



**European Academy of Andrology**  
**EAA 2<sup>nd</sup> School in Genetics**  
**January 22-24th, 2025**  
**Tallinn, Estonia**

**Organized by the EAA Centre: Andrology Clinic, Tartu University Hospital**

EAA School in Genetics aims to offer the high-quality state-of-the-art level training to physicians and biomedical researchers interested in medical genetics with the specific focus on the genetics of andrological conditions. This will increase the knowhow and broader application of genetic testing among the andrologists, speed up the transfer of knowledge concerning recent advances in genetics and standardization of the utility and interpretation of novel genetic tools in the clinical practice. The course is also expected to promote genetic research in European andrology centres, with the specific focus on promoting synergetic and complementary actions.

***Local organizers and core faculty:***

Kristjan Pomm, MD; Director, Andrology Clinic, Tartu University Hospital

Maris Laan, PhD; professor of human genetics, Vice-Dean for research, Faculty of Medicine, University of Tartu

Margus Punab, MD, PhD; professor of andrology, Andrology Clinic, Tartu University Hospital and University of Tartu

***Local supporting faculty:*** Rain Inno, PhD; Anna-Grete Juchnewitch, MSc; Kristiina Lillepea, Chair of Human Genetics, Faculty of Medicine, University of Tartu; Mailis Sütt, MSc, Andrology Clinic, Tartu University Hospital

***International faculty:***

Aleksander Giwercman, MD, PhD; professor; Dept. of Translational Medicine, Lund University; the Chairman at Fertility Centre, Malmö University Hospital, Sweden

Frank Tüttelmann, MD; Director, Centre of Medical Genetics, Institute of Reproductive Genetics, University of Münster, Germany.

Stephane Viville, PhD; professor, Institut de génétique et de biologie moléculaire et cellulaire (IGBMC), Strasbourg, France

Kristian Almstrup, PhD; Senior Scientist, Dept. of Growth and Reproduction, Copenhagen University Hospital – Rigshospitalet; Associate Professor, University of Copenhagen, Denmark

Miguel Xavier, PhD; Senior Research Associate, Biosciences Institute, Newcastle University, UK

Fredrik Wiklund, PhD; Senior lecturer, Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Stockholm, Sweden

Antonio Capalbo, PhD; Chief Scientific Officer, Juno Genetics; Assistant Professor, Unit of Medical Genetics, Center for Advanced Studies and Technology (CAST), "G. d'Annunzio" University of Chieti-Pescara, Italy

## **COURSE PROGRAMME**

### **Wednesday, January 22<sup>th</sup>**

13:00 Maris Laan, Opening remarks

13:15 – 14:30 **Maris Laan** “Human genome variation – chromosomal, monogenic and complex diseases”

14:30 – 14:45 Coffee break

14:45 – 16:00 Practical exercises 1 – monogenic disorders (in two parallel groups; **Rain Inno, Kristiina Lillepea, Anna-Grete Juchnewitch & Maris Laan**)

16:00 – 16:15 Coffee break

16:15 – 17:00 **Miguel Xavier** “Genomic technologies in advancing molecular diagnostics”

17:00 – 18:15 Practical exercises 2 – chromosomal disorders (in two parallel groups; **Rain Inno, Kristiina Lillepea, Anna-Grete Juchnewitch & Maris Laan**)

19:00 Welcome reception – dinner (Hotel Mercure)

### **Thursday, January 23<sup>rd</sup>**

9:00 – 10:30 **Frank Tüttelmann** “From diagnostic Y-chromosome testing to advanced molecular diagnostics of monogenic male infertility – Münster experience”

10:30– 10:45 *Coffee break*

10:45 – 12:15 **Antonio Capalbo** “Medically assisted reproduction – preconception carrier screening and preimplantation genetic testing” (*Virtual lecture*)

12:15 – 13:00 *lunch*

13:00 – 14:00 **Aleksander Giwercman** “Sperm DNA defragmentation index – methods and clinical value”

14:00 – 15:00 **Kristian Almstrup** “Involvement of long and short non-coding RNAs in the pathogenesis of spermatogenic failure and modulating Klinefelter testicular phenotype.”

15:00 – 18:00 guided tour Tallinn Old City

18:00– ... Dinner in Old City (restaurant **Olde Hansa**, <https://www.oldehansa.ee/our-menus/>)

### **Friday, January 24<sup>th</sup>**

9:00 – 10:30 **Stephane Viville** “Monogenic causes of female infertility and shared etiology with male infertility. A new paradigm in MAR practice.”

10:30-10:45 Coffee break

10:45 – 12:00 **Maris Laan** “Advances of genetics in infertility management – Estonian experience in translating basic research outcomes to the clinic”

12:00 – 13:00 *lunch*

13:00 – 13:45 **Miguel Xavier** “Role of de novo mutations in male infertility – Newcastle experience”

13:45 – 14:45 Discussions led by **Margus Punab & Kristjan Pomm**

“Ethical dilemmas and challenges in andrology in the era of advanced genetic testing”

“Opportunities, rationale and clinical benefit of advanced genetic testing in the efficient management of an infertile couple”

15:00– 15:30 Coffee break

15:30 – 16:00 **Kristian Almstrup** “Genetics of testicular cancer”

16:00 – 17:00 **Fredrik Wiklund** “Germline and somatic genetics of prostate cancer”

17:00 – 17:30 *Wrap-up* discussions on the actions needed to promote advanced genetic testing in European andrology centres, the challenges in test standardization, data interpretation and counselling of patients.

**Farewell!**