

Andronet News

Summer 2023

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Dear ANDRONET Members,

Since most of us have just returned from the summer break, this edition will be shorter than usual. The main item is the brief report from our main event held in June in conjunction with the 22nd European Testis Workshop (ETW2023), which was co-organized by the ANDRONET. The event was a fantastic success, and we are grateful to the organizers for their hard work!

According to the financial evaluation, the budget for this meeting stayed within the limits and resulted in some surplus, so there will be some extra money to support a few additional exchange research visits – see the point on STSMs in this Newsletter.

This edition also contains a list of recent publications from the ANDRONET members and the Event Calendar for your attention.

ANDRONET's main event in 2023: European Testis Workshop

The 22nd European Testis Workshop (ETW2023), the prime biennial event in the field of testis biology and pathology, took place on June 18-22 at Palace de Caux, Montreux, Switzerland. The Workshop was co-organised and co-financed by the ANDRONET COST Action. ANDRONET contributed substantially to the success of the Workshop and supported the attendance of >70 scientists, thanks to generous reimbursement of expenses, financed by the COST funds. Of the ETW2023 participants, as much as 38% (n= 98) were members of the ANDRONET, and most of them presented or co-authored mini-posters. The Workshop was preceded by the 15th meeting of the Network of Young Researchers in Andrology (NYRA) at the same location.



Rafael Oliva introducing ANDRONET during the opening ceremony of the ETW2023 by the main organizers Pei-Hsuan Wu and Serge Nef

ANDRONET had two dedicated events at the Workshop:

- **The annual meeting of the Management Committee (MC)**

This meeting, held on 20 June 2023, was restricted to the ANDRONET MC members – either present on site or joining online. Brief summaries of the ANDRONET’s activities and plans were presented by the Action and Working Group (WG) leaders or co-leaders: Rafael Oliva (report from the second grant period and the plan for the third one), Davor Ježek (budget summary), Ewa Rajpert- De Meyts (updated science communication plans) & Sandra Laurentino (social media), Ana Katusic Bojanac & Frank Tüttelmann (WG1 activities), and Csilla Krausz (WG2 and WG3 activities). A general discussion followed, with focus on the distribution of the available funds in the next grant period.

- **The ANDRONET Symposium**

A dedicated ANDRONET Symposium, moderated by Rafael Oliva and Csilla Krausz, was held on 21 June 2023 as a plenary session open to all ETW participants. The intention was to inform all members about our progress and plans and also to spread the word about the Action to non-members, hopefully attracting them to join and collaborate. In advance of the Workshop, the ANDRONET leaders submitted five mini-posters, which were included in the book of mini-posters distributed to all ETW participants, and their content presented at the Symposium:

1. **R. Oliva**, C. Krausz, E. Rajpert-De Meyts: *“European Andrology Network: research coordination, education and public awareness in the field of andrology (COST Action CA20119)”*
2. **S. Laurentino**, A. Giwercman, J. Ramalho-Santos, **E. Rajpert-De Meyts**: *“Science Communication and Dissemination”*
3. **D. Ježek**, A. de la Iglesia, J. Slowikowska-Hilczler, Z. Kopa: *“ANDRONET: activity of the Grant Awarding Committee”*.
4. **F. Tüttelmann**, **A. Katusic Bojanac**, J.Castillo, K. Almstrup, K. Komrskova, A. Riera-Escamilla: *“WG1 Resaerch Coordination within European Andrology Network COST Action CA20119”*.
5. L. Antonio, **C. Krausz**, J. Vassallo, L. Björndahl: *“European Andrology Network: Working Group 2: Improving professional education in andrology (COST Action CA20119)”*



The presenters at the ANDRONET Symposium (from the left): Sandra Laurentino, Ewa Rajpert-De Meyts, Davor Ježek, Ana Katusic Bojanac, Csilla Krausz and Rafael Oliva (the last two also moderating the session)

The Symposium was well attended and there was a lively discussion on all our activities and possibilities of networking and short scientific visits between collaborating laboratories.

The triple ETW-NYRA-ANDRONET event broke the attendance records (>260 participants) and was a great success, with an excellent scientific programme, more than a hundred flash talks, and plentiful time for networking – all that in the stunning location on the mountain overlooking the Lake Geneva. The best science was instantly commented upon by Sandra Laurentino, who posted hundreds of witty messages on the ANDRONET's Twitter (now "X") account. The social programme was also fantastic! The gala dinner, which included creative sketches, songs and dances presented by national representations, was entertaining and heart-warming. Congratulations to the main organizers from Geneva, Pei-Hsuan Wu and Serge Nef!



The group photo of the ETW2023 participants: Everybody in the testis field in Europe was there!

Short-term scientific missions (STSM)

Three STSM fellowships were granted so far in 2023, to Sara Di Persio, Ida Sofie Weber Strand, and Ana Planinic. Please note that additional funds are available for the current grant period, so there is your chance to visit another laboratory or group. The applications - including a short motivation letter, CV, and the confirmation from the host at the receiving lab should be submitted to the Grant Awarding Coordinator, Davor Ježek (davorjezek@yahoo.com). Deadline is very short: **30 September 2023**, because the money must be assigned and transferred before the end of the Action budget year in October.

More information is available on the ANDRONET website: <https://www.andronet.cat/stsms/>

Science Corner

Recent publications of ANDRONET members

We highlight here selected publications that are relevant to the Action's objectives and can help you decide on specific collaboration projects with other ANDRONET members. If you want to share your latest publications, please notify the Science Communication Coordinator.

Reminder: if you are a contributor to an article that is co-authored by other ANDRONET members, or if you have benefited from an ANDRONET travel grant (e.g. for STSM or for presenting a mini-poster at the European Testis Workshop thanks to the reimbursement from ANDRONET), kindly remember to acknowledge the support: "XX and XY have benefited from networking grants of COST Action CA20119 (ANDRONET) supported by European Cooperation in Science and Technology (www.cost.eu)".

Johannsen TH, Albrethsen J, Neocleous V, Baronio F, Cools M, Aksglaede L, Jørgensen N, Christiansen P, Toumba M, Fanis P, Ljubicic ML, Juul A. Reduced serum concentrations of biomarkers reflecting Leydig and Sertoli cell function in male patients with congenital adrenal hyperplasia. *Endocr Connect*. 2023 May 1:EC-23-0073.

Dubois V, Ciancia S, Doms S, El Kharraz S, Sommers V, Kim NR, David K, Van Dijck J, Valle-Tenney R, Maes C, Antonio L, Decallonne B, Carmeliet G, Claessens F, Cools M, Vanderschueren D. Testosterone Restores Body Composition, Bone Mass, and Bone Strength Following Early Puberty Suppression in a Mouse Model Mimicking the Clinical Strategy in Trans Boys. *J Bone Miner Res (JBMR)*. 2023 May 24.

Pozzi E, Raffo M, Negri F, Boeri L, Saccà A, Belladelli F, Cilio S, Ventimiglia E, d'Arma A, Pagliardini L, Viganò P, Pontillo M, Lucianò R, Colecchia M, Montorsi F, Alfano M, Salonia A. Anti-Müllerian hormone predicts positive sperm retrieval in men with idiopathic non-obstructive azoospermia - findings from a multi-centric cross-sectional study. *Hum Reprod*. 2023 Jun 15:dead125. Epub ahead of print.

Eliveld J, van der Bles I, van Wely M, Meißner A, Soufan AT, Heijboer AC, Repping S, van der Veen F, van Pelt AMM. The risk of hypogonadism after testicular sperm extraction in men with various types of azoospermia: a prospective cohort study. *Reprod Biomed Online*. 2023 Jun;46(6):973-981.

Calamai C, Ammar O, Rosta V, Farnetani G, Zimmiti S, Giovannelli L, Vignozzi L, Krausz C, Muratori M. Testicular and Haematological Cancer Induce Very High Levels of Sperm Oxidative Stress. *Antioxidants*. 2023; 12(6):1145.

Freitas-Martins A, Sousa MI, Cristo MI, Ramalho-Santos J, Amaral S. Metabolic characterization of human sperm cells using the Seahorse metabolic flux analyzer. *Andrology*. 2023 Jun 25. Epub ahead of print.

Nokoff NJ, Senefeld J, Krausz C, Hunter S, Joyner M. Sex Differences in Athletic Performance: Perspectives on Transgender Athletes. *Exerc Sport Sci Rev*. 2023 Jul 1;51(3):85-95.

Lucotte EA, Guðmundsdóttir VB, Jensen JM, Skov L, Macià MC, Almstrup K, Schierup MH, Helgason A, Stefansson K. Characterizing the evolution and phenotypic impact of ampliconic Y chromosome regions. *Nature Commun*. 2023 Jul 6;14(1):3990.

Dochez-Arnault J, Desdoits-Lethimonier C, Matias I, Evrard B, Lagarrigue M, Toupin M, Lardenois A, Chalmel F, Mazaud-Guittot S, Dejuq-Rainsford N, Gely-Pernot A. Expression of the endocannabinoid system and response to cannabinoid components by the human fetal testis. *BMC Med*. 2023 Jul 11;21(1):219.

Zucchi A, Innocenzi E, Onorato A, Dolci S, Colopi A, Balistreri CR, Grimaldi P. Prenatal exposure to CB₂ receptors agonist differentially impacts male and female germ cells via histone modification. *Mech Ageing Dev*. 2023 Jul;213:111840. doi: 10.1016/j.mad.2023.111840. Epub 2023 Jun 28. PMID: 37385302.

Lauritsen MP, Kristensen TL, Bo Hansen C, Schneider UV, Talbot AL, Skytte AB, Petersen JH, Johannsen TH, Zedeler A, Albrethsen J, Juul A, Priskorn L, Jørgensen N, Westh H, Freiesleben NC, Nielsen HS. The impact of acute SARS-CoV-2 on testicular function including insulin-like factor 3 [INSL3] in men with mild COVID-19: A longitudinal study. *Andrology*. 2023 Jul 8. Epub ahead of print.

Erenpreisa J, Vainshelbaum NM, Lazovska M, Karklins R, Salmina K, Zayakin P, Rumnieks F, Inashkina I, Pjanova D, Erenpreiss J. The Price of Human Evolution: Cancer-Testis Antigens, the Decline in Male Fertility and the Increase in Cancer. *Int J Mol Sci*. 2023 Jul 19;24(14):11660. doi: 10.3390/ijms241411660.

Ješeta M, Pospíšilová A, Mekiňová L, Franzová K, Ventruba P, Lousová E, Kempisty B, Oždian T, Žáková J, Crha I. Non-Invasive Diagnostics of Male Spermatogenesis from Seminal Plasma: Seminal Proteins. *Diagnostics* (Basel). 2023 Jul 25;13(15):2468. doi: 10.3390/diagnostics13152468.

Wehrli L, Galdadas I, Voirol L, Smieško M, Cambet Y, Jaquet V, Guerrier S, Gervasio FL, Nef S, Rahban R. The action of physiological and synthetic steroids on the calcium channel CatSper in human sperm. *Front Cell Dev Biol*. 2023 Jul 20;11:1221578.

Ding X, Singh P, Schimenti K, Tran TN, Fragoza R, Hardy J, Orwig KE, Olszewska M, Kurpisz MK, Yatsenko AN, Conrad DF, Yu H, Schimenti JC. In vivo versus in silico assessment of potentially pathogenic missense variants in human reproductive genes. *Proc Natl Acad Sci USA (PNAS)*. 2023 Jul 25;120(30):e2219925120.

Lesné L, Desdoits-Lethimonier C, Hug E, Costet N, Raffenne L, Toupin M, Evrard B, Kugathas I, Lavoué V, Chalmel F, Jégou B, Mazaud-Guittot S. Antiepileptic drugs are endocrine disruptors for the human fetal testis ex vivo. *Toxicol Sci*. 2023 Jul 28:kfad076.

Ammar OF, Sharma K, Liperis G, Fraire-Zamora JJ, Serdarogullari M, Ali ZE, Ramasamy R, Laurentino S, Watkins A, Mincheva M. Balancing the scales: the interplay of diet, exercise, GLP-1 receptor agonists, and obesity in shaping male reproductive health. *Hum Reprod*. 2023 Aug 1;38(8):1649-1653. doi: 10.1093/humrep/dead126

Quarantani G, Sorgente A, Alfano M, Pipitone GB, Boeri L, Pozzi E, Belladelli F, Pederzoli F, Ferrara AM, Montorsi F, Moles A, Carrera P, Salonia A, Casari G. Whole exome data prioritization unveils the hidden weight of Mendelian causes of male infertility. A report from the first Italian cohort. *PLoS One*. 2023 Aug 4;18(8):e0288336.

Holt R, Yahyavi SK, Kooij I, Poulsen NN, Juul A, Jørgensen N, Jensen MB. Effects of vitamin D on sex steroids, luteinizing hormone, and testosterone to luteinizing hormone ratio in 307 infertile men. *Andrology*. 2023 Aug 9. doi: 10.1111/andr.13505. Epub ahead of print.

Sieper MH, Gaikwad AS, Fros M, Weber P, Di Persio S, Oud MS, Kliesch S, Neuhaus N, Stallmeyer B, Tüttelmann F, Wyrwoll MJ. Scrutinizing the human TEX genes in the context of human male infertility. *Andrology*. 2023 Aug 18.

Alkšere B, Puzuka A, Lazovska M, Vainselbaum NM, Vasiļonoks JK, Penka E, Fodina V, Ērenpreiss J. Exploring the Potential of Exome Sequencing in Idiopathic Azoospermia: A Genetic Burden and Network Analysis Study. *Andrologia*, Article ID 3107568, 2023, in press.

Berres S, Gromoll J, Wöste M, Sandmann S, Laurentino S. OGRE: calculate, visualize, and analyze overlap between genomic input regions and public annotations. *BMC Bioinformatics* 24, 300 (2023). <https://doi.org/10.1186/s12859-023-05422-w>

Krausz C, Navarro-Costa P, Wilke M, Tüttelmann F. EAA/EMQN best practice guidelines for molecular diagnosis of Y-chromosomal microdeletions: State of the art 2023. *Andrology*. 2023 Sep 6. doi: 10.1111/andr.13514. Epub ahead of print.

Event Calendar

25 - 29 September 2023, Münster, Germany

32nd Summer Academy in Andrology and Reproductive Biology, CeRA

Info: Ursula.Rueschhoff@ukmuenster.de

1-3 October 2023, Chateau Liblice, Czech Republic

28th Symposium of Biology and Immunology of Reproduction

Organizer: Kateřina Komrsková

Info: <https://www.sbir.cz/>

8-11 October 2023, Dubrovnik, Croatia

1st Spermatogenesis Conference

Male Germ Cells: From Stem Cells to Diseases

<https://www.fusion-conferences.com/conference/144>

9 - 13 October 2023, Stockholm, Sweden

2nd ANDRONET-EAA Training School in Basic Semen Analysis

Attention: Fully subscribed

Info: Lars Björndahl (Lars.Bjorndahl@ki.se)

8 November 2023, Webinar

FASEB Catalyst Conference "How Gametogenic Genes Promote Cancer"

Info and Registration (free): <https://www.faseb.org/meetings-and-events/catalyst-conference/how-gametogenic-genes-promote-cancer>

10-11 November 2023, Florence, Italy

ESHRE Campus - Factoring genetics in the management of implantation and early pregnancy

<https://www.eshre.eu/Education/Calendar-Campus-events/Factoring-genetics>

4-6 September 2024, Stockholm, Sweden (save the dates!)

ECA 2024 - 13th European Congress of Andrology, <https://eca2024.com/>

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