

# Andronet News

## Summer 2024



### News from the Action Chair

#### Dear ANDRONET Members,

With Summer drawing to an end, our Action had its main event of the year. At the beginning of September, we gathered in an unusually sunny and warm Stockholm to attend the European Congress of Andrology (ECA2024), which included the EAA-ANDRONET co-organised pre-congress course and our annual Management Committee meeting. We can all agree the event was a big success, with excellent science and dynamic interaction between the participants.

We can now look forward to the next events in the field of andrology, such as next year's ANDRONET main event, the European Testis Workshop (ETW2025), which this time takes place in the Netherlands. Information about this and more in our Event Calendar.

Last but not least, we draw your attention to the publications by Action members in our Science Corner. Congratulations to all!

*Rafael Oliva*

### IN THIS ISSUE

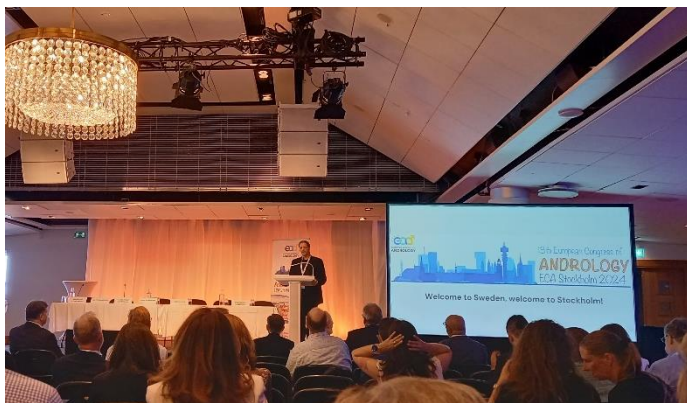
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## European Congress of Andrology 2024 and Management Committee Meeting Report



The world of andrology met in Stockholm from the 4<sup>th</sup> to the 6<sup>th</sup> of September during the European Congress of Andrology, organised by the EAA - European Academy of Andrology. Besides contributing with 8500€ for the organisation of the conference, ANDRONET also supported the participation of over 90 participants. These members attended one or both ANDRONET-related activities that took place during the conference: EAA – ANDRONET pre-congress course “What should the andrologist know in 2024?” on the first day and the Management Committee (MC) meeting on the second day.

The pre-congress course was well attended, not only by ANDRONET members. Several members participated in it as speakers or chairpersons.



*Local organising committee chair and ANDRONET member Jan-Bernd Stukenborg delivering the welcome speech at the ECA2024 opening session.*

During the MC meeting, ANDRONET members had a chance to meet and discuss the developments in the Action. The meeting was also broadcast on Zoom for members who could not attend in person. The meeting was open to all ECA2024 participants and was an excellent opportunity to spread the word about our action to potential members. Action Chair Rafael Oliva started by updating on the progress of ANDRONET and the plans for the future. Working

group leaders (Frank Tüttelmann for WG1, Leen Antonio for WG2, and Andrea Sansone for WG3) and the coordinators of Science Communication (Sandra Laurentino and vice-coordinator Ewa Rajpert-De Meyts) and Grant Awarding Committees (Davor Ježek) followed with short presentations. The presentations ended with a discussion led by Action co-Chair Csilla Krausz. The second part of the MC meeting was focused on ANDRONET members and included the presentation of the proposal for the Work and Budget Plan for the remainder of the Action and future plans. In addition, ANDRONET displayed a poster summarising the Action’s activities in the catering area throughout the congress.



*From left to right: ANDRONET Action Chair Rafael Oliva and Co-Chair Csilla Krausz, WG1 Leader Frank Tüttelmann, WG2 Leader Leen Antonio, WG3 Leader Andrea Sansone, Science Communication Coordinator Sandra Laurentino, and Grant Awarding Coordinator Davor Ježek.*

## Short-term scientific missions (STSM) and Inclusiveness Target Countries (ITC) travel grants

Within the current application period there is still funding available for three **STSMs**. These grants aim to support scientific or educational visits among COST members. The grants cover travel, accommodation, and subsistence expenses up to a maximum of 4000€. This is an excellent opportunity for any member wanting to visit another institution of lab within the ANDRONET environment. **The call is open until the 31<sup>st</sup> of October 2024. An important point to consider is that the STSM must be finished until the end of the call period, i.e. 31<sup>st</sup> of October 2024!** However, a new STSM call will open soon in the new grant period (November 1,

2024 to October 31, 2025). More information can be found here: <https://www.andronet.cat/stsms/>

Moreover, **ITC travel grants** are still available. These cover conference attendance, up to 2000€, of early career researchers (PhD students or post-docs < 8 years) from ITCs. Similar to STSMs the application **deadline is 31<sup>st</sup> of October 2024 and the conference must take place until that date**. Nevertheless, a new call for several ITC travel grants is planned for the new grant period to be used in meetings taking place in the period comprised between November 1, 2024 and October 31, 2025. For more information visit <https://www.andronet.cat/stsms/>

## News from ANDRONET members

This summer, Callista Mulder, Ans van Pelt, and Geert Hamer of the Reproductive Biology Laboratory (LVV) from Amsterdam University Medical Center hosted a group of 15 prominent Japanese clinicians and scientists, including Katsuhiko Hayashi and Takashi Shinohara, pioneers in the field of *in vitro* gametogenesis. The visitors were able to learn about the Dutch experience to implement fertility preservation of testicular tissue. The meeting included a mini-symposium on potential innovations and



collaborations to preserve the fertility of prepubertal children undergoing gonadotoxic (cancer) treatment. Presentations were given by Katsuhiko Hayashi, Takashi Shinohara, Masahito Ikawa, about the possibilities and risks of *in vitro* gametogenesis and large genetic screens. Andreas Meissner, Ieva Masliukaite and Rod Mitchell presented the current progress on male and female fertility preservation in their clinics and in worldwide networks, respectively. The discussions highlighted the mutual learning opportunities and the potential for future collaborations to make safe fertility preservation for childhood cancer survivors a reality.

## Science Corner

### Recent ANDRONET publications

The list below includes articles published since the previous Newsletter, covering the period from June 2024 to the end of August 2024, and a few not listed before. If you want to share your latest publications, please notify the Science Communication Coordinator or post the reference on the Slack.

**Important:** 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 or STSM grant kindly acknowledge the ANDRONET COST Action CA20119 support.

### Collaborative publications with ANDRONET members from several countries:

**Acknowledging ANDRONET:**

De Silva NL, Papanikolaou N, Grossmann M, Antonio L, Quinton R, Anawalt BD, Jayasena CN. Male hypogonadism: pathogenesis, diagnosis, and management. *Lancet Diabetes Endocrinol*. 2024 Aug 16;S2213-8587(24)00199-2. doi: 10.1016/S2213-8587(24)00199-2.

Farnetani G, Vannucci M, Fino MG, Cioppi F, Rosta V, Palma M, Tamburrino L, Vinci S, Casamonti E, Degl'Innocenti S, Spinelli M, Abrardo C, Marchiani S, Lotti F, Muratori M, Riera-Escamilla A, Krausz C. Severe sperm DNA fragmentation may persist for up to 3 years after cytotoxic therapy in patients affected by Hodgkin lymphoma and non-Hodgkin lymphoma. *Hum Reprod*. 2024 Mar 1;39(3):496-503. doi: 10.1093/humrep/dead269.

Porsborg PS, Charmouh AP, Singh VK, Winge SB, Hvilsom C, Pelizzola M, Laurentino S, Neuhaus N, Hobolth A, Bataillon T, Almstrup K, Besenbacher S, Schierup MH. Insights into gene conversion and crossing-over processes from long-read sequencing of human, chimpanzee and gorilla testes and sperm. *bioRxiv* (PREPRINT), doi.org/10.1101/2024.07.05.601967

Sanovec O, Frolikova M, Kraus V, Vondrakova J, Qasemi M, Spevakova D, Simonik O, Moritz L, Lewis Caswell D, Liska F, Ded L, Cerny J, Avidor-Reiss T, Hammoud SS, Schorle H, Postlerova P, Steger K, Komrskova K. Protamine 2 Deficiency Results in Septin 12 Abnormalities. *bioRxiv* (PREPRINT), 24 May 2024, doi.org/10.1101/2024.05.28.596175

Wyrwoll MJ, van der Heijden GW, Krausz C, Aston KI, Kliesch S, McLachlan R, Ramos L, Conrad DF, O'Bryan MK, Veltman JA, Tüttelmann F. Improved phenotypic classification of male infertility to promote discovery of genetic causes. *Nat Rev Urol*. 2024 Feb;21(2):91-101. doi: 10.1038/s41585-023-00816-0.

## Not acknowledging ANDRONET:

Oud MS, de Leeuw N, Smeets DFCM, Ramos L, van der Heijden GW, Timmermans RGJ, van de Vorst M, Hofste T, Kempers MJE, Stokman MF, D'Hauwers KWM, Faas BHW, Westra D. Innovative all-in-one exome sequencing strategy for diagnostic genetic testing in male infertility: Validation and 10-month experience. *Andrology*. 2024 Aug 24. doi: 10.1111/andr.13742.

Rotte N, Dunleavy JEM, Runkel MD, Fietz D, Pilatz A, Kuss J, Dicke AK, Winge SB, Di Persio S, Ruckert C, Nordhoff V, Schuppe HC, Almstrup K, Kliesch S, Neuhaus N, Stallmeyer B, O'Bryan MK, Tüttelmann F, Friedrich C. Genotype-specific differences in infertile men due to loss-of-function variants in *M1AP* or *ZZS* genes. *medRxiv* (PREPRINT) 1 July 2024. doi: <https://doi.org/10.1101/2024.03.20.24304490>

Stallmeyer B, Bühlmann C, Stakaitis R, Dicke AK, Ghieh F, Meier L, Zoch A, MacKenzie MacLeod D, Steingröver J, Okutman Ö, Fietz D, Pilatz A, Riera-Escamilla A, Xavier MJ, Ruckert C, Di Persio S, Neuhaus N, Gurbuz AS, Şalvarci A, Le May N, McEleny K, Friedrich C, van der Heijden G, Wyrwoll MJ, Kliesch S, Veltman JA, Krausz C, Viville S, Conrad DF, O'Carroll D, Tüttelmann F. Inherited defects of piRNA biogenesis cause transposon de-repression, impaired spermatogenesis, and human male infertility. *Nat Commun*. 2024 Aug 9;15(1):6637. <https://doi.org/10.1038/s41467-024-50930-9>

## [Other publications from ANDRONET members:](#)

### Acknowledging ANDRONET:

von Rohden E, Jensen CFS, Andersen CY, Sønksen J, Fedder J, Thorup J, Ohl DA, Fode M, Hoffmann ER, Mamsen LS. Male fertility restoration: in vivo and in vitro stem cell-based

strategies using cryopreserved testis tissue: a scoping review. *Fertil Steril*. 2024 Jul 9;S0015-0282(24)00603-4. doi: 10.1016/j.fertnstert.2024.07.010.

## Not acknowledging ANDRONET:

Boisen IM, Knudsen NK, Nielsen JE, Kooij I, Bagger ML, Kaludjerovic J, O'Shaughnessy PJ, Andrews PW, Ide N, Toft BG, Juul A, Mehmedbasic A, Jørgensen A, Smith LB, Norman RW, Rajpert-De Meyts E, Lanske B, Blomberg Jensen M. Changes in local mineral homeostasis facilitate the formation of benign and malignant testicular microcalcifications. *eLife* 2024, 13:RP95545, <https://doi.org/10.7554/eLife.95545.1>

Borelli-Kjær A, Aksglaede L, Jensen RB, Hagen CP, Ljubicic ML, Busch AS, Upners EN, Fischer MB, Jensen TK, Linneberg A, Kårhus LL, Andersson AM, Petersen JH, Juul A, Johannsen TH. Serum Concentrations of Inhibin B in Healthy Females and Males Throughout Life. *J Clin Endocrinol Metab*. 2024 Jun 26, <https://doi.org/10.1210/clinem/dgae439>

Cannarella R, Crafa A, Curto R, Mongioi LM, Garofalo V, Cannarella V, Condorelli RA, La Vignera S, Calogero AE. Human sperm RNA in male infertility. *Nat Rev Urol*. 2024 Sep 10. doi: 10.1038/s41585-024-00920-9.

Cui Y, Hartevelde F, Ba Omar HAM, Yang Y, Bjarnason R, Romerius P, Sundin M, Norén Nyström U, Langenskiöld C, Vogt H, Henningsohn L, Frisk P, Vepsäläinen K, Petersen C, Mitchell RT, Guo J, Alves-Lopes JP, Jahnukainen K, Stukenborg JB. Prior exposure to alkylating agents negatively impacts testicular organoid formation in cells obtained from childhood cancer patients. *Hum Reprod Open*. 2024 Aug 13;2024(3):hoae049. <https://doi.org/10.1093/hropen/hoae049>

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*. 2024 Jul;12(5):1001-1011. <https://doi.org/10.1111/andr.13489>

Duffin K, Mitchell RT, Brougham MFH, Hamer G, van Pelt AMM, Mulder CL. Impacts of cancer therapy on male fertility: Past and present. *Mol Aspects Med*. 2024 Sep 10;100:101308. doi: 10.1016/j.mam.2024.101308.

Houston BJ, Nguyen J, Merriner DJ, O'Connor AE, Lopes AM, Nagirnaja L, Friedrich C, Kliesch S, Tüttelmann F, Aston KI, Conrad DF, Hobbs RM, Dunleavy JEM, O'Bryan MK. AXDND1 is required to balance spermatogonial commitment and for sperm tail formation in mice and humans. *Cell Death Dis*. 2024 Jul 12;15(7):499. <https://doi.org/10.1038/s41419-024-06874-5>

Krog MC, Nielsen JR, Slot A, Hviid KV, Kolte AM, Westergaard D, Bliddal S, Almstrup K, Nielsen HS. Prospective reproductive outcomes according to sperm parameters, including DNA fragmentation, in recurrent pregnancy loss. *Reprod Biomed Online*. 2024 Aug;49(2):103773. <https://doi.org/10.1016/j.rbmo.2023.103773>

Lundgaard Riis M, Delpouve G, Nielsen JE, Melau C, Langhoff Thuesen L, Juul Hare K, Dreisler E, Aaboe K, Tutein Brenøe P, Albrethsen J, Frederiksen H, Juul A, Giacobini P, Jørgensen A. Inhibition of WNT/ $\beta$ -catenin signalling during sex-specific gonadal differentiation is essential for normal human fetal testis development. *Cell Commun Signal*. 2024 Jun 15;22(1):330. <https://doi.org/10.1186/s12964-024-01704-9>

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Richer G, Goyvaerts C, Marchandise L, Vanhaecke T, Goossens E, Baert Y. Spermatogenesis in mouse testicular organoids with testis-specific architecture, improved germ cell survival and testosterone production. *Biofabrication.* 2024 Aug 14;16(4). <https://doi.org/10.1088/1758-5090/ad618f>

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Stenqvist A, Bungum M, Pinborg AB, Bogstad J, Englund AL, Grøndahl ML, Zedeler A, Hansson SR, Giwercman A. High Sperm DNA Fragmentation Index is associated with an increased risk of preeclampsia following assisted reproduction treatment. *Fertil Steril.* 2024 Aug 7:S0015-0282(24)01939-3. <https://doi.org/10.1016/j.fertnstert.2024.08.316>

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Wood KA, Tong RS, Motta M, Cordeddu V, Scimone ER, Bush SJ, Maxwell DW, Giannoulatou E, Caputo V, Traversa A, Mancini C, Ferrero GB, Benedicenti F, Grammatico P, Melis D, Steindl K, Brunetti-Pierri N, Trevisson E, Wilkie AO, Lin AE, Cormier-Daire V, Twigg SR, Tartaglia M, Goriely A. SMAD4 mutations causing Myhre syndrome are under positive selection in the male germline. *Am J Hum Genet.* 2024 Jul 30:S0002-9297(24)00250-7. doi.org/10.1016/j.ajhg.2024.07.006

## Event Calendar

**30 September - 4 October 2024**

**3<sup>rd</sup> ANDRONET-EAA School in Basic Semen Examination**

Stockholm, Sweden

Information: [Lars.Bjorndahl@ki.se](mailto:Lars.Bjorndahl@ki.se)



**3-4 October 2024**

**ESHRE Campus 2024 – Germ cells and gonads ex vivo: news, views and options**

<https://www.eshre.eu/Education/Calendar-Campus-events/Germ-cells-and-gonads-ex-vivo>

Münster, Germany



5 October 2024

## COST Action experiences in engaging young researchers

The aim of the webinar is to present different ideas and tools that COST Actions have created for their Action network to engage more young researchers and innovators. During the webinar three different COST Actions will share their experiences on their innovative measures to further engage the young researchers and innovators and to increase their participation in the network. The presentations are followed by a participant Q&A.

Join by using the registration link and password below. The registrations will close on Thursday 3 October 2024 (EOB).

Registration link: [COST Academy – COST Action experiences in engaging young researchers - COST](https://cost.academy/cost-action-experiences-in-engaging-young-researchers-cost); Password: YRIweb24



9-11 October 2024

## 10<sup>th</sup> European Testicular Tumor Workshop (ETTW)

<https://www.ettw.eu/homepage>

Prague, Czech Republic



30 October-1 November 2024

## 92<sup>nd</sup> Harden Conference: Germ Cell Cancer Genes

<https://www.eventsforce.net/biochemsoc/205/home>

Solihull (Birmingham), UK

**Note: Abstract submission deadline: 7 October 2024**



13-15 October 2024

## 29<sup>th</sup> Symposium on Biology and Immunology of Reproduction (SBIR) <http://sbir.cz/>

Liblice (near Prague), Czechia



22-24 January 2025

## 2<sup>nd</sup> EAA-ANDRONET School in Genetics

<https://www.andrologyacademy.net/eaa-school-in-genetics>

Tallinn, Estonia



29 March – 1 April 2025

## Joint Congress of the America Society of Andrology & International Congress of Andrology

<https://ica-asa2025.com/>

Washington, D.C., USA



13-17 April 2025

## 23<sup>rd</sup> ETW - European Testis Workshop

The Netherlands

In 2025 ETW will be held in De Ruwenberg, Sint-Michielsgestel, a village close to the city of Hertogenbosch, Brabant, the Netherlands. The ETW 2025 website and registration will become available this autumn and more information will be provided on the Winter Newsletter.

Andronet plans to reimburse up to 100 members participating in this event.



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ANDRONET Science Communication Coordinators  
Contacts: Sandra.Laurentino@ukmuenster.de

COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation

