Histological analysis of testis samples incl. score count analysis	Daniela Fietz, Vet. Anatomy, Giessen
27.10.	PhD Seminar Meeting our new members	Students
03.11.	Comparative morphology of accessory sex glands	Middendorff group, Anatomy and Cell Biology, Giessen
10.11.	Current andrological aspects of assisted reproduction - diseases, applications	Adrian Pilatz, UKGM, Giessen
17.11.	Prenatal diagnostics	Ivonne Bedei, UKGM, Giessen
24.11.	Ejaculate analysis incl. sperm morphology, cryopreservation	Hans-Christian Schuppe, UKGM, Giessen
1.12.	Hormone levels – assessment, evaluation and application	Gerhard Schuler, Vet. Obstetrics and Andrology, Giessen
8.12. <b>9am</b>	iBlastoids - the future of embryonic research?	Jose Polo, Melbourne, AUS
15.12.	The diabetic patient – medical evaluation and andrological research	Thomas Linn / Constanze Maresch, UKGM, Giessen
12.01.	Microengineered stem cell models for synthetic embryology	Yi Zheng, Michigan, USA
19.1.	TESE procedure incl. cryopreservation and sampling	Florian Dittmar, UKGM, Giessen
26.01.	A Single Cell Understanding of Human Spermatogonial Stem Cells	Jingtao Guo, Utah, USA
02.02. <b>9am</b>	Discovering Cell Identities of Human Testicular Tumour Cells	Ben Nathaniel, Melbourne, AUS
09.02.	Fertility preservation in boys - an experimental approach	Nina Neuhaus, Münster
16.02.	IUS, IVF, ICSI – what to do with couples attending ART	Volker Ziller, UKGM, Marburg

internal seminar - students of Section 6

external seminar - all members of Section 6

**Practical course**  
Registration required via e-mail to [pia.juergens@anatomie.med.uni-giessen.de](mailto:pia.juergens@anatomie.med.uni-giessen.de)

Date/Time	Topic	Lecturer
planned	(sc)RNAseq: How to use databases	Bioinformatics and Systems Biology
	max. number of participants: 10	
	Venue: Webex	
tba	Flow cytometry - let it shine!	Monika Fijak
	max. number of participants: 8	
	Venue: Institute for Anatomy and Cell Biology	
tba	Electron microscopy imaging: Look for details!	Uli Gärtner
	max. number of participants: 6	
	Venue: Institute for Anatomy and Cell Biology	

**HZRM/ GGL/ IRTG Seminar series Summer Term 2022**  
**Infections of the reproductive tract**  
**New therapeutics, clinical trials and connection of research and industry**

Date and time: Wednesdays from 13th April until 15th July 2022, 5pm

Venue: Either online via BigBlueButton (<https://webconf.hrz.uni-giessen.de/b/dan-7se-2ju-p7p>) => marked with "O"  
 or in presence at the Institute for Anatomy and Cell Biology, Kleiner Hörsaal, Aulweg 123, marked with "P"

Please note that seminars can be recorded and shared on internal pages of IRTG.

No.	Date	Title of presentation	Speaker	Venue
1	13.4.22	Working in a pharmaceutical company	Christine Kauerhof, ThermoFisher Nour Nicolas, AstraZeneca	O
2	20.4.22	Covid-19 and pregnancy	Nardhy Gomez-Lopez, Wayne State University, USA	O
3	27.4.22	PhD Students take over Part I	NN	P
4	4.5.22	Sexually transmittable infections (STIs) human	Florian Wagenlehner, UGKM	P
5	11.5.22	Reducing waste and increasing value in biomedical research	Ulrich Dirnagel, Charité, Berlin	O
6	18.5.22	PhD Students take over Part II	NN	P
7	25.5.22	New therapeutics in clinical trials - company's view	NN, AstraZeneca	O
8	1.6.22	IRTG Milestone Meeting / Retreat		
9	8.6.22	Sperm-induced NETosis and METosis	Fabiola Zambrano, Universität de la Fontera, Chile	O
10	15.06.22 9am	Anti-viral defenses against persistent viral infections in the male reproductive tract	Rukmali Wijayaratna, Monash University, Australia	O
11	22.6.22	Sexually transmittable infections (STIs) animals	Christine Wrenzycki, JLU	P
12	29.6.22	New therapeutics in clinical trials - clinicians view	Bastian Eul, UKGM	P
13	06.07.22 9am	The impact of Chlamydia infection and vaccination on the male reproductive tract	Emily Bryan, Queensland University of Technology, Australia	O
14	13.7.22	Research in industry - where are the possibilities?	Monica Lispi, Merck	O

internal seminar - students of Section 6

external seminar - all members of Section 6

**Practical courses**  
 Registration required via e-mail to [pia.juergens@anatomie.med.uni-giessen.de](mailto:pia.juergens@anatomie.med.uni-giessen.de)

Date/Time	Topic	Lecturer
Tues, 10th May 2022	How to write an Animal Experiment Application - legal basics	Dr. Janne Bredehöft Animal Welfare Office, JLU
1-3pm	max. 12 participants	
Tues, 17th May 2022	How to write an Animal Experiment Application - discussion on projects, common pitfalls	Dr. Janne Bredehöft Animal Welfare Office, JLU
1-5pm	max. 12 participants (divided in groups)	
tba	Statistics - experimental design and basis bioinformatics	PD Dr. Kathrin Büttner Working group "Biomathematics", Faculty of Veterinary Medicine

**GGL Seminar series Winter Term 2022/2023**  
**Clinical and scientific aspects of male and female reproductive medicine**

Date and time: Wednesdays from 19th October until 8th February 2022, 5pm  
Venue: Institute for Anatomy and Cell Biology, Kleiner Hörsaal, Aulweg 121 or via BBB

No.	Date	Title of presentation	Speaker
1	19.10.22	New myths and facts about endometriosis	Lutz Konrad, Dep. Gynecology and Obstetrics, JLU
2	26.10.22	Effects of ageing on the male germline	Sandra Laurentino, Center of Reproductive Medicine and Andrology, Münster
3	2.11.22	Sertoli cells – how to become immortal	Lutz Konrad, Center of Gynecology and Obstetrics, JLU
4	9.11.22	Advanced genetic models to study the immune system I: From the basics to the study of dynamic processes in vivo	Andreas Krueger, Molecular Immunology, JLU
5	16.11.22	Advanced genetic models to study the immune system II: Tools for analysis of the adaptive immune response and humanized mice	Andreas Krueger, Molecular Immunology, JLU
6	23.11.22 2pm-6pm	GGL Retreat	all students
7	30.11.22 9am	Spatial Transcription - Immune cells in TGCTs	Sarah Moody, Hudson Institute of Medical Research, Monash University, Australia
8	07./08.12.22	2nd Testis immunology Symposium (online)	
9	14.12.22	Recent development in ovarian cancer treatment	Ahmad Fawzi Hussain, Dep. Gynecology and Obstetrics, JLU
10	21.12.22	Job opportunities in the industry: Did you consider a service provider?	Christine Reich, PharmaLex
11	09.01.23 4:30-6pm	DFG Funding Opportunities for Postdocs	DFG Seminar - external link will be provided
12	18.1.23	IVF	Phillip Holz, Kinderwunschzentrum Mittelhessen, Wetzlar
13	25.1.23	Viruses and the Reproductive System	Janis Müller, Institute of Virology, Philipps University Marburg
14	1.2.23	Fertility in spinal cord injured patients	Sonja Heitkamp, Dep. Neuro-Urology, Werner Wicker Clinic, Bad Wildungen
15	8.2.23	Infections in female reproductive tract	Ivo Meinhold-Heerlein, Dep. Gynecology and Obstetrics, JLU

Practical courses

Registration required via e-mail to pia.juergens@anatomie.med.uni-giessen.de

Date/Time	Topic	Lecturer
tba	Flow cytometry	Dr. Monika Fijak Institute for Anatomy and Cell Biology, JLU
12.01.2023	Open Access Publishing	Helena Meyer University Library, JLU
	4 hours, max. 15 students; Institute for Veterinary Anatomy, room 102f	
summer term 2023	Statistics - experimental design and basic bioinformatics	PD Dr. Kathrin Büttner Working group "Biomathematics", Faculty of Veterinary Medicine

**GGL/HZRM Seminars Summer Term 2023**  
**Reproduction in Men and Animals and applied techniques**

Date and Time Wednesday from April 12th to July 12th 2023, 5pm  
Venue Institute for Veterinary Anatomy, Seminar Room 102f or via BigBlueButton

No.	Date	Title of presentation	Speaker
1	12.04.2023		
2	19.04.2023	The Biology of Sex Steroids - From a Comparative View	Prof. Gerhard Schuler, Clinic of Obstetrics, Gynecology and Andrology, JLU
3	26.04.2023	SWEETALK: Maternal to placental communication shaping pregnancies outcome	Prof. Sandra Blois, Department of Obstetrics and Fetal Medicine, Medical Center Eppendorf, Hamburg
4	03.05.2023		
5	10.05.2023	FcRL3, named MAIA, is newly identified ligand for human sperm-oocyte membrane binding and fusion	Prof. Kateřina Komrsková, Institute of Biotechnology of the Czech Academy of Sciences, Vestec
6	17.05.2023		
7	24.05.2023	Video microscopy and pharmacological studies	Dr. Beatrix Bester, Institute of Anatomy and Cell Biology, JLU
8	31.05.2023	Germ granule-mediated RNA regulation in the male germline	Prof. Noora Kotaja, Institute of Biomedicine, University of Turku, Finland
9	07.06.2023		
10	14.06.2023 3pm	Steroidmetabolomics in Clinic and Research	Prof. Stefan Wudy, Pediatric Endocrinology & Diabetology, Center of Child and Adolescent Medicine, UKGM
11	21.06.2023	European Testis Workshop	
12	28.06.2023	ARTificial Reproductive Techniques in Birds	Prof. Michael Lierz, Clinic for Birds, Reptiles, Amphibes and Fishes, JLU
13	05.07.2023		
14	12.07.2023	Extracellular vesicles in semen as innate antiviral factors	Janis Müller, Institute of Virology, Philipp University Marburg

**Practical courses**  
Registration required via e-mail to [pia.juergens@anatomie.med.uni-giessen.de](mailto:pia.juergens@anatomie.med.uni-giessen.de)

Date/Time	Topic	Lecturer
tba	Flow cytometry	
2 day course	max. 12 students, Institute for Anatomy and Cell Biology, Aulweg 123	Dr. Monika Fijak Institute for Anatomy and Cell Biology, JLU
tba	Statistics - experimental design and basic bioinformatics	
	max. x students, Institute for Veterinary Anatomy, Frankfurter Straße 98, Seminar room 102f	PD Dr. Kathrin Büttner Working group "Biomathematics", JLU
tba	Spermogramm according to WHO	
1 day course	max. 10 students, Clinic for Dermatology, Gaffkystraße 14	Prof. Dr. Hans-Christian Schuppe Clinic for Urology, Pediatric Urology and Andrology, UKGM

## GGL/HZRM Seminars Winter Term 2023/2024

Date and Time Wednesday from October 25th 2023 to February 7th 2024, 5pm

Venue Institute for Veterinary Anatomy, Seminar Room 102f

Zoom Link

Institute for Anatomy and Cell Biology, Kleiner Hörsaal

No.	Date	Title of presentation	Speaker
1	25.10.2023	Caspase-8 biology in human ovarian Cancer: In vivo and in vitro study	Mohsen Aberoumandi, JLU
2	01.11.2023	The role of resident macrophages in the immune response to bacterial infection of the murine epididymis	Dingding Ai, JLU
3	08.11.2023	Behind the Scenes; regulatory affairs around laboratory husbandry	Daniel Zahner, JLU
4	15.11.2023	Endocrine disruptors and mechanisms of male reproductive toxicity	Monica Kam Draskau, Denmark
5	23.11.2023	Morphogenesis of the Wolffian/epididymal duct: a rather long epithelial tube	Barry Hinton, Virginia, USA
6	29.11.2023	3rd Virtual Mini-Symposium on Male Reproductive Immunology - At the Interface of Tolerance and Defense	
7	06.12.2023	Characterization of immune cell populations in the male reproductive tract of the mouse	Vishnu Kumar, JLU
8	12.12.2023	DFG-Förderangebote für die wissenschaftliche Karriere (German)	external link
9	20.12.2023	Integrating Structural and Functional Genomics Using Genome-wide CRISPR-Cas9 Screens	Roland Schmitz, UKGM
10	10.01.2024	Physiological and molecular investigations on the contribution of natriuretic peptide hormones to vascular contractions for luminal transport	Christine Rager, Monash University
11	17.01.2024	Role of the placenta in linking maternal and fetal developmental physiology	Amanda Sferruzzi-Perri, UK
12	24.01.2024	tba	Rod Mitchell, Scotland
13	31.01.2024	IVF, ICSI and others – not the same, but similar in animals and humans	Christine Wrenzycki, JLU
14	07.02.2024	Dissecting the role of activin A and CCR2 in chronic testicular inflammation	Hiba Hasan, JLU

### Practical courses

Date/Time	Topic	Lecturer
tba	Flow cytometry	
2 day course	max. 12 students, Institute for Anatomy and Cell Biology, Aulweg 123	Dr. Monika Fijak Institute for Anatomy and Cell Biology, JLU
tba	Spermogramm according to WHO	
1 day course	max. 10 students, Clinic for Dermatology, Gaffkystraße 14	Prof. Dr. Hans-Christian Schuppe Clinic for Urology, Pediatric Urology and Andrology, UKGM
24.11.2023	Using PowerPoint without PowerPoint using you	
3-4:30 pm	tba	Prof. Barry Hinton University of Virginia

## Research activities (Group Funding), Details see Research funding

---

- The DFG funded Clinical Research Unit KFO 181 "Male factor infertility due to impaired spermatogenesis" (coordinator: Prof. Dr. Wolfgang Weidner; head: Prof. Dr. Klaus Steger, Department of Urology, Pediatric Urology and Andrology) has been established in 2008 and received funds until 2011 (KFO 181/1). An extension for another three years (**2011 - 2014**) has been granted (KFO 181/2). The aim of the research group is to improve the diagnosis of male infertility by investigating the molecular causes of impaired testicular sperm cell formation.
- The LOEWE Focus Group MIBIE "Male Infertility and Urogenital Infections" (Spokesman: Prof. Dr. W. Weidner) is being funded from **2011-2014** with approx. 4.3 million Euros by the State of Hessen. Justus Liebig University Giessen is spearheading the group and is in cooperation with the Philipps University Marburg and the University of Applied Sciences Giessen-Friedberg. Associated partners of the focus group are the Child Wish Center of Middle Hessen, the School of Veterinary Medicine Pennsylvania (USA), the Rhineland-Westphalia Technical College Aachen, and the Veterinary College Hannover. The focus is on infectious and inflammatory diseases of the male reproductive tract that lead to fertility disorders. In a cooperative approach, this central topic is dealt with comprehensively in two areas: scientifically and clinically. The overriding goal of this translational focus is, to combine basic research with disease-oriented research to develop improved diagnostic and therapeutic concepts for male infertility
- The DFG Research Unit Sulfated Steroids in Reproduction (FOR 1369/ 7 projects **2013 - 2016** / Speaker: Prof. Dr. Martin Bergmann; Coordinator: Prof. Dr. Joachim Geyer) has been established in 2010. Participants are members of the Faculties of Veterinary Medicine and Medicine of the Justus Liebig University Giessen and the Institute of Biochemistry of the Universität des Saarlandes. As sulphated steroids have for a long time thought to represent inactive metabolic products, this project aims to investigate uptake of sulphated steroids in cells of the male and female reproductive tract and transfer into active hormones.
- DFG International Research Training Group (IRTG) between Giessen and Monash University, Melbourne, Australia on "Male Reproductive Health and Disease" (German Speaker: Prof. Meinhardt) is established since 2013 and receives funds until 2017 (**2013-2017**). An extension for a further 4.5 years has been granted for the period **2017 - 2022** (11 projects). The aim of the IRTG is to train doctoral and postdoctoral students within the framework of an interdisciplinary research program and to provide structures for cooperation through an accompanying study program.

## Clinical activities

The Department of Urology, Pediatric Urology and Andrology currently has 47 regular beds (inpatient care) and offers the entire conservative and surgical treatment spectrum of Urology, Pediatric Urology and Andrology. Every year, our team treats more than 2.300 inpatients and more than 13.000 outpatients. The department currently employs 16 physicians with state-of-the-art technology to ensure optimal patient care. The Urological department is a certified training center of the EBU (European Board of Urology) for the acquisition of the European board-certified specialist in urology (FEBU) and the EAA (European Academy of Andrology) for the acquisition of the qualification "Clinical Andrologist". In Andrology, clinical sections on surgical, conservative, and molecular andrology have been established. A cryobank is available. In addition, the clinic is a central component of the Hessian Center for Reproductive Medicine (HZRM) and the second opinion center for testicular tumors (Deutsche Krebsgesellschaft, DKG).

The Department of Urology, Pediatric Urology and Andrology offers a broad range of andrological in- and outpatient services as well as laboratory facilities: In 2023 approx. 1.600 andrological patients attended our centre as outpatients and approx. 250 patients as inpatients for andrological surgery or testicular tumors.

### Name and address of Centre

#### EAA Andrology Training Center Giessen

Justus-Liebig-University Giessen, Klinikstrasse 33, 35392 Gießen

### Type of Centre

University	<input checked="" type="checkbox"/>
University Hospital	<input checked="" type="checkbox"/>
Private Centre	<input type="checkbox"/>
Other (please specify)	<hr/>

### Type of Centre

University Hospital	<input checked="" type="checkbox"/>
---------------------	-------------------------------------

### 1. Co-Director

#### Priv.-Doz. Dr. Thorsten Diemer

Academician	<input checked="" type="checkbox"/>	Regular Member	<input type="checkbox"/>	Clinical Andrologist	<input checked="" type="checkbox"/>
-------------	-------------------------------------	----------------	--------------------------	----------------------	-------------------------------------

### 1a. Co-Director (if more institutions)

#### Prof. Dr. Andreas Meinhardt

Academician	<input checked="" type="checkbox"/>	Regular Member	<input type="checkbox"/>	Clinical Andrologist	<input type="checkbox"/>
-------------	-------------------------------------	----------------	--------------------------	----------------------	--------------------------

### 2a. Clinically responsible

#### Prof. Dr. Hans-Christian Schuppe

Academician	<input checked="" type="checkbox"/>	Regular Member	<input type="checkbox"/>	Clinical Andrologist	<input checked="" type="checkbox"/>
-------------	-------------------------------------	----------------	--------------------------	----------------------	-------------------------------------

### 3. Present Staff (Senior Clinicians and Scientists)

1)	Name	<b>Prof. Dr. Florian Wagenlehner</b>
----	------	--------------------------------------

Dr. med.

2)	Degree	Urologist
----	--------	-----------

Academician	<input type="checkbox"/>	Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist	<input type="checkbox"/>
-------------	--------------------------	----------------	-------------------------------------	----------------------	--------------------------

2)	Name	<b>Prof. Dr. Adrian Pilatz</b>
----	------	--------------------------------

Dr. med.

2)	Degree	Urologist
----	--------	-----------

Academician	<input type="checkbox"/>	Regular Member	<input type="checkbox"/>	Clinical Andrologist	<input type="checkbox"/>
-------------	--------------------------	----------------	--------------------------	----------------------	--------------------------

3)	Name	<b>PD Dr. Monika Fijak</b>		
	Degree	Dr. rer. physio.l		
	Speciality	Biology		
Academician		Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist
4)	Name	<b>Dr. Sudhanshu Bhushan</b>		
	Degree	Dr. hum. biol.		
	Speciality	Biology		
Academician		Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist
5)	Name	<b>Dr. Jörg Klug (retired)</b>		
	Degree	Dr. rer. nat.		
	Speciality	Biology		
Academician		Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist
6)	Name	<b>Prof. Dr. Daniela Fietz</b>		
	Degree	Dr. med. vet.		
	Speciality	Veterinarian		
Academician		Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist
7)	Name	<b>Prof. Dr. Klaus Steger (retired)</b>		
	Degree	Dr. rer. nat.		
	Speciality	Biology		
	Full time/part time	Retired 2021		
Academician		Regular Member	<input checked="" type="checkbox"/>	Clinical Andrologist
8)	Name	<b>Prof. Dr. Undraga Schagdarsurengin</b>		
	Degree	Dr. rer. nat. habil.		
	Speciality	Biology, Genetics		
	Full time/part time	Full time		
Academician		Regular Member		Clinical Andrologist
9)	Name	<b>Dr. Temujin Dansranjavin</b>		
	Degree	Dr. rer. nat.		
	Speciality	Biology		
	Full time/part time	Fulltime		
Academician		Regular Member		Clinical Andrologist
10)	Name	<b>Dr. Arne Hauptmann</b>		
	Degree	Dr. med.		
	Speciality	Urologist		
	Full time/part time	Full time		
Academician		Regular Member		Clinical Andrologist
11)	Name	<b>Dr. Jens Rosellen</b>		
	Degree	Dr. med.		
	Speciality	Urologist, FESSM		
	Full time/part time	Full time		

<b>MD/Biologists/</b>				
1)	Name	<b>Dr. Christine Pleuger</b>		
	Degree	Dr. rer. nat.		
	Speciality	Molecular Biology		
	Full time/part time	Fulltime		
Academician		Regular Member	X	Clinical Andrologist
2)	Name	<b>Dr. Aileen Harrer</b>		
	Degree	Dr. rer. Nat.		
	Speciality	Molecular Biology/Anatomy		
	Full time/part time	Fulltime		
Academician		Regular Member		Clinical Andrologist
3)	Name	<b>Dingding Ai</b>		
	Degree	PhD		
	Speciality	Molecular Biolohgy		
	Full time/part time	Fulltime		
Academician		Regular Member		Clinical Andrologist
4)	Name	<b>Tiziana Grimaldini</b>		
	Degree	PhD		
	Speciality	Molecular Biology		
	Full time/part time	Fulltime		
Academician		Regular Member		Clinical Andrologist
5)	Name	<b>Hiba Hasan</b>		
	Degree			
	Speciality			
	Full time/part time	Fulltime		
Academician		Regualar Member		

<b>PhD Students and andrological trainees (ongoing)</b>	
1) Name	Sabrina Gies, Giessen, Germany (since 2015)
2) Name	Nils Næsheim, Giessen, Germany (2013-2014 and since 2015)
3) Name	Jakhongir Alidjanov, Tashkent, Uzbekistan (2013-2014)
4) Name	Ricardo Hartley, Santiago, Chile (2013-2014)
5) Name	Vivianna Menzel, Giessen, Germany (2013-2014)
6) Name	Elham Savadi Shiraz, Iran (2013-2018)
7) Name	Kai Tina Steinfeld, Giessen, Germany (2010-2014)
8) Name	Siva Velagala, India (2013-2015)
9) Name	Sarode Gaurav, India (2011-2014)
10) Name	Andreas Benelli, Genua (2014-2015)
11) Name	Kai Ni, Shanghai (2013-2016)
12) Name	Lisa Teuchert, Giessen (2014)

13) Name	Draga Asmarinah, Jakarta, Indonesia (2014)
14) Name	Julia Bender
15) Name	Christine Kleinert
16) Name	Yalong Yang (since 2017)
17) Name	Tao Lei (2015-2019)
18) Name	Britta Klein (2013-2016)
19) Name	Dana Püschl (2016-2018)
20) Name	Juliette Borderies (since 2017)
21) Name	Raouda Sgaier (2018-2023)
22) Name	Rashidul Islam (2019-2023)
23) Name	Jannis Heyer (2019-2023)
24) Name	Miriam Figura (since 2020)
25) Name	Shashika D. Kothalawala (since 2020)
26) Name	Vishnu Kumar
27) Name	Linda Kreylingl
28) Name	Hiba Hassan

**Nurses** Nurses from the Dept. of Urology are also engaged in the andrological work-up, not separated for Andrology

**Laboratory Technicians**

1) Name	S. Pinkl
2) Name	B. Schuster
3) Name	B. Fröhlich (until 2022)
4) Name	T. Bloch
5) Name	K. Wilhem
6) Name	S. Fröhlich
7) Name	E. Wahle
8) Name	Miguel Keidel (2015-2018)
9) Name	G. Hecker

**Administrative Personnel** Katharina Endres

1) Name	Eva Wewel
2) Name	Monika Conrad (retired 2021)
3) Name	Julia Wolf (2013-2017)
4) Name	M. Blazevic
5) Name	Pia Jürgens (IRTG until 2023)

#### 4. Clinical Activity

##### A. Outpatients: Consultations per year in the last 3 years

	2021	2022	2023
New patients	1310	1676	1722
Follow-up patients	778	913	822

Type of patients in the last years	2021	2022	2023
Infertility	40%	40 %	40%
Erectile dysfunction	20%	20 %	20%
Hypogonadotropic Hypogonadism	5%	5 %	3%
Klinefelter	1%	1 %	3%
Gynaecomastia	--	below 1 %	1%
Varicocele	7%	8%	8%
Cryptorchidism	4%	5%	4%
Male sex accessory gland infections	10%	1%	8%
Testicular tumours	3%	2%	4%
Disorders of gender identity	1%	below 1 %	0%
Other	10%	16 %	9%

##### B. Ultrasound (testis, penile, prostate) (Andrological Invest.)

	2021	2022	2023
Total	about 8.000	about 8.000	about 8.000
Controls	---	---	---

\* performed at the Dept. of Urology, Pediatric Urology and Andrology

##### C. Andrological surgery procedures

	2021	2022	2023
Testicular biopsies/units	102	138	144
Varicocele ligation	17	19	24
Prostate biopsies	more than 200	more than 200	more than 200
BPH	more than 130	more than 120	more than 140
Prostate cancer	45	56	59
Vasectomy	2	5	3
Vaso-vasostomy	28	38	31

**5. A. Andrology laboratory activity**

	<b>2021</b>	<b>2022</b>	<b>2023</b>
Semen analyses	1091	1113	1087
Sperm antibodies	327	376	377
Seminal markers	2481	1991	1967

**5. B. Andrology laboratory activity**

Sperm banking donors	Yes	No	X
Sperm banking cancer patients	Yes	X	No
<b>If yes:</b>			
	<b>2021</b>	<b>2022</b>	<b>2023</b>
Number of samples	120	142	133

**5. C. Histopathological evaluation of biopsies**

Yes X No

**5. D. Reproductive Hormones Assays**

Yes X No

If yes please specify type of assays and number of samples in the last year

Reproductive Hormones Assays (FSH, LH, testosterone)

**See summary**

SHBG, prolactin)

All infertility pat.: Testosterone, FSH, LH, Prolactin

All pat. with sexual dysfunction: Testosteron, f-T, Estradiol,

Prolactin

Special indications: T3, T4, TSH, inhibin, cortisol

**approx. 15.000 tests per year****5. E. Y chromosome microdeletions according to EAA/EMQN guidelines**

Yes No X

**If yes** number of tests in the past yearIn collaboration  
approx. 120

Participation to the EAA quality control scheme?	Yes		No	X
<b>If no</b> , specify if available in another lab of the same hospital/ <b>outside Giessen hospital</b>	Yes		No	X
University Genetic Institute				
Blood karyotyping	Yes	X	No	
<b>If no</b> , specify if available in another lab of the same hospital	Yes		No	

Other genetic tests (please specify)

Y chromosome deletions (AZF)

FISH sperm

not performed

Pre-implantation genetic diagnosis

not performed

Amniotic fluid karyotyping

not performed

*Y chromosome deletions (AZF); CFTR mutations; azoospermia WES panel (cooperation Prof. F. Tüttelmann, Münster)*

**6. Collaborations with other Clinical Units of the University/Hospital**

IVF Unit	Yes	X	No	
<b>If yes</b> please specify: Children, Endocrinology, IVF, Urology, Genetics, Pathology				
Urology Clinic (we are the Urology Clinic)	Yes	X	No	
Endocrine Clinic	Yes	X	No	
Genetics Lab/Unit	Yes	X	No	
Paediatric Unit	Yes	X	No	
Central Hospital Laboratory	Yes	X	No	
Private Centres	Yes	X	No	

**If yes** please specify:

Private Centres for IVF: Wetzlar, Marburg, Wiesbaden, Offenbach, Darmstadt, Frankfurt, Wuerzburg, Kassel, Göttingen (and beyond)

**7. Clinical teaching activity**

Duration of training (years):	2	Number
A: Trainees in the last five years (Urology)		12
B: Trainees who passed EAA-ESAU\exam for Clinical Andrologist in the last 5 yrs.		1
C: Trainees working in the centre preparing to pass the EAA-ESAU examination		1
D: PhD Students		20
E: Medical Students		12
F: Other students (MSc): not applicable		---
<b>8. Formal Andrology teaching program</b>		Yes X No
<b>If yes</b> : specify duration (years/months):	Years	Months 18

	Hours of formal teaching per year	Professional training (weeks/months)
Medical Students	Urological Clinic: 2 hours daily (not Friday) Special consultation hours(general andrology, andrology surgery, hypogonadism, sexual dysfunction, Pyronie's disease, operative theatre, ejaculate lab, cryobanking, testicular histology, sonocourses, IVF center, endocrinology	Special program in English, integrated into the section – impaired fertility in men and animals- GGL – Giessen Graduate School of the University (theoretical and scientific background of infertility (about 4-6 hours per week)
PhD Students	same	same
Post Graduate students	same	same
Trainees	same	same

## 9. Research Activity (maximum 1 page)

### **Main research topics:**

- Human spermatogenic disorders
- Role of sulfated steroids in reproduction
- Immune- / Infection-related male infertility
- Testicular cancer immune interaction
- Viral epididymitis
- Physiology of the epididymis
- Prostatitis and UTI

## 10. Research Funding

**2013-2022**

**10.425.600 € (DFG + Monash University, Melbourne)**

German Research Foundation (Deutsche Forschungsgemeinschaft-DFG)

### **Anatomy:**

*Recipient Dr. Sudhanshu Bhushan*

- DFG project grant (2023-2026). The Cellular Landscape Underlying the Heterogeneity of Macrophages in Adult Testes During Normal and Diseased Conditions. AZ: BH 94/4-1. 487.268 €.
- DFG project grant (2019-2022). Origin of testicular macrophages and implication of testicular local microenvironment in metabolically shaping the immunosuppressive phenotype. AZ: BH 93/1-4. 537.400 €.

*Recipient Prof. Andreas Meinhardt*

- DFG-Congress support „Workshop Molecular Andrology“ (Meinhardt) 24 - 26.09.2019, JLU Giessen, Medizinisches Lehrzentrum, Gießen
- Total volume including central funds € 24.400
- DFG Project Grant (ME1323/13-1): The role of iron in the course of bacterial infection of the testis. CI: Meinhardt, Meyron-Holtz (Haifa, Israel)
- Total volume € 540.640
- Own share € 365.220
- International Research Training Group JLU Giessen- Monash University “Molecular mechanism of male reproductive disorders”, contains 11 projects and central funds, Function: *German spokesperson*
- 2<sup>nd</sup> funding period: 2017 - 2022
  - Total German volume € 4.154.000
  - Two own projects, central funds € 810.000

*Recipient Dr. Monika Fijak*

- DFG project grant “Role of galectin 3 in inflammatory response and fibrotic remodelling during chronic epididymo-orchitis”, FI 1801/5-1, 2023 – 2026, 422.200€
- IRTG "Molecular Pathogenesis of Male Reproductive Disorders" (GRK 1871/1), DFG, Project P7 "The role of activins and CCL2/CCR2 in the formation of CD4+CD8+ T cells and fibrotic responses during chronic testicular inflammation in mice (Fijak/ Bhushan/ Hedger/ Loveland), 2017 – 2022
- Recipients: Oliver D, Renigunta V, Bhushan S, Meinhardt A
- Von Behring-Röntgen-Stiftung, Justus-Liebig-Universität Gießen and Philipps-Universität Marburg (2018-2022).Voltage sensitive lipid phosphatase (VSP) in mammalian spermatogenesis. 140.000 €..

*Recipient Dr. Christiane Pleuger*

- Nachwuchsförderung von-Behrung-Roentgen-Stiftung "Funktion gewebsständiger CX3CR1+ Makrophagen in der Immunregulation des Nebenhodens" Förder-Nr- 69-0029, 195.000 €, 01-2022-12-2024
- DGA-Forschungsstipendium 10.000 € (2024)

## Urology, Andrology and Molecular Andrology

- International Research Training Group Giessen-Melbourne “Molecular Pathogenesis of Male Reproductive Disorders”, Project P2: Human testis cancer control by local factors; interrogation of Hedgehog and activin signalling pathways and immune cells (M. Bergmann, H.C. Schuppe, F. Wagenlehner (JLU Giessen), K. Loveland (Monash-Univ. Melbourne) (2017-2022)
- DFG - International Research Training Group Giessen-Melbourne “Molecular Pathogenesis of Male Reproductive Disorders”, Project P4: Proteomics in seminal plasma and testicular interstitial fluid as predictor of successful sperm retrieval in infertile azoospermic men (T. Diemer, A. Pilatz, D. Fietz) (2017-2022)
- DFG - International Research Training Group Giessen-Melbourne “Molecular Pathogenesis of Male Reproductive Disorders”, Project P5: Systemic and local inflammatory gene regulation and redox-signalling in chronic prostatitis - studies in patients' blood and ejaculates towards individualized disease profiling (F. Wagenlehner, U. Schagdarsurengin) (2017-2022)
- DFG - International Research Training Group Giessen-Melbourne “Molecular Pathogenesis of Male Reproductive Disorders”, Project P11: Impacts of epigenetic interactions between TET1 and PRC2 in spermatogenesis and fertility (K. Steger, U. Schagdarsurengin ) (2017-2022)
- DFG - International Research Training Group Giessen-Melbourne “Molecular Pathogenesis of Male Reproductive Disorders”, Project P12: Role of oxytocin in the contractility of the male reproductive tract: implications for the treatment of benign prostatitic hyperplasia (F. Wagenlehner, T. Linn, R. Middendorff) (2017-2022)
- Forschungsförderung der Deutschen Forschungsgemeinschaft (DFG PL 1247/1-1) für Dr. A. Pilatz für Projekt „Virale Orchitis – Fakt oder Fiktion? (2019-2021)
- Joint-Project: Czech (GACR) und DFG (Deutsche Forschungsgemeinschaft Bonn) Forschungsförderung (STE 892/20-1): Der Spermien LINC Komplex: Der Link zwischen Chromatin Integrität, Spermienmotilität und männlicher Fertilität. (Prof. K. Steger, Koop. Dr. Korskova, Prag, CZ)(2020-2023) (622804642 JLU)
- Forschungsförderung der Deutschen Forschungsgemeinschaft (DFG STE 892/19-1) für Prof. K. Steger (Mitantragsteller Prof. H. Schorle) für Projekt: Erzeugung und Analyse von Protamin-1 und Protamin-2 Einzel- und Doppel-defizienten Mäusen durch CRISPR/Cas9 vermitteltes Gen-Editing. Untersuchung von Anatomie, Morphologie, Fertilität, DNA-Hypercondensation, Histonbeladung, Histonmodifikation und epigenetische Vererbung. (2019-2022)
- Forschungsförderung der Deutschen Forschungsgemeinschaft Bonn für BARICADE Forschungsgruppe „Bakterielle renale Infektionen und deren Abwehr“ (DFG WA 3142/7-1) Prof. Dr. F. Wagenlehner, Teilprojekt SP1: „Bewertung von pharmakokinetischen und pharmakodynamischen Parametern der angeborenen Immunität bei Pyelonephritis“ (Mitantragstellerin: Dr. Olga Shevchuk) (12/2022-12/2026) (62280763 JLU)
- Forschungsförderung der Deutschen Forschungsgemeinschaft Bonn für BARICADE Forschungsgruppe „Bakterielle renale Infektionen und deren Abwehr“ (DFG WA 3142/6-1) Prof. Dr. F. Wagenlehner, Teilprojekt Z „Koordinationsfonds“ (12/2022-12/2026) (62280764 JLU)

**Sponsored Clinical Studies (Andrology/MAGI-related): Urology**

- **MARClE** - "Medical Chart Review über die klinischen Merkmale von Patienten mit invasiver ExPEC-Erkrankung (extraintestinal pathogene Escherichia coli)", Ingress-Health HWM GmbH, Wismar (Prof. Dr. F. Wagenlehner) (2020-2021)
- **Klosterfrau Studie MCM I** In-Vitro-/Labor-Prüfungen bzgl. "Determination of inhibiting properties of D-Mannose, D- Glucose and D-Fructose on the binding of uropathogenic strains to bladder epithelial cells". Assessment oft he urinary excretion of a D-mannose food supplement in healthy women with a subsequent in vitro evaluation of the effect of the obtained urine samples on adhesive properties of
- UPECs. A prospetice, single center, double-blind, randomized, placebo-controlled study (Phase 1). (2021-2023)
- **EAGLE II:** A Phase III, Randomized, Multicenter, Parallel-Group, Double-Blind, Double-Dummy Study in Adolescent and Adult Female Participants Comparing the Efficacy and Safety of Gepotidacin to Nitrofurantoin in the Treatment of Uncomplicated Urinary Tract Infection. GSK Pharma GmbH, London, München (Prof. Dr. F. Wagenlehner) (2022-2023)
- **E.mbrace:** Randomized, Double-Blind, Placebo-controlled, Multicenter Phase 3 Study to Assess the Efficacy, Safety And Immunogenicity of Vaccination With ExPEC9V in the Prevention of Invasive Extraintestinal Pathogenic Escherichia coli Disease in Adults Aged 60 Years And Older with a History of Urinary Tract Infection in the Past 2 Years. Janssen-Cilag GmbH, Neuss (Prof. Dr. A. Pilatz) (2023-2025)

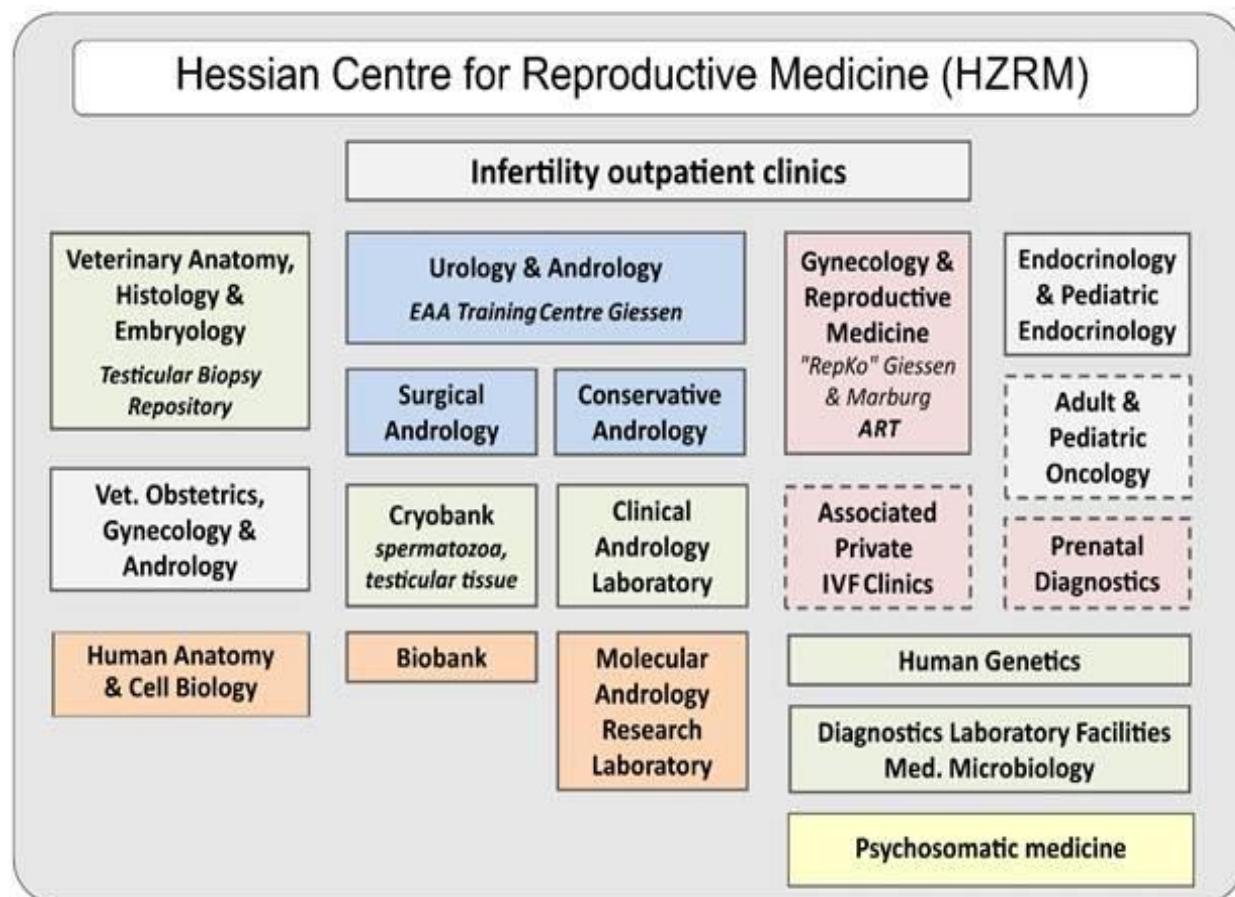
## ORGANIZATIONAL CHARTS

<b>EAA Andrology Centre Giessen</b>  <b>Priv.-Doz. Dr. Thorsten Diemer</b> <b>Prof. Dr. Andreas Meinhardt</b>  <u><b>Staff member I:</b></u> <b>(Institute of Anatomy and Cell Biology)</b> Dingding Ai Dr. S. Bhushan Dr. M. Fijak S. Fröhlich Tiziana Grimaldini Dr. Aileen Harrer Hiba Hassan Dr. C. Pleuger Linda Kreylingl Vishnu Kumar E. Wahle E. Wewel  <u><b>Staff member II:</b></u> <b>(Dept. of Urology Pediatric Urology and Andrology)</b> Prof. Dr. F. Wagenlehner (Chair of Urology) Prof. Dr. HC Schuppe PD Dr. B. Altinkilic Dr. A. Hauptmann Prof. Dr. A. Pilatz Dr. J. Rosellen Dr. G. Lüdecke Dr. C. Haas Dr. C. Appunn Dr. I. Kilb-Köklü A. Köklü B. Ternes T. Weber L. Reiser  <u><b>Staff member III:</b></u> <b>(Section Molecular Andrology)</b> Prof. Dr. U. Schagdarsurengin (Head) Prof. Dr. K. Steger (retired) Dr. T. Dansranjavin  <u><b>Staff member IV:</b></u> <b>(Institute for Veterinary Anatomy, Histology and Embryology)</b> Prof. Dr. D. Fietz (Head) A. Dax	 <b>Unit name</b>   <b>Head</b>   <b>Staff members</b>
<b>Outpatient Clinics/Gynecology/IVF-Center</b> Embryology, Ovarian stimulation , Ultrasound, Oocyte retrieval ,Embryo transfer, IVF/ICSI, IUI	 <b>Clinical services</b>
Diagnosis of infertility Counseling of infertile couple Cryopreservation of sperm Ethics in Andrology	 <b>Contribution to EAA training</b>

## CENTRE PHOTOS



## Organizational Chart: HZRM



## FULL LIST OF PUBLICATIONS of staff members from the last 3 years

### Publications 2023

Pawlicka B., Duliban M., Zieba M., Bochenek M., Ziebe K., Adham I., Studencka-Turski M., Meinhardt A., Grzmil P. (2023). Increased DNA strand breaks in spermatozoa of Pxt1 knockout mice. REPROD FERTIL, 35:589-600.(2023)

Wagenlehner F, Schultz-Lampel D. Somatoform Störungen: Erkrankungen in der Urologie [Somatoform disorders: urological diseases]. Urologie Jun;62(6):569-570. (2023)

Wagenlehner FME. Harnwegsinfektionen einschließlich Pyelonephritis [Urinary tract infections including pyelonephritis]. Med Klin Intensivmed Notfmed 118(6):464-469 (2023)

Magistro G, Wagenlehner FME, Pilatz A. Chronische Prostatitis/chronisches Beckenschmerzsyndrom [Chronic prostatitis/chronic pelvic pain syndrome]. Urologie 62(6):590-596 (2023)

Pilatz A, Alidjanov J, Bonkat G, Wagenlehner F. Prostatabiopsie -Infektionsprophylaxe sowie Vorbereitung des Patienten [Prostate biopsy-infection prophylaxis and patient preparation]. Urologie 62(5):459-463 (2023)

Bilsen MP, Jongeneel RMH, Schneeberger C, Platteel TN, van Nieuwkoop C, Mody L, Caterino JM, Geerlings SE, Köves B, Wagenlehner F, Conroy SP, Visser LG, Lambregts MMC: Definitions of Urinary Tract Infection in Current Research: A Systematic Review. Open Forum Infect Dis. 27;10(7):ofad332 (2023)

Schneider L, Dansranjav T, Neumann E, Yan H, Pilatz A, Schuppe HC, Wagenlehner F, Schagdarsurengin: Post-prostatic-massage urine exosomes of men with chronic prostatitis/chronic pelvic pain syndrome carry prostate-cancer-typical microRNAs and activate proto-oncogenes. U. Mol Oncol Mar;17(3):445-468. (2023)

Medina-Polo J, Arrébola-Pajares A, Corrales-Riveros JG, Alidjanov JF, Lorenzo-Gómez MF, Tapia AH, Martínez-Berganza ML, Ospina-Galeano IA, Padilla-Fernández B, Pilatz A, Naber KG, Wagenlehner FM: Validation of the Spanish Acute Cystitis Symptoms Score (ACSS) in native Spanish-speaking women of Europe and Latin America. Neurol Urodyn Jan;42(1):263-281 (2023)

Cai T, Alidjanov J, Palagin I, Medina-Polo J, Nickel JC, Wagenlehner FME: Chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS): look to the future. Prostate Cancer Prostatic Dis Jan 11. doi: 10.1038/s41391-023-00645-7 (2023)

Bilsen MP, Jongeneel RMH, Schneeberger C, Platteel TN, van Nieuwkoop C, Mody, L, Caterino JM, Geerlings SE, Köves B, Wagenlehner F, Conroy SP, Visser LG, Lambregts MMC: Definitions of Urinary Tract Infection in Current Research: A Systematic Review. Open Forum Infect Dis Jun 27;10(7) (2023)

Wagenlehner FME. Harnwegsinfektionen einschließlich Pyelonephritis [Urinary tract infections including pyelonephritis]. Med Klin Intensivmed Notfmed 118(6):464-469 (2023)

Magistro G, Wagenlehner FME, Pilatz A. Chronische Prostatitis/chronisches Beckenschmerzsyndrom [Chronic prostatitis/chronic pelvic pain syndrome]. Urologie 62(6):590-596 (2023)

Pilatz A, Alidjanov J, Bonkat G, Wagenlehner F. Prostatabiopsie –Infektionsprophylaxe sowie Vorbereitung des Patienten [Prostate biopsy-infection prophylaxis and patient preparation]. Urologie 62(5):459-463 (2023)

Goldspink A, Schmitz J, Babyak O, Brauns N, Milleck J, Breloh AM, Fleig SV, Jobin K, Schwarz L, Haller H, Wagenlehner F, Bräsen JH, Kurts C, von Vietinghoff S: Kidney medullary sodium chloride concentrations induce neutrophil and monocyte extracellular DNA traps that defend against pyelonephritis in vivo. Kidney Int 104(2):279-292 (2023)

Wagenlehner FME: Neue Antibiotika in der Behandlung von Harnwegsinfektionen [New antibiotics for the treatment of urinary tract infections]. Urologie 62(7):705-710 (2023)

Cai T, Anceschi U, Prata F, Collini L, Brugnolli A, Migno S, Rizzo M, Liguori G, Gallelli L, Wagenlehner FME, Johansen TEB, Montanari L, Palmieri A, Tascini C: Artificial Intelligence Can Guide Antibiotic Choice in Recurrent UTIs and Become an Important Aid to Improve Antimicrobial Stewardship. Antibiotics (Basel) Feb 11;12(2):375 (2023)

Bausch K, Mantica G, Smith EJ, Bartoletti R, Bruyère F, Cai T, Geerlings S, Kranz J, Köves B, Pilatz A, Schubert S, Veeratterapillay R, Wagenlehner F, Gupta N, Bonkat G: Genitourinary Tuberculosis: A Brief Manual for Urologists on Diagnosis and Treatment from the European Association of Urology Urological Infections Panel. Eur Urol Focus 2:S2405-4569 (2023)

Stangl FP, Schneidewind L, Kiss B, Kranz J, Wagenlehner FM, Johansen TEB, Köves B, Medina-Polo J, Tapia AM, Tandogdu Z: Non-Antibiotic Prophylaxis for Recurrent UTIs in Neurogenic Lower Urinary Tract Dysfunction (NAPRUN): Study Protocol for a Prospective, Longitudinal Multi-Arm Observational Study. Methods Protoc 24;6(3):52 (2023)

Von Vietinghoff S, Shevchuk O, Dobrindt U, Engel DR, Jorch SK, Kurts C, Miethke T, Wagenlehner F: The global burden of antimicrobial resistance - urinary tract infections. Nephrol Dial Transplant 27:gfad233 (2023)

Stangl FP, Schneidewind L, Wagenlehner FM, Schultz-Lampel D, Baeßler K, Naumann G, Schönburg S, Anheuser P, Winkelhog-Gran S, Saar M, Hüsch T, Kranz J: Do or Don't: Results of a Multinational Survey on Antibiotic Prophylaxis in Urodynamics. Antibiotics (Basel) 22;12(7):1219 (2023)

Butler DSC, Wagenlehner F, Höller M, Abramov-Sommariva D, Steindl H, Naber KG: Phytotherapy (BNO 1045) of Acute Lower Uncomplicated Urinary Tract Infection in Women Normalizes Local Host Responses. Urol Int. 107(8):778-784 (2023)

Practice Patterns in Fournier's Gangrene in Europe and Implications for a Prospective Registry Study.

Schneidewind L, Kiss B, Stangl FP, Tandogdu Z, Wagenlehner FME, Johansen TEB, Köves B, Medina-Polo J, Tapia AM, Kranz J. Antibiotics (Basel) 18;12(2):197 (2023)

Naber KG, Alidjanov JF, Blicharski T, Cerska M, Gadzinski W, Kawecki J, Krajewski W, Miotla P, Napora P, Paszkowski M, Poletajew S, Sieczkowski M, Zaremba M, Pilatz A, Wagenlehner FME: Polish version of the Acute Cystitis Symptom Score for patients with acute uncomplicated cystitis. Cent European J Urol. 76(2):144-154 (2023)

Cai T, Verze P, Arcaniolo D, Pandolfo SD, Smarrazzo F, Manfredi C, Tascini C, Caciagli P, Lanzafame M, De Sio M, Wagenlehner F, Johansen TEB, Palmieri A: Antibiotic Resistance Patterns Among Uropathogens in Female Outpatients Affected by Uncomplicated Cystitis: Focus on Fosfomycin Trometamol. Int J Antimicrob Agents 62(5):106974 (2023)

Naber KG, Wagenlehner F, Kresken M, Cheng WY, Catillon M, Duh MS, Yu L, Khanal A, Mulgirigama A, Joshi AV, Ju S, Mitrani-Gold FS: Escherichia coli resistance, treatment patterns and clinical outcomes among females with uUTI in Germany: a retrospective physician-based chart review study. *Sci Rep.* 26;13(1):12077. (2023)

Wagenlehner F, Kresken M, Wohlfarth E, Bahrs C, Grabein B, Strohmaier WL, Naber KG: Therapy of cystitis with nitroxoline-NitroxWin : Prospective, multicenter, non-interventional study and microbiological resistance surveillance]. *Urologie* 62(11):1186-1192. (2023)

Radzhabov A, Zamuddinov M, Alidjanov JF, Pilatz A, Wagenlehner FM, Naber KG: Linguistic and Clinical Validation of the Tajik Acute Cystitis Symptom Score for Diagnosis and Patient-Reported Outcome in Acute Uncomplicated Cystitis. *59(9):1549.* (2023)

Arda E, Alidjanov J, Ates S, Çek M, Piatz A, Wagenlehner FM, Naber KG: Linguistic and clinical validation of the Turkish version of Acute Cystitis Symptom Score for the diagnosis and patient-reported outcome in acute uncomplicated cystitis. *Investig Clin Urol* 64(3):279-288. (2023)

Shah R, Agarwal A, Kavoussi P, Rambhatla A, Saleh R, Cannarella R, Harraz AM, Boitrelle F, Kuroda S, Hamoda TAA, Zini A, Ko E, Calik G, Toprak T, Kandil H, Gül M, Bakırçioğlu ME, Parekh N, Russo GI, Tadros N, Kadioglu A, Arafa M, Chung E, Rajmil O, Dimitriadis F, Malhotra V, Salvio G, Henkel R, Diemer T, Le TV, Sogutdelen E, Vij S, Alarbid A, Gudeloglu A, Tsujimura A, Calogero AE, El Meliegy A: Consensus and Diversity in the Management of Varicocele for Male Infertility: Results of a Global Practice Survey and Comparison with Guidelines and Recommendations. See abstract for full author list → *World J Mens Health* 41(1):164-197. (2023)

O'Donnell L, Dagley LF, Curley M, Darbey A, O'Shaughnessy PJ, Diemer T, Pilatz A, Fietz D, Stanton PG, Smith LB, Rebouret D: Sertoli cell-enriched proteins in mouse and human testicular interstitial fluid. *PLoS One* 1;18(9):e0290846. doi (2023)

Dittmar F, Rosellen J, Reiser L, Fritzenwanker M, Hauptmann A, Diemer T, Schuppe HC, Wagenlehner F, Pilatz A: Comprehensive evaluation of hematospermia in patients with acute epididymitis compared to patients with isolated hematospermia. *Andrology* 3. doi: 10.1111/andr.13489. Online ahead of print. PMID: 37401133 (2023)

Emich J, Gaikwad AS, Stallmeyer B, Fietz D, Schuppe HC, Oud MS, Kliesch S, Gromoll J, Friedrich C, Tüttelmann F: Functional assessment of DMRT1 variants and their pathogenicity for isolated male infertility. *Fertil Steril* 119(2):219-228. (2023)

Pilatz A, Arneth B, Kaiser R, Heger E, Pirkl M, Böttcher S, Fritzenwanker M, Renz H, Mankertz A, Schuppe HC, Wagenlehner F: Acute orchitis deciphered: Coxsackievirus B strains are the main etiology and their presence in semen is associated with acute inflammation and risk of persistent oligozoospermia. *J Med Virol* 95(7):e28970 (2023)

Hüneke H, Langeheine M, Rode K, Jung K, Pilatz A, Fietz D, Kliesch S, Brehm R. Effects of a Sertoli cell-specific knockout of Connexin43 on maturation and proliferation of postnatal Sertoli cells. *Differentiation*. 2023 Nov-Dec;134:31-51. doi: 10.1016/j.diff.2023.09.002

Dicke AK, Pilatz A, Wyrwoll MJ, Punab M, Ruckert C, Nagirnaja L, Aston KI, Conrad DF, Di Persio S, Neuhaus N, Fietz D, Laan M, Stallmeyer B, Tüttelmann F (2023) DDX3Y is likely the key spermatogenic factor in the AZFa region that contributes to human non-obstructive azoospermia. *Commun Biol.* 6(1):350. doi: 10.1038/s42003-023-04714-4

Westerich KJ, Reinecke S, Emich J, Wyrwoll MJ, Stallmeyer B, Meyer M, Oud MS, Fietz D, Pilatz A, Kliesch S, Reichman-Fried M, Tarbashevich K, Limon T, Stehling M, Friedrich C, Tüttelmann F, Raz E (2023) Linking human Dead end 1 (DND1) variants to male infertility employing zebrafish embryos. *Hum Reprod.* 38(4):655-670. doi: 10.1093/humrep/dead031. PMID: 36807972

### **Publications 2022**

Bai T., Chen Y., Beck S., Stanelle-Bertram S., Mounogou N.K., Chen T., Dong J., Schneider B., Jia T., Yang J., Wang L., Meinhardt A., Zapf A., Kreienbrock L., Wang D., Shu Y., Gabriel G. (2022) H7N9 avian influenza virus infection in men is associated with testosterone depletion. *NAT COMMUN*, 13(1): 6936.

Biniwale S., Wijayarathna R., Pleuger C., Bhushan S., Loveland K.L., Meinhardt A., Hedger M.P. (2022) Regulation of macrophage number and gene transcript levels by activin A and its binding protein, follistatin, in the testes of adult mice. *J REPROD IMMUNOL*, 151: 103618.

Björndahl L., Barratt C.L.R., Mortimer D., Agarwal A., Aitken R.J., Alvarez J.G., Aneck-Hahn N., Arver S., Baldi E., Bassas L., Boitrelle F., Bornman R., Carrell D.T., Castilla J.A., Cerezo Parra G., Check J.H., Cuasnicu P.S., Darney S.P., de Jager C., De Jonge C.J., Drevet J.R., Drobnis E.Z., Du Plessis S.S., Eisenberg M.L., Esteves S.C., Evgeni E.A., Ferlin A., Garrido N., Giwercman A., Goovaerts I.G.F., Haugen T.B., Henkel R., Henningsohn L., Hofmann M.C., Hotaling J.M., Jedrzejczak P., Jouannet P., Jørgensen N., Kirkman Brown J.C., Krausz C., Kurpisz M., Kvist U., Lamb D.J., Levine H., Loveland K.L., McLachlan R.I., Mahran A., Maree L., Martins da Silva S., Mbizvo M.T., Meinhardt A., Menkveld R., Mortimer S.T., Moskovtsev S., Muller C.H., Munuce M.J., Muratori M., Niederberger C., O'Flaherty C., Oliva R., Ombelet W., Pacey A.A., Palladino M.A., Ramasamy R., Ramos L., Rives N., Roldan E.R., Rothmann S., Sakkas D., Salonia A., Sánchez-Pozo M.C., Sapiro R., Schlatt S., Schlegel P.N., Schuppe H.C., Shah R., Skakkebæk N.E., Teerds K., Toskin I., Tournaye H., Turek P.J., van der Horst G., Vazquez-Levin M., Wang C., Wetzel A., Zeginiadou T., Zini A. (2022) Standards in semen examination: publishing reproducible and reliable data based on high-quality methodology. *HUM REPROD*, 37(11): 2497.

Hasan H., Bhushan S., Fijak M., Meinhardt A. (2022) Mechanism of Inflammatory Associated Impairment of Sperm Function, Spermatogenesis and Steroidogenesis. *FRONT ENDOCRINOL*, 13: 897029.

Keshavarz M., Faraj Tabrizi S., Ruppert A.L., Pfeil U., Schreiber Y., Klein J., Brandenburger I., Lochnit G., Bhushan S., Perniss A., Deckmann K., Hartmann P., Meiners M., Mermer P., Rafiq A., Winterberg S., Papadakis T., Thomas D., Angioni C., Oberwinkler J., Chubanov V., Guermann T., Gärtner U., Offermanns S., Schütz B., Kummer W. (2022) Cysteinyl leukotrienes and acetylcholine are biliary tuft cell cotransmitters. *SCI IMMUNOL*, 7(69): eabf6734.

Mahmoud W., Perniss A., Poharkar K., Soultanova A., Pfeil U., Hoek A., Bhushan S., Hain T., Gärtner U., Kummer W. (2022) CXCL13 is expressed in a subpopulation of neuroendocrine cells in the murine trachea and lung. *CELL TISSUE RES*, 390(1): 35.

Meinhardt A, Dejucq-Rainsford N, Bhushan S. (2022) Testicular macrophages: development and function in health and disease. TRENDS IMMUNOL, 43(1): 51.

Peng W, Kepsch A, Kracht T.O, Hasan H, Wijayarathna R, Wahle E, Pleuger C, Bhushan S, Günther S, Kauerhof A.C., Planinić A, Fietz D, Schuppe H.C., Wygrecka M, Loveland K.L., Ježek D, Meinhardt A, Hedger M.P, Fijak M. (2022) Activin A and CCR2 regulate macrophage function in testicular fibrosis caused by experimental autoimmune orchitis. CELL MOL LIFE SCI, 79(12): 602.

Pleuger C, Ai D, Hoppe M.L, Winter L.T, Bohnert D, Karl D, Guenther S, Epelman S, Kantores C, Fijak M, Ravens S, Middendorff R, Mayer J.U, Loveland K.L, Hedger M, Bhushan S, Meinhardt A. (2022) The regional distribution of resident immune cells shapes distinct immunological environments along the murine epididymis. ELIFE, 11: e82193.

Wijayarathna R, Genovese R, Meinhardt A, Loveland K.L, Groome N.P, Hinton B.T, Hedger M.P. (2022) Examination of testicular lumicrine regulation of activins and immunoregulatory genes in the epididymal caput. ANDROLOGY-US, 10(1): 190.

Yang Y., Hou J., Liu J., Bhushan S, Wu G. (2022) The origins of resident macrophages in mammary gland influence the tumorigenesis of breast cancer. INT IMMUNOPHARMACOL, 110: 109047.

Zare M, Vehreschild MJGT, Wagenlehner F: Management of uncomplicated recurrent urinary tract infections. BJU Int. 129(6):668-678 (2022)

Wagenlehner FME, Dittmar F: Re: Surviving Sepsis Campaign: International Guidelines for Management of Sepsis and Septic Shock 2021. Eur Urol 81(2):213 (2022)

Bruyère F, Piraux A, Bohbot JM, Begue C, Vallée M, Alidjanov J, Pilatz A, Naber KG, Wagenlehner FME: Linguistic validation and cognitive assessment of the French version of the Acute Cystitis Symptom Score questionnaire. Prog Urol 32(2):73-76 (2022)

Magistro G, Stief CG, Wagenlehner FME, Pilatz A: [Urinary diversion for acute epididymitis : Transurethral or suprapubic catheter?]. Urologie; 61(6):609-613 (2022)

Cai T, Gallelli L, Cione E, Verze P, Palmieri A, Mirone V, Bonkat G, Wagenlehner FM, Bjerklund Johansen TE: The efficacy and tolerability of pollen extract in combination with hyaluronic acid and vitamins in the management of patients affected by chronic prostatitis/chronic pelvic pain syndrome: a 26 weeks, randomized, controlled, single-blinded, phase III study. Minerva Urol Nephrol. 2022 Dec;74(6):780-788.

Choi JB, Cho KJ, Han KH, Alidjanov JF, Pilatz AME, Wagenlehner FME, Naber KG, Choe HS, Lee SJ: Translation and validation of the Korean version of acute cystitis symptom score. Investig Clin Urol 63(2):221-227 (2022)

Cai T, Tamanini I, Collini L, Brugnolli A, Migno S, Mereu L, Tateo S, Pilatz A, Rizzo M, Liguori G, Bonkat G, Wagenlehner FME, Bjerklund Johansen TE: Management of Recurrent Cystitis in Women: When Prompt Identification of Risk Factors Might Make a Difference. Eur Urol Focus 5:S2405-4569 (2022)

Kranz J, Lackner J, Künzel U, Wagenlehner F, Schmidt S: Phytotherapy in Adults With Recurrent Uncomplicated Cystitis-a Systematic Review. *Dtsch Arztebl Int* 20;119(20):353-360 (2022)

Wagenlehner F, Nicolle L, Bartoletti R, Gales AC, Grigoryan L, Huang H, Hooton T, Lopardo G, Naber K, Poojary A, Stapleton A, Talan DA, Saucedo JT, Wilcox MH, Yamamoto S, Yang SS, Lee SJ: A global perspective on improving patient care in uncomplicated urinary tract infection: expert consensus and practical guidance. *J Glob Antimicrob Resist* 28:18-29 (2022)

Espey BT, Kielwein K, van der Ven H, Steger K, Allam JP, Paradowska-Dogan A, van der Ven K: Effects of Pulsed-Wave Photobiomodulation Therapy on Human Spermatozoa. *Lasers Surg Med* 54(4):540-553 (2022)

Naber KG, Tirán-Saucedo J, Wagenlehner FME; RECAP group: Psychosocial burden of recurrent uncomplicated urinary tract infections. *GMS Infect Dis* 24;10: Doc01. eCollection (2022)

Kaußner Y, Röver C, Heinz J, Hummers E, Debray TPA, Hay AD, Heytens S, Vik I, Little P, Moore M, Stuart B, Wagenlehner F, Kronenberg A, Ferry S, Monsen T, Lindbæk M, Friede T, Gágyor I: Reducing antibiotic use in uncomplicated urinary tract infections in adult women: a systematic review and individual participant data meta-analysis. *Clin Microbiol Infect* 1: S1198-743X(22)00330-5 (2022)

Wagenlehner F, Lorenz H, Ewald O, Gerke P. Antibiotics (Basel): Why d-Mannose May Be as Efficient as Antibiotics in the Treatment of Acute Uncomplicated Lower Urinary Tract Infections-Preliminary Considerations and ConclusioPDns from a Non-Interventional Study 25;11(3):314 (2022)

Kranz J, Wiesinger CG, Nagler J, Pfuner J, Steffens J, Hüsch T, Wagenlehner FME, Schneidewind L: Comparative Analysis of Guideline Adherence between Germany and Austria by Using the Example of Uncomplicated Urinary Tract Infections. *Urol Int* 7:1-7 (2022)

Fritzenwanker M, Grabitz MO, Arneth B, Renz H, Imirzalioglu C, Chakraborty T, Wagenlehner F: Comparison of Urine Flow Cytometry on the UF-1000i System and Urine Culture of Urine Samples from Urological Patients. *Urol Int* 106(8):858-868 (2022)

Kresken M, Pfeifer Y, Wagenlehner F, Werner G, Wohlfarth E: Resistance to Mecillinam and Nine Other Antibiotics for Oral Use in *Escherichia coli* Isolated from Urine Specimens of Primary Care Patients in Germany, 2019/20. *Therapy OBOSG'ROTPESFI Antibiotics (Basel)* 31;11(6):751 (2022)

Rosellen J, Wagenlehner F: Tebipenem pivoxil : Oral carbapenem for treatment of complicated urinary tract infections. *Urologie* 61(7):775-776 (2022)

Stapleton AE, Wagenlehner FME, Mulgirigama A, Twynholm M: Erratum for Stapleton et al., "Escherichia coli Resistance to Fluoroquinolones in Community-Acquired Uncomplicated Urinary Tract Infection in Women: a Systematic Review". *Antimicrob Agents Chemother* 18;66(1):e0220921 (2022)

Schneidewind L, Stangl FP, Dräger DL, Wagenlehner FME, Hakenberg OW, Kranz J: What is the proportion of infectiology in the specialization urology? : A pilot study to underline the significance of Antibiotic Stewardship in urology. *Urologie* 13. doi: 10.1007/s00120-022-01898-1. Online ahead of print (2022)

Rosellen J, Diemer T, Hauptmann A, Wagenlehner F: Testosterone treatment. Urologie 61(11):1260-1275 (2022)

Schiereck T, Yeldan S, Kranz J, Schneidewind L, Wagenlehner F, Wieters I, Vehreschild MJGT, Otto T, Barski D. Urinary bladder microbiome analysis and probiotic treatment options for women with recurrent urinary tract infections. Urologe A. 2022 Jan;61(1):41-51 (2022)

Klußmann D, Wagenlehner F: What to do about recurrent urinary tract infections. Dtsch Med Wochenschr Sep;147(17):1140-1145 (2022)

Wagenlehner FME, Dittmar F: Re: Global Burden of Bacterial Antimicrobial Resistance in 2019: A Systematic Analysis. Eur Urol Dec;82(6):658. doi: 10.1016 (2022)

Prakash PS, Kruse A, Vogel C, Schagdarsurengin U, Wagenlehner F: Targeting Host Tyrosine Kinase Receptor EPHA2 Signaling Affects Uropathogen Infection in Human Bladder Epithelial Cells. Pathogens. 12;11(10):1176 (2022)

Schagdarsurengin U, Breiding V, Loose M, Wagenlehner F, Dansranjav T: Interleukin-1 receptor associated kinase 1 (IRAK1) is epigenetically activated in luminal epithelial cells in prostate cancer. Front Oncol 26;12:991368, e-collection (2022)

Vahlensieck W, Heim S, Patz B, Sahin K: Beneficial effects of pumpkin seed soft extract on lower urinary tract symptoms and quality of life in men with benign prostatic hyperplasia: a meta-analysis of two randomized, placebo-controlled trials over 12 months. Clinical Phytoscience 2022; 8:13 (2022)

Nestler S, Peschel C, Horstmann AH, Vahlensieck W, Fabry W, Neisius A: Prospective multicentre randomized double-blind placebo-controlled parallel group study on the efficacy and tolerability of StroVac® in patients with recurrent symptomatic uncomplicated bacterial urinary tract infections. Int Urol Nephrol 10.1007/s11255-022-03379-y (2022)

### Publications 2021

Hemm F., Fijak M., Belikan J., Kampschulte M., El Khassawna T., Pilatz A., Heiss C., Lips K.S. (2021) Bone Status in a Mouse Model of Experimental Autoimmune-Orchitis. Int J Mol Sci, 22(15): 7858.

Lei T., Blois S.M., Freitag N., Bergmann M., Bhushan S., Wahle E., Huang A.C.C., Chen H.L., Hartmann M.F., Wudy S.A., Liu F.T., Meinhardt A., Fijak M. (2021) Targeted disruption of galectin 3 in mice delays the first wave of spermatogenesis and increases germ cell apoptosis. CELL MOL LIFE SCI, 78(7): 3621.

Peek V., Harden L.M., Damm J., Aslani F., Leisengang S., Roth J., Gerstberger R., Meurer M., von Köckritz-Blickwede M., Schulz S., Spengler B., Rummel C. (2021) LPS Primes Brain Responsiveness to High Mobility Group Box-1 Protein. PHARMACEUTICALS-BASE, 14(6): 558.

Schroeder M., Schaumburg B., Mueller Z., Parphys A., Jarczak D., Roedl K., Nierhaus A., de Heer G., Grensemann J., Schneider B., Stoll F., Bai T., Jacobsen H., Zickler M., Stanelle-Bertram S., Klaetschke K., Renné T., Meinhardt A., Aberle J., Hiller J., Peine S., Kreienbrock L., Klingel K., Kluge S., Gabriel G. (2021) High estradiol and low testosterone levels are associated with critical illness in male but not in female COVID-19 patients: a retrospective cohort study. EMERG MICROBES INFEC, 10(1): 1807-1818.

Szczęśniak P., Henke T., Fröhlich S., Plessmann U., Urlaub H., Leng L., Bucala R., Grosse R., Meinhardt A., Klug J. (2021) Extracellular MIF, but not its homologue D-DT, promotes fibroblast motility independently of its receptor complex CD74/CD44. *J CELL SCI*, 134(3): 217356.

Wang M., Yang Y., Cansever D., Wang Y., Kantores C., Messiaen S., Moison D., Livera G., Chakarov S., Weinberger T., Stremmel C., Fijak M., Klein B., Pleuger C., Lian Z., Ma W., Liu Q., Klee K., Händler K., Ulas T., Schlitzer A., Schultze J.L., Becher B., Greter M., Liu Z., Ginhoux F., Epelman S., Schulz C., Meinhardt A., Bhushan S. (2021) Two populations of self-maintaining monocyte-independent macrophages exist in adult epididymis and testis. *P NATL ACAD SCI USA*, 118(1): 100-105.

Zhang Z., Wang M., Zhang Y., Zhang Y., Bartkuhn M., Markmann M., Hossain H., Chakraborty T., Hake S.B., Jia Z., Meinhardt A., Bhushan S. (2021) Uropathogenic Escherichia coli Virulence Factor α-Hemolysin Reduces Histone Acetylation to Inhibit Expression of Proinflammatory Cytokine Genes. *J INFECT DIS*, 223(6): 1040.

Wagenlehner F, Speck T: Infections and hygienic aspects. *Aktuelle Urol* 52(4):330-331 (2021)

Loose M, Naber KG, Purcell L, Wirth MP, Wagenlehner F: Anti-Biofilm Effect of Octenidine and Polyhexanide on Uropathogenic Biofilm-Producing Bacteria. *Urol Int* 105(3-4):278-284 (2021)

Schneidewind L, Anheuser P, Schönburg S, Wagenlehner F, Kranz J: Hyperbaric Oxygenation in the Treatment of Fournier's Gangrene: A Systematic Review. *Urol Int* 105(3-4):247-256 (2021)

Wagenlehner F, Lucenteforte E, Pea F, Soriano A, Tavoschi L, Steele VR, Henriksen AS, Longshaw C, Manissero D, Pecini R, Pogue JM: Systematic review on estimated rates of nephrotoxicity and neurotoxicity in patients treated with polymyxins. *Clin Microbiol Infect* 6:S1198-743X(20)30764-3 (2021)

Piraux A, Faure S, Naber KG, Alidjanov JF, Ramond-Roquin A: Changes in the management of urinary tract infections in women: impact of the new recommendations on antibiotic prescribing behavior in France, between 2014 and 2019. *BMC Health Serv Res* 28;21(1):612 (2021)

Höller M, Steindl H, Abramov-Sommariva D, Wagenlehner F, Naber KG, Kostev K: Treatment of Urinary Tract Infections with Canephron® in Germany: A Retrospective Database Analysis. *Antibiotics (Basel)* Jun 8;10(6):685 (2021)

Abou-Elhamd AS, Sumayli S, Steger K, Ali AKM, Zayed AE: Effect of Khat (*Catha edulis* Forsk) extract on testicular maturation in pre-pubertal and pubertal rats: A morphological and biochemical study. *Anat Histol Embryol Mar*;50(2):271-283 (2021)

Stamatiou K, Samara E, Alidjanov JF, Pilatz AME, Naber KG, Wagenlehner FME: Clinical Validation of the Greek Version of the Acute Cystitis Symptom Score (ACSS)-Part II. *Antibiotics (Basel)* 15;10(10):1253 (2021)

Cakir OO, Castiglione F, Tandogdu Z, Collins J, Alnajjar HM, Akers C, Albersen M, Alifrangis C, Ayres B, Brouwer O, Cullen I, Hawkey P, Jakobsen JK, Johansen TEB, Kalejaiye O, Kaul A, Köves B, Kumar V, Mancini M, Mitra AV, Parnham A, Pozzi E, Protzel C, Sangar VK, Wagenlehner F, Munee A: Management of penile cancer patients during the COVID-19 pandemic: An eUROGEN accelerated Delphi consensus study. *Urol Oncol* 39(3):197.e9-197.e17 (2021)

Tandogdu Z, Collins J, Shaw G, Rohn J, Koves B, Sachdeva A, Ghazi A, Haese A, Mottrie A, Kumar A, Sivaraman A, Tewari A, Challacombe B, Rocco B, Giedelman C, Wagner C, Rogers CG, Murphy DG, Pushkar D, Ogaya-Pinies G, Porter J, Seetharam KR, Graefen M, Orvieto MA, Moschovas MC, Schatloff O, Wiklund P, Coelho R, Valero R, de Reijke TM, Ahlering T, Rogers T, van der Poel HG, Patel V, Artibani W, Wagenlehner F, Maes K, Rha KH, Nathan S, Bjerklund Johansen TE, Hawkey P, Kelly J: Management of patients who opt for radical prostatectomy during the coronavirus disease 2019 (COVID-19) pandemic: an international accelerated consensus statement. *BJU Int* 127(6):729-741 (2021)

O'Donnell L, Reboucet D, Dagley LF, Sgaier R, Infusini G, O'Shaughnessy PJ, Chalmel F, Fietz D, Weidner W, Legrand JMD, Hobbs RM, McLachlan RI, Webb AI, Pilatz A, Diemer T, Smith LB, Stanton PG: Sperm proteins and cancer-testis antigens are released by the seminiferous tubules in mice and men. *FASEB J* Mar;35(3):e21397 (2021)

Kliesch S, Schmidt S, Wilborn D, Aigner C, Albrecht W, Bedke J, Beintker M, Beyersdorff D, Bokemeyer C, Busch J, Classen J, de Wit M, Dieckmann KP, Diemer T, Dieing A, Gockel M, Göckel-Beining B, Hakenberg OW, Heidenreich A, Heinzelbecker J, Herkommer K, Hermanns T, Kaufmann S, Kornmann M, Kotzerke J, Krege S, Kristiansen G, Lorch A, Müller AC, Oechsle K, Ohloff T, Oing C, Otto U, Pfister D, Pichler R, Recken H, Rick O, Rudolph Y, Ruf C, Schirren J, Schmelz H, Schmidberger H, Schrader M, Schweyer S, Seeling S, Souchon R, Winter C, Wittekind C, Zengerling F, Zermann DH, Zillmann R, Albers P: Management of Germ Cell Tumours of the Testis in Adult Patients. German Clinical Practice Guideline Part I: Epidemiology, Classification, Diagnosis, Prognosis, Fertility Preservation, and Treatment Recommendations for Localized Stages. *Urol Int* 105(3-4):169-180 (2021)

Kliesch S, Schmidt S, Wilborn D, Aigner C, Albrecht W, Bedke J, Beintker M, Beyersdorff D, Bokemeyer C, Busch J, Classen J, de Wit M, Dieckmann KP, Diemer T, Dieing A, Gockel M, Göckel-Beining B, Hakenberg OW, Heidenreich A, Heinzelbecker J, Herkommer K, Hermanns T, Kaufmann S, Kornmann M, Kotzerke J, Krege S, Kristiansen G, Lorch A, Müller AC, Oechsle K, Ohloff T, Oing C, Otto U, Pfister D, Pichler R, Recken H, Rick O, Rudolph Y, Ruf C, Schirren J, Schmelz H, Schmidberger H, Schrader M, Schweyer S, Seeling S, Souchon R, Winter C, Wittekind C, Zengerling F, Zermann DH, Zillmann R, Albers P: Management of Germ Cell Tumours of the Testes in Adult Patients: German Clinical Practice Guideline, PART II - Recommendations for the Treatment of Advanced, Recurrent, and Refractory Disease and Extragonadal and Sex Cord/Stromal Tumours and for the Management of Follow-Up, Toxicity, Quality of Life, Palliative Care, and Supportive Therapy. *Urol Int* 105(3-4):181-191 (2021)

Köhn FM, Schuppe HC: Effects of COVID-19 on male fertility. *MMW Fortschr Med* Feb;163(2):50-51 (2021)

Pilatz A, Maresch CC, Discher T, Lohmeyer J, Schüttler CG, Wiltink J, Schuppe HC, Wagenlehner F, Diemer T: Sexual Health in HIV-Positive Men Under Stable Antiretroviral Therapy During a 12-Month Period. *J Sex Med* 18(2):284-294 (2021)

Stadler B, Nowell CJ, Whittaker MR, Arnhold S, Pilatz A, Wagenlehner FM, Exintaris B, Middendorff R: Physiological and pharmacological impact of oxytocin on epididymal propulsion during the ejaculatory process in rodents and men. *FASEB J* 35(6):e21639 (2021)

Alidjanov JF, Khudaybergenov UA, Ayubov BA, Pilatz A, Mohr S, Münst JC, Ziviello Yuen ON, Pilatz S, Christmann C, Dittmar F, Mirsaidov NM, Buch-Heberling M, Naber KG, Bjerklund Johansen TE, Wagenlehner FME: Linguistic and clinical validation of the acute cystitis symptom score in German-speaking Swiss women with acute cystitis. *Int Urogynecol J* Dec;32(12):3275-3286 (2021)

Fritzenwanker M, Grabitz MO, Arneth B, Renz H, Imirzalioglu C, Chakraborty T, Wagenlehner F: Comparison of Urine Flow Cytometry on the UF-1000i System and Urine Culture of Urine Samples from Urological Patients. *Urol Int* 29:1-10 (2021)

Loose M, Sáez Moreno D, Mutti M, Hitzenhammer E, Visram Z, Dippel D, Schertler S, Tišáková LP, Wittmann J, Corsini L, Wagenlehner F: Natural Bred  $\varepsilon 2$ -Phages Have an Improved Host Range and Virulence against Uropathogenic Escherichia coli over Their Ancestor Phages. *Antibiotics (Basel)* 1;10(11):1337 (2021)

Kranz J, Wagenlehner FME, Steffens J, Hakenberg OW, Schneidewind L: Contemporary practice patterns in the treatment of Fournier's gangrene in German academic medicine and their implications for planning a registry study. *Urologe* 60(5):610-616 (2021)

Heudorf U, Weindel M, Wagenlehner F: Antibiotic resistance and antibiotic consumption in a region - using the example of community-acquired urinary tract infections. *Aktuelle Urol* 52(4):345-355 (2021)

Rosenberg S, Bonten M, Haazen W, Spiessens B, Abbanat D, Go O, Wagenlehner F, Shore N, Hagiwara Y, Ibarra de Palacios P, Geurtzen J, Hermans P, Poolman J: Epidemiology and O-Serotypes of Extraintestinal Pathogenic Escherichia coli Disease in Patients Undergoing Transrectal Ultrasound Prostate Biopsy: A Prospective Multicenter Study. *J Urol* 205(3):826-832 (2021)

Vaggers S, Puri P, Wagenlehner F, Somani BK: A Content Analysis of Mobile Phone Applications for the Diagnosis, Treatment, and Prevention of Urinary Tract Infections, and Their Compliance with European Association of Urology Guidelines on Urological Infections. *Urol Focus* 7(1):198-204 (2021)

Berg E, Houska P, Nesheim N, Schuppe HC, Pilatz A, Fijak M, Manthey M, Steger K, Wagenlehner F, Schagdarsurenjin U: Chronic Prostatitis/Chronic Pelvic Pain Syndrome Leads to Impaired Semen Parameters, Increased Sperm DNA Fragmentation and Unfavorable Changes of Sperm Protamine mRNA Ratio. *U. Int J Mol Sci.* 23;22(15):7854 (2021)

Mazuski JE, Wagenlehner F, Torres A, Carmeli Y, Chow JW, Wajsbrot D, Stone GG, Irani P, Bharucha D, Cheng K, Tawadrous M: Clinical and Microbiological Outcomes of Ceftazidime-Avibactam Treatment in Adults with Gram-Negative Bacteremia: A Subset Analysis from the Phase 3 Clinical Trial Program. *Infect Dis Ther* 10(4):2399-2414 (2021)

Cai T, Gallelli L, Cione E, Verze P, Palmieri A, Mirone V, Bonkat G, Wagenlehner FM, Bjerklund Johansen TE: The efficacy and tollerability of pollen extract in combination with hyaluronic acid and vitamins in the management of patients affected by chronic prostatitis/chronic pelvic pain syndrome: a 26 weeks, randomized, controlled, single-blinded, phase III study. *Minerva Urol Nephrol* 29. doi: 10.23736/S2724-6051.21.04141-2 (2021)

Alidjanov JF, Cai T, Bartoletti R, Bonkat G, Bruyère F, Köves B, Kulchavanya E, Medina-Polo J, Naber K, Perepanova T, Pilatz A, Tandogdu Z, Bjerklund Johansen TE, Wagenlehner FM: The negative aftermath of prostate biopsy: prophylaxis, complications and antimicrobial stewardship: results of the global prevalence study of infections in urology 2010-2019. *World J Urol* 39(9):3423-3432 (2021)

Pradere B, Veeratterapillay R, Dimitropoulos K, Yuan Y, Omar MI, MacLennan S, Cai T, Bruyère F, Bartoletti R, Köves B, Wagenlehner F, Bonkat G, Pilatz A: Nonantibiotic Strategies for the Prevention of Infectious Complications following Prostate Biopsy: A Systematic Review and Meta-Analysis. *J Urol.* 205(3):653-663 (2021)

Heudorf U, Weindel M, Wagenlehner F: Antibiotic resistance and antibiotic consumption in a region - using the example of community-acquired urinary tract infections. *Aktuel Urol* 52(4):345-355 (2021)

Schneidewind L, Anheuser P, Schönburg S, Wagenlehner FME, Kranz J: Hyperbaric Oxygenation in the Treatment of Fournier's Gangrene: A Systematic Review. *Urol Int* 105(3-4):247-256. (2021)

Vaggers S, Puri P, Wagenlehner F, Somani BK: A Content Analysis of Mobile Phone Applications for the Diagnosis, Treatment, and Prevention of Urinary Tract Infections, and Their Compliance with European Association of Urology Guidelines on Urological Infections. *Eur Urol Focus* Jan;7(1):198-204 (2021)

Rosenberg S, Bonten M, Haazen W, Spiessens B, Abbanat D, Go O, Wagenlehner F, Shore N, Hagiwara Y, Ibarra de Palacios P, Geurtzen J, Hermans P, Poolman J: Epidemiology and O-Serotypes of Extraintestinal Pathogenic Escherichia coli Disease in Patients Undergoing Transrectal Ultrasound Prostate Biopsy: A Prospective Multicenter Study. *J Urol Mar*;205(3):826-832 (2021)

Kranz J, Wagenlehner FME, Steffens J, Hakenberg OW, Schneidewind L: Contemporary practice patterns in the treatment of Fournier's gangrene in German academic medicine and their implications for planning a registry study. *Urologe* 60(5):610-616 (2021)

Vahlensieck W, El Idrissi R, Gerhard-Franke U, Huber M, Jenner J, Zermann DH: Rehabilitation von Patienten mit Interstitieller Cystitis/Bladder Pain Syndrom (IC/BPS). *Aktuelle Urol*, 52(6):575-582. (2021)

Vahlensieck W, Scheffer K: Unkomplizierte Harnwegsinfektionen – Senföle zeigen Effizienz. *Urologe*; 60(1):52-58. (2021)

Vahlensieck W: Rezidivierende Harnwegsinfektionen - Einsatz von Phytotherapie bei einer unkomplizierten Zystitis. *PraxisDepesche* 2021.; 6

Vahlensieck W: Consilium-Frage 9951 – Nitroxolin zur Rezidivprophylaxe bei rezidivierender Zystitis auch bei ESBL-bildenden Erregern möglich? *Consilium infectiorum* 2021; 65:25-27 (2021)

Vahlensieck W, El Idrissi R, Gerhard-Franke U, Huber M, Jenner J, Zermann DH: Rehabilitation von Patienten mit Interstitieller Cystitis/Bladder Pain Syndrom (IC/BPS). *Aktuelle Urol* 2021; 52(6):575-582. doi: 10.1055/a-1639-9761.

Torres-Fernández LA, Emich J, Port Y, Mitschka S, Wöste M, Schneider S, Fietz D, Oud MS, Di Persio S, Neuhaus N, Kliesch S, Hözel M, Schorle H, Friedrich C, Tüttelmann F, Kolanus W (2021) TRIM71 Deficiency Causes Germ Cell Loss During Mouse Embryogenesis and Is Associated With Human Male Infertility. *Front Cell Dev Biol* 13;9:658966. doi: 10.3389/fcell.2021.658966

**Book Chapters (2020-2023)**

Schuppe H-C, Köhn F-M. Männliche Infertilität (Andrologie). In: Diederich S, Feldkamp J, Grußendorf M et al., Hrsg. 1. Auflage. Stuttgart: Thieme; 2020, pp 338-344

Fietz D, Schuppe H-C, Loveland KL (2022) Immunobiology of Testicular Cancer. In: Interdisciplinary Cancer Research. Springer, Cham. [https://doi.org/10.1007/16833\\_2022\\_7](https://doi.org/10.1007/16833_2022_7)

Schuppe H-C, Köhn F-M (2022) Andrology. In: Plewig G, French L, Ruzicka T, Kaufmann R, Hertl M (eds) Braun-Falco's Dermatology (4th edition). Springer, Berlin, Heidelberg, pp 1527-1568. [https://doi.org/10.1007/978-3-662-63709-8\\_83](https://doi.org/10.1007/978-3-662-63709-8_83)

Köhn F-M, Schuppe H-C (2022) Diseases of the Male Genitalia. In: Plewig G, French L, Ruzicka T, Kaufmann R, Hertl M (eds) Braun-Falco's Dermatology (4th edition). Springer, Berlin, Heidelberg, pp 1473-1486. [https://doi.org/10.1007/978-3-662-63709-8\\_79](https://doi.org/10.1007/978-3-662-63709-8_79)

Diemer T, Schuppe H-C, Weidner W, Pilatz A (2023) Obstruktive Azoospermie. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2279-2284

Schuppe H-C, Köhn F-M, Pilatz A, Fietz D, Weidner W, Diemer T (2023) Andrologische Diagnostik bei Fertilitätsstörungen. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2247-2262

Schuppe H-C, Köhn F-M, Linn T (2023) Endokrine Krankheitsbilder. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2293-2307

Schuppe H-C, Pilatz A, Fietz D, Weidner W, Diemer T (2023) Nicht-obstruktive Azoospermie. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2285-2292

Schuppe H-C, Köhn F-M (2023) Therapieversuche bei idiopathischer männlicher Subfertilität. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2315-2322

Schuppe H-C, Köhn F-M (2023) Kryospermakonservierung und Fertilitätsprotektion. In: Michel MS, Thüroff J, Janetschek G, Wirth MP (Hrsg) Die Urologie (2. Auflage). Springer, Berlin, Heidelberg, S. 2331-2337

Schuppe H-C, Pilatz A (2023) Orchitis. In: Nieschlag E, Behre HM, Kliesch S, Nieschlag S (eds) Andrology (4th edition). Springer Nature, Cham, S. 265-273

Schuppe H-C, Wyrwoll MJ, Fietz D, Tüttelmann F (2023) Disorders of spermatogenesis and spermiogenesis. In: Nieschlag E, Behre HM, Kliesch S, Nieschlag S (eds) Andrology (4th edition). Springer Nature, Cham, S. 275-289

Schuppe H-C, Pilatz A, Meinhardt A, Behre HM (2023) Infections and inflammation of the seminal ducts and accessory glands. In: Nieschlag E, Behre HM, Kliesch S, Nieschlag S (eds) Andrology (4th edition). Springer Nature, Cham, S. 353-371

Meinhardt A, Schuppe H-C, Behre HM (2021) Immunologically induced infertility. In: Nieschlag E, Behre HM, Kliesch S, Nieschlag S (eds) Andrology (4th edition). Springer Nature, Cham, S. 381-386

Köhn F-M, Schuppe, H-C, Rohayem J (2023) Andrologische Verordnungen. In: Nieschlag E, Behre HM, Kliesch S, Nieschlag S (Hrsg) Andrologie. 4. Auflage. Springer, Berlin, S. 879-888; [https://doi.org/10.1007/978-3-662-61904-9\\_52-1](https://doi.org/10.1007/978-3-662-61904-9_52-1)

Schuppe H-C, Köhn F-M (2023) Andrologie für die gynäkologische Praxis. In: Amrani M, Seufert R (Hrsg) Gynäkologische Endokrinologie und Kinderwunschtherapie. Springer, Berlin, S. 157-197

Schuppe H-C, Fijak M, Fietz D, Meinhardt A (2023) Immunologie des männlichen Reproduktionstrakts. In: Würfel W (Hrsg) Reproduktionsimmunologie. Springer Nature, Berlin, S. 19-40

Schuppe H-C, Pilatz A, Fijak M, Fietz D, Meinhardt A (2023) Immunpathologische Prozesse im männlichen Genitaltrakt als Fertilitätsrisiko. In: Würfel W (Hrsg) Reproduktionsimmunologie. Springer Nature, Berlin, S. 207-221