

## Sunday November 3<sup>rd</sup>

12h00-18h30 Welcome, meeting registration

18h30-19h00 Opening session by the organizing committee members

19h00-20h00 Opening Lecture by [Olaf Hiort](#): Sex Diversity – Variability of Biological Sex

*20h00 – Dinner & free evening discussions*

## Monday November 4<sup>th</sup>

*07h30-09h00 - Breakfast*

### **SESSION1 : Evolution of sex chromosome & sex determination system**

**Moderator:** Amaury Herpin

09h00-10h00

Opening lecture by [Alexander Suh](#): Sex-biased effects of the songbird germline-restricted chromosome

10h00-10h30

Kang Du, Yuan Lu, Indrajit Nanda, Irene da Cruz, Tristram Dodge, Molly Schumer, Hyun Park, Jean-Nicolas Volf, Yann Guiguen, [Manfred Schartl](#). Evolution of sex determination and sex chromosomes in *Xiphophorus* (platyfishes and swordtails)

*10h30-11h00: Coffee Break*

11h00-11h30

Boudjema Imarazene, Elodie Jouanno, Yu Gao, Amaury Herpin, Alexandr Sember, Manfred Schartl, Sylvain Bertho, Nicolas Rohner, Sylvie Rétaux, [Yann Guiguen](#). Microevolution of sex in *Astyanax mexicanus*: Sex chromosome turnover from a classical A-type to a B-type sex chromosome system

11h30-12h00

[Annekatriin Richter](#), Hanna Mörl, Maria Thielemann, Markus Kleemann, Raphael Geißen, Robert Schwarz, Carolin Albertz, Philipp Koch, Andreas Petzold, Torsten Kroll, Marco Groth, Nils Hartmann, Amaury Herpin, Christoph Englert. The master male sex determinant Gdf6Y of the turquoise killifish arose through allelic neofunctionalization

12h00-12H05

[Álvaro S. Roco](#), Adrián Ruiz-García, Mónica Bullejos. Meiosis, sex chromosomes and polyploidy in *Xenopus tropicalis*

*12h05-13h30: Lunch*

### **SESSION 2: New sex determining genes & epigenetic mechanisms**

**Moderator:** Cyril Djari

13h30-14h00

Irene Mota-Gómez, Juan Antonio Rodríguez, Shannon Dupont, [Alicia Hurtado](#), Vanessa Cadenas, Sara Alexandra García-Moreno, Miguel Torres, Francisca M. Real, Rafael D. Acemel, Blanche Capel, Marc A.

Marti-Renom, and Darío G. Lupiáñez. **Gene regulatory network analyses reveal a redundant function for Meis genes in the specification of sexual identity**

14h00-14h30

**Matthias Stöck**, Heiner Kuhl, Wen Hui Tan, Sophie Leinweber, Mark Blaxter, Manfred Scharl, Jacek Szymura, Christoph Winkler. **Sex determination candidate loci in two anuran species groups**

14h30-14h35

**Magali Dhellemmes**, Mélanie Detti, Elodie Grégoire, Aitana Perea-Gomez, Marie-Christine Chaboissier. **Importance of gene post-transcriptional regulation in gonadal development and sex determination in Mammals**

*14h35-14h55: Short Break*

14h55-15h25

**Alexandra Depincé**, Florent Murat, Violette Thermes, Aurélien Brionne, Manfred Scharl, Amaury Herpin. **Sex Determination in Medaka (*Oryzias latipes*): When Epigenetics Overrides Genetic Determinants**

15h25-15h55

**Laura Sitkiewicz**, Roberta Migale, Gaby Granes, Stephanie Dejardin, Robin Lovell-Badge, Francis Poulat. **Study of the histone methylase SETDB1 in the testicular differentiation**

15h55-16h00

**Blass Ido**, Roni Weiss, Aviva Eliyahu, Yaron Orenstein, Nitzan Gonen. **Predicting and Identifying Disease-Causing Variants in Disorders of Sex Development**

16h00-16h05

**Asma Tajouri**, Syrine Hizem, Faouzi Maazoul, Mediha Trabelsi, Ridha M'rad, Maher Kharrat. **The role of the Next Generation Sequencing in diagnosis and management of patients with Disorders of Sex Development 46, XY**

*16h05-16h35: Coffee Break*

### **SESSION 3: Major genes in testis and ovarian differentiation**

**Moderator:** Chloé Mayère

16h35-17h05

**Elodie P Gregoire**, Marie-Cécile De Cian, Aitana Perea-Gomez, Natividad Bellido-Carreras, Yasmine Neirijnck, Andreas Schedl, Marie-Christine Chaboissier. **Wt1(-KTS) is necessary and sufficient for ovarian determination in mice**

17h05-17h35

**Aitana Perea-Gomez**, Furong Tang, Natividad Bellido-Carreras, Kheira Bouzid, Magali Dhellemmes, Aurélie Lardenois, Chloé Mayère, Pam Siggers, Raissa Kay, Richard Reeves, Aurélie Despoux, Andy Greenfield, Michelle Simon, Serge Nef, Frédéric Chalmel, Marie-Christine Chaboissier. **The WNT potentiator RSPO1 promotes ovarian development by suppressing androgen signaling**

*17h35-17h55: Short Break*

17h55-18h25

[Maëva Elzaiat](#), [Estelle Talouarn](#), Somboon Wankanit, Laurène Schlick, Joëlle Bignon-Topalovic, Sébastien Mella, Etienne Kornobis, Valérie Seffer, Pierre-Henri Commère, Chloé Baum, Herta Ademi, Serge Nef, Ken McElreavey, Anu Bashamboo. **Deciphering the role of DHX37 variants in 46,XY gonadal dysgenesis and testicular regression**

18h25-18h55

[Iris Barka](#), Emilie Dujardin, Aurélie Dewaele, Marjolaine André, Anne Frambourg, Dominique Thépot, Luc Jouneau, Chrystelle Le Danvic, Geneviève Jolivet, Maëlle Pannetier, Béatrice Mandon-Pépin, Eric Pailhoux. **DMRT1 haploinsufficiency leads to secondary infertility in XY male rabbits**

18h55-19h00

Ana Belén Martínez Padilla, Álvaro S. Roco, Adrián Ruiz-García, [Mónica Bullejos](#). **Transient sex reversal during gonadal development in *Mus musculus domesticus* strains**

19h00-19h05

[Aitana Perea-Gomez](#), Natividad Bellido-Carreras, Magali Dhellemmes, Furong Tang, Coralie Le Gallo, Marie-Christine Chaboissier. **NR2F2 is required in the embryonic testis for Fetal Leydig Cell development**

*20h00 – Dinner & free evening discussions*

## **Tuesday November 5<sup>th</sup>**

*07h30-09h00 - Breakfast*

### ***SESSION 4: Sex and gonads outside the body***

**Moderator:** Maëva Elzaiat

09h00-10h00

**Opening lecture by [Robin Lovell-Badge](#): FOXL2 in the development and maintenance of ovarian cell fate**

10h00-10h30

[Somboon Wankanit](#), Maëva Elzaiat, Estelle Talouarn, Laurène Schlick, Pierre-Henri Commère, Ken McElreavey, Anu Bashamboo. **An Ovarian Organoid Model to Understand Human Ovary Development and its Disorders**

*10h30-11h00: Coffee Break*

11h00-11h30

[Aviya Stoppel](#), Cheli Lev, Stav Dahari, Or Adibi, Leah Armon, Nitzan Gonen. **‘Testis in a dish’: Establishing an in vitro System to Model the Testis**

11h30-12h00

[Helena D’Cotta](#), Uma Disdier, Alejandra Valdés-Marin, Lucile Perrier, Nazym Sapargalyeva, Christian Prignon, Carole Rougeot, Gérard Sposito, Claude Amiel, Jens Tetens, Jean-François Baroiller. **Sexing Water: assessing sex ratios using environmental DNA**

12h00-12h05

**Cheli Lev**, Aaron Cohen, Nitzan Gonen. **Mimicking the testis: Generating Stem Cells-derived Testis Organoids**

12h05-12h10

**Maroulina Georgiadi**, Michelle Neumann, Roberta Migale, Manon Lesage, Violette Thermes, Silvana Guioli, Robin Lovell-Badge. **Determining the ability of sex reversed gonads to support spermatogenesis and their effect on behaviour**

*12h10-13h30: Lunch*

## ***SESSION 5: Investigating new processes in gonad development***

**Moderator:** Aitana Perea-Gomez

13h30-14h00

**Chloé Mayère**, Cyril Djari, Coralie Gobbo, Violaine Regard, Serge Nef. **Investigating lineage specific isoform usage in mouse gonadal sex determination with single cell long read RNA sequencing, first insights.**

14h00-14h30

**Kyrylo Krasnykov**, Chloé Mayère, Serge Nef. **Translational control of sex determination and gonad development**

14h30-15h00

Isabelle Stévant, Nitzan Gonen, **Francis Poulat**. **Transposable elements acquire time- and sex-specific transcriptional and epigenetic signatures along mouse fetal gonad development**

15h00-15h05

**Helena Fabbri-Scaliet**, Verónica Calonga-Solís, Maricilda Palandi de Mello, Andréa Maciel-Guerra, Hauke Busch, Axel Kunstner, Olaf Hiort, Ralf Werner, Gil Guerra-Júnior. **Exploring the underlying gene expression in DSD phenotypes through transcriptome analysis**

15h05-15h10

**Meshi Ridnik**, Elisheva Abberbock, Veronica Alipov, Shelly Ziv Lherman, Shoham Kaufman, Maor Lubman, Francis Poulat, Nitzan Gonen. **Two redundant transcription factor-binding sites in a single enhancer are essential for mammalian sex determination**

*15h10-20h00: Free afternoon for poster session / discussions / visit of the site*

*20h00 – Dinner & free evening discussions*

## **Wednesday November 6<sup>th</sup>**

*07h30-09h00 - Breakfast*

## ***SESSION 6: Spatial regulation of SD genes and role of enhancers***

**Moderator :** Alicia Hurtado

09-00-10h00

Opening lecture by [Nitzan Gonen](#): How to enhance sex determination?

10h00-10h30

[Charlotte Matton](#), Hannah Verdin, Kelly Tilleman, Lies Vantomme, Emma Delanote, Kelly Lemeire, Hanne Lenaerts, Julie Van De Velde, Michael B Vaughan, Nele Vandebussche, Mattias Van Heetvelde, Frauke Coppieters, Sarah Vergult, Dominic Stoop, Eva D'haene, Elfride De Baere. **Dissection of the 3D genome and long non-coding RNAs in the regulation of *FOXL2* in novel ovarian granulosa cell models**

*10h30-11h00: Coffee Break*

11h00-11h30

[Isabelle Stévant](#), Elisheva Abberbock<sup>1</sup>, Meshi Ridnik<sup>1</sup>, Roni Weiss, Linoy Swisa, Christopher R Futtner, Danielle Maatouk, Robin Lovell-Badge, Nitzan Gonen. **Mapping cis-regulatory elements in mouse gonadal cell differentiation**

11h30-12h00

[Aviva Eliyahu](#), Elisheva Abberbock, Roni Weiss, Isabelle Stévant, Nitzan Gonen. **Characterization of regulatory elements involved in DSD**

12h00-12h30

[Elisheva Abberbock](#), Meshi Ridnik, Carmel Bemberger, Roni Weiss, Nitzan Gonen. **Mutations within *Enh13* lead to XX sex reversal**

*12h30-13h45: Lunch*

## ***SESSION 7: Origin of the different gonadal cell lineages***

**Moderator:** Dario Lupiáñez

13h45-14h15

Alexandra Depincé, Fany Blanc, Claudia Bevilacqua, Florent Murat, Manfred Scharl, [Amaury Herpin](#). **Challenging the paradigm of an amniote-restricted mesonephric contribution to the gonad. Of the pronephric field contribution to the gonads in teleosts**

14h15-14h45

[Rafael D. Acemel](#), Boris Tezak, Wai Yee Chung, Irene Mota, Alicia Hurtado, Ceri Weber, Blanche Capel, Darío G. Lupiáñez. **Divergent developmental trajectories between environmental and genetic sex-determination in vertebrates**

*14h45-15h05: Short Break*

15h05-15h35

[Cyril Djari](#), Chloé Mayère, Violaine Regard, Coralie Gobbo, Paul Barreau, Karim Hammad, Rita Rahban, Serge Nef. **Fates and differentiation mechanisms of the supporting-like cell lineage in the mouse gonad**

15h35-16h05

[Maëva Guy](#), Chloé Mayère, Émilie Dujardin, Béatrice Mandon-Pépin, Éric Pailhoux, Serge Nef. **Characterization of cellular populations in the fetal ovary of the rabbit *Oryctolagus cuniculus*. Single-cell transcriptomic analysis**

*16h05-16h35: Coffee Break*

## **SESSION 8: Back to DSD in humans**

**Moderator:** Anu Bashamboo

16h35-17h05

**Hannes Syryn**, Elise Callens, Julie Van De Velde, Koen Deserranno, Koen Van de Vijver, Ward De Spiegelaere, Filip Van Nieuwerburgh, Elfride De Baere, Martine Cools. **Unraveling the transcriptome of undifferentiated gonadal tissue: insights into cellular composition and developmental arrest**

17h05-17h35

Mostafa Al-Sharkawi, Leticia Moreno Ambrozini, Helena Fabbri-Scallet, Svenja Denker, Yamil Abdala Maluje Villanueva, Anke Fähnrich, Verena-Wilbeth Sailer, Florian Lenz, Hauke Busch, Olaf Hiort, **Ralf Werner**. **Analysis of gonadal differentiation defects in Differences of Sex Development (DSD) by spatial transcriptomics**

17h35-18h05

**Asma Tajouri**, Maher Kharrat, Syrine Hizem, Hajer Zaghdoudi, Ridha M'rad, Gunter Simic-Schleicher, Frank J. Kaiser, Olaf Hiort, Ralf Werner. ***In vitro* functional characterization of the novel DHH mutations p.(Asn337Lysfs\*24) and p.(Glu212Lys) associated with gonadal dysgenesis**

**18h05-19h00: Plenary discussion around the next ESSDV**

*20h00 – Gala dinner & free evening discussions*

**Thursday November 7<sup>th</sup>**

*07h30-09h00 - Breakfast*

***Please leave your room before 10h00 – Thank you for coming!***