EAA Andrology Training Centre

Centre Report

2025

Centre identification

Division of Endocrinology
Polytechnic University of Marche
Department of clinical and molecular sciences
Azienda Ospedaliera Universitaria delle Marche Via Conca 71 60126, Ancona, Italy
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CENTRE REPORT

History of Centre

The history of andrology at Clinic of Endocrinology of Polytechnic University of Marche starts in 1995 with G. Balercia, whose activity of clinical care and research was initially under the direction of M. Boscaro.

From the first years of activity, our Centre showed strong interest in research of pathophisiology of fertility, especially for the effects of oxidative stress and the protective action of coenzyme Q on male fertility. A special attention was also paid to cytogenetics of male infertility (chromosome Y microdeletions, gene polimorphysms).

Later, the andrological ambulatory gained continous experience in diagnostic and treatment of male sexual health problems (i.e. erectile disfunction) and in 2002 Prof. Balercia was awarded as 'academicina' by the European Academy of Andrology.

Our Center is awarded as Training Centre in Andrology of the European Academy of Andrology from 2006.

Currently, the Centre is still directed by G. Balercia, who is also the Director of the Division of Endocrinology of the Polytechnic University of Marche (Azienda Ospedaliero Universitaria delle Marche) from 2013.

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Organization of Centre

Unit Name
Division of Endocrinology
Polytechnic University of Marche
Department of clinical and molecular sciences
AOU delle Marche

Director:
Prof. Giancarlo Balercia

Staff (Physicians)
Prof. Gilberta Giacchetti
Dr. Maurizio Cignitti
Dr. Lara Giovannini
Dr. Gianmaria Salvio
Dr. Alessandro Ciarloni
Dr. Michele Perrone
Dr. Nicola Ambo
Dr. Silvia Rossi
Dr. Valentina Di Giacomi
Staff (Laboratory)
Nicola Delli Muti
Sara Sacco
Vignini Arianna

Clinical Services
Outpatient Clinics for sexual medicine, couple infertility, sexual dysfunction,
Scrotal, penile arteries and prostate ultrasound
IUI Embryo transfer
FNA / TESE
IUI

Diagnosis of infertility

Counseling of infertile couple

Ultrasound of male genital tract

Semen analysis

Microdeletions of Y chromosome

Educational activities

Book I

The Clinic is associated to the School of Endocrinology of the Polytechnic University of Marche for postgraduated in Medicine.

Research activities

Clinical research in hypogonadism, erectile disfunction and male infertility
Clinical trials:
- CAH3003: A Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Safety and Efficacy of Crinecerfont (NBI-74788) in Adult Subjects with Classic Congenital Adrenal Hyperplasia, Followed by Open-Label Treatment

Clinical activities

Outpatients andrology activity
Hospitalization availability
Basic and advanced seminology laboratory (including ultrastructural analysis facility)
Molecular biology laboratory (Y-chromosome microdeletions analysis)
Diagnostic tools for erectile dysfunction
Sexological counselling

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Name and address of Centre

Medical Andrology - Clinic of Endocrinology - Dept of Clinical and Molecular Sciences, Polytechnic University of Marche, Azienda Ospedaliero Universitaria delle Marche, Ancona, Italy. Ph: +39.071.5963738 Fax: +39.071.887.300
E.mail: andrologia@ospedaliriuniti.marche.it

Type of Centre

University	
University Hospital	X
Private Centre	

Other (please specify) _____

1. Director Prof. Giancarlo Balercia

Academician [X] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

2a. Clinical responsible _____

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

2b. Clinical responsible _____

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

2c. Clinical responsible _____

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

3. Present Staff *(Senior Scientists)*

1) Name: Giancarlo Balercia
Degree: Medical Head, Full professor
Speciality: Endocrinology

Academician [X] Regular Member [x] EAA Certified Clin. Andrologist [x]

2) Name: Maurizio Cignitti
Degree: Medical Head, MD
Speciality: Obstetrics and Ginecology

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

3) Name: Gianmaria Salvio
Degree: Medical Head, Assistant Professor
Speciality: Endocrinology

Academician [x] Regular Member [x] EAA Certified Clin. Andrologist [x]

4) Name: Gilberta Giacchetti
Degree: Medical Head, Assistant Professor
Speciality: Endocrinology

Academician [x] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

Insert any additional staff below *(if required)*

MD/Biologists/Chemists

1) Name: Nicola Delli Muti
Degree: Biologist, PhD
Speciality: Biology
Full time/part time: Full time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

2) Name: Lara Giovannini
Degree: MD
Speciality: Endocrinology
Full time/part time: Full time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

3) Name: Alessandro Ciarloni
Degree: MD

	Speciality	Endocrinology
	Full time/part time	Part time

Academician [ ] Regular Member [x] EAA Certified Clin. Andrologist [x]

4)	Name	Silvia Rossi
	Degree	MD
	Speciality	Endocrinology
	Full time/part time	Part time

Academician [ ] Regular Member [x] EAA Certified Clin. Andrologist [x]

5)	Name	Sara Sacco
	Degree	PhD
	Speciality	Biologist
	Full time/part time	Full time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

6) Name: Nicola Ambo
Degree: MD
Speciality: Endocrinology
Full time/part time: Part time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

7) Name: Valentina Di Giacomi
Degree: MD
Speciality: Endocrinology
Full time/part time: Part time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

8) Name: Michele Perrone
Degree: MD
Speciality: Endocrinology
Full time/part time: Part time

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [x]

9) Name:
Degree:
Speciality:
Full time/part time:

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

10) Name:
Degree:
Speciality:
Full time/part time:

Academician [ ] Regular Member [ ] EAA Certified Clin. Andrologist [ ]

11) Name:
Degree:
Speciality:
Full time/part time:

Insert any additional staff below *(if required)*

Specialists

1) Name
2) Name
3) Name
4) Name
5) Name

PhD Students

1) Name Alessandro Ciarloni
2) Name
3) Name

Nurses

1) Name Antonella Polimanti
2) Name
3) Name

Laboratory Technicians

1) Name Nicola Delli Muti
2) Name Arianna Vignini
3) Name Sara Sacco

Administrative Personnel

1) Name Luca Micelli
2) Name
3) Name

4. Clinical Activity

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

	2022	2023	2024
New patients	641	673	665
Follow-up patients	573	583	579

Type of patients in the last years (%)	2022	2023	2024
Infertility	240	247	253
Erectile dysfunction	571	583	610
Hypogonadotropic Hypogonadism	131	127	105
Klinefelter	49	53	50
Gynaecomastia	33	41	45
Varicocele	131	132	127
Cryptorchidism	34	40	30
Male sex accessory gland infections	14	15	10
Testicular tumours	1	2	0
Disorders of gender identity	10	13	13
Other	0	3	1

B. Ultrasound (testis, penile, prostate) *

	2022	2023	2024
Total	203	215	204
Controls	194	199	192

** performed at the Department of Radiology*

C. Andrological surgery procedures

	2022	2023	2024
Testicular biopsies	0	0	0
Varicocele ligation	27	30	29
Prostate biopsies	0	0	0
BPH	0	0	0
Prostate cancer	0	0	0
Vasectomy	0	0	0
Vaso-vasostomy	0	0	0
Other	0	0	0

5. A. Andrology laboratory activity

	2022	2023	2024
Semen analyses	403	399	401
Sperm antibodies	310	302	307
Seminal markers	25	29	27

5. B. Andrology laboratory activity

Sperm banking donors Yes [ ] No [x]

Sperm banking cancer patients Yes [ ] No [x]

If yes:			
	2023	2024	2025
Number of samples			

5. C. Histopathologial evaluation of biopsies Yes [ ] No [x]

5. D. Reproductive Hormones Assays Yes [x] No [ ]

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

During the last year about 3500 samples for FSH, LH, testosterone, SHBG or prolactin were measured by chemiluminescent immunoassays

5. E. Y chromosome microdeletions according to EAA/EMQN guidelines Yes [x] No [ ]

If yes number of tests in the past year

Participation to the EAA quality control scheme? Yes [x] No [ ]

If no, specify if available in another lab of the same hospital Yes [ ] No [ ]

Blood karyotyping Yes [ ] No [x]

If no, specify if available in another lab of the same hospital Yes [x] No [ ]

Other genetic tests (please specify)
CFTR, Androgen Receptor

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

IVF Unit Yes [X] No [ ]
If yes please specify: Children, Endocrinology, IVF, Urology, Genetics, Pathology

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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 [ ] No [X]

If yes please specify:

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7. Clinical teaching activity

Duration of training (years): 4

	Number
A: Trainees in the last five years	17
B: Trainees who passed EAA-ESAU\exam for Clinical Andrologist in the last 5 yrs	4
C: Trainees working in the centre preparing to pass the EAA-ESAU examination	2
D: PhD Students	1
E: Medical Students	2
F: Other students (MSc)	

8. Formal Andrology teaching program Yes [x] No [ ]

If yes: specify duration (years/months): Years [4] Months [ ]

	Hours of formal teaching per year	**Professional training (weeks/months)**
Medical Students	20	
PhD Students	40	
Post Graduate students	20	
Trainees		
Other degrees (please specify)		

9. Research Activity (maximum 1 page)

The scientific activities of our center involve several fields of andrology. Some activities were organized and developed locally with the support of Marche Polytechnic University. Others were developed in collaboration with national and international institutions to which data and/or biological samples were sent (or from which they were received). Our main fields of research are:

- Androgen receptor gene polymorphisms: two original articles (10.1111/and.12119, 10.1007/s12020-014-0193-2) regarding the effects of CAG polymorphism on sperm motility were published in Andrology (IF 4.456) and Andrologia (IF 2.532); four papers regarding the effects of CAG polymorphism on male metabolism (10.1007/s11739-016 1479-6, 10.1007/s40618-014-0052-2, 10.1016/j.numecd.2014.02.016, and 10.1155/2013/816740) were published in International Journal of Endocrinology (IF 3.257), Nutrition, Metabolism and Cardiovascular Diseases (IF 4.222), and Journal of Endocrinological Investigation (IF 5.467).

- Role of endothelial dysfunction in andrological diseases: two original papers (10.1155/2018/3720813 and 10.1007/s40618-017-0671-5) regarding vitamin D levels and gonadal function were published in International Journal of Endocrinology (IF 3.257) and Journal of Endocrinological Investigation (IF 5.467). An original paper (10.1111/andr.13169) and a narrative review (10.3390/ijms22010418) regarding hyperhomocysteinemia and erectile dysfunction were published in Andrology (IF 4.456) and International Journal of Molecular Sciences (IF 6.208).

- Role of antioxidants in male infertility: several papers were published regarding the effects of Coenzyme Q10 treatment on male infertility, including two papers (10.1007/s12020-014-0432-6 and 10.1016/j.fertnstert.2008.02.119) published in Endocrine (IF 3.925) and Fertility and Sterility (IF 7.49), and a systematic review (10.3390/antiox10060874) published in Antioxidants (IF 7.675).

Our group also participates to collaborative national projects, including Klinefelter Italian Group (KING). Moreover, we contributed to the EAA Ultrasound study on healthy, fertile men, which results were recently published in Andrology (IF 4.456).

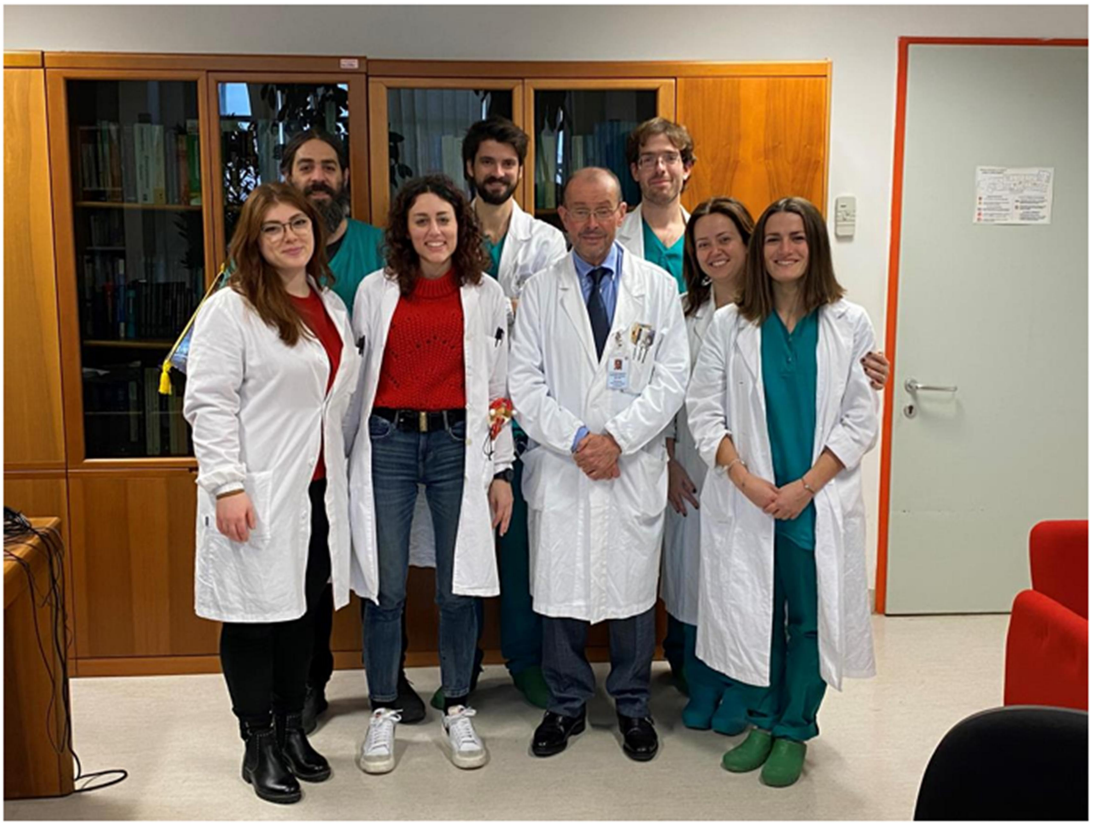
10. Research Funding

Please specify the amount of available funds in the last 3 years and their source (Government, European Union, University, Local Government, Pharmaceutical Industries, Banks, Foundations….)

Year	2022-2025
Total amount (€)	90.000
Funding Source(s)	Italian Ministery of Education; Italian Ministery of Health; Polytechnic University of Marche

Insert any additional funding below if required

CENTRE PHOTOS



FULL LIST OF PUBLICATIONS (with IF) of staff members from the last 5 years

1: Scarpa ES, Antonelli A, Balercia G, Sabatelli S, Maggi F, Caprioli G, Giacchetti G, Micucci M. Antioxidant, Anti-Inflammatory, Anti-Diabetic, and Pro-Osteogenic Activities of Polyphenols for the Treatment of Two Different Chronic Diseases: Type 2 Diabetes Mellitus and Osteoporosis. Biomolecules (IF 4.8). 2024 Jul 11;14(7):836. doi: 10.3390/biom14070836. PMID: 39062550; PMCID: PMC11275061.

2: Salvio G, Martino M, Balercia G, Arnaldi G. Acromegaly and male sexual health. Rev Endocr Metab Disord (IF 8.0). 2022 Jun;23(3):671-678. doi: 10.1007/s11154-022-09721-0. Epub 2022 Apr 1. PMID: 35364803; PMCID: PMC9156476.

3: Salvio G, Martino M, Giancola G, Arnaldi G, Balercia G. Hypothalamic-Pituitary Diseases and Erectile Dysfunction. J Clin Med (IF 2.9). 2021 Jun 9;10(12):2551. doi: 10.3390/jcm10122551. PMID: 34207687; PMCID: PMC8229897.

4: Scarpa ES, Giordani C, Antonelli A, Petrelli M, Balercia G, Silvetti F, Pieroni A, Sabbatinelli J, Rippo MR, Olivieri F, Matacchione G. The Combination of Natural Molecules Naringenin, Hesperetin, Curcumin, Polydatin and Quercetin Synergistically Decreases SEMA3E Expression Levels and DPPIV Activity in In Vitro Models of Insulin Resistance. Int J Mol Sci (IF 4.9). 2023 Apr 29;24(9):8071. doi: 10.3390/ijms24098071. PMID: 37175783; PMCID: PMC10178687.

5: Sabatelli S, Scarpa ES, Giuliani A, Giordani C, Sabbatinelli J, Rippo MR, Cabodi S, Petrini B, Balercia G, Giacchetti G. Pro-Osteogenic Effect of the Nutraceutical BlastiMin Complex® in Women with Osteoporosis or Osteopenia: An Open Intervention Clinical Trial. Int J Mol Sci (IF 4.9). 2024 Aug 6;25(16):8565. doi: 10.3390/ijms25168565. PMID: 39201253; PMCID: PMC11354786.

6: Shah R, et al. Global Practice Patterns in the Evaluation of Non-Obstructive Azoospermia: Results of a World-Wide Survey and Expert Recommendations. World J Mens Health (IF 4.1). 2024 Oct;42(4):727-748. doi: 10.5534/wjmh.230333. Epub 2024 Apr 3. PMID: 38606865; PMCID: PMC11439803.

7: Shah R, et al. Global Andrology Forum. Consensus and Diversity in the Management of Varicocele for Male Infertility: Results of a Global Practice Survey and Comparison with Guidelines and Recommendations. World J Mens Health (IF 4.1). 2023 Jan;41(1):164-197. doi: 10.5534/wjmh.220048. Epub 2022 Jun 13. PMID: 35791302; PMCID: PMC9826919.

8: Salvio G, Ciarloni A, Ambo N, Bordoni M, Perrone M, Rossi S, Balercia G. Effects of glucagon-like peptide 1 receptor agonists on testicular dysfunction: A systematic review and meta-analysis. Andrology (IF 3.4). 2025 Nov;13(8):2022-2034. doi: 10.1111/andr.70022. Epub 2025 Mar 19. PMID: 40105090; PMCID: PMC12569732.

9: Rossi S, Silvetti F, Bordoni M, Ciarloni A, Salvio G, Balercia G. Pembrolizumab-induced Thyroiditis, Hypophysitis and Adrenalitis: A Case of Triple Endocrine Dysfunction. JCEM Case Rep. 2024 Nov 4;2(11):luae200. doi:10.1210/jcemcr/luae200. Erratum in: JCEM Case Rep. 2025 Oct 08;3(11):luaf254. doi: 10.1210/jcemcr/luaf254. PMID: 39498471; PMCID: PMC11532647.

10: Salvio G, Balercia G, Kadioglu A. Hypogonadotropic hypogonadism as a cause of NOA and its treatment. Asian J Androl (IF 2.7). 2025 May 1;27(3):322-329. doi: 10.4103/aja202483. Epub 2024 Oct 22. PMID: 39513636; PMCID: PMC12112936.

11: Delli Muti N, Finocchi F, Tossetta G, Salvio G, Cutini M, Marzioni D, Balercia G. Could SARS-CoV-2 infection affect male fertility and sexuality? APMIS (IF 2.6). 2022 May;130(5):243-252. doi: 10.1111/apm.13210. Epub 2022 Mar 5. PMID: 35114008; PMCID: PMC9314998.

12: Cannarella R, et al. Global Andrology Forum. Does Varicocele Repair Improve Conventional Semen Parameters? A Meta-Analytic Study of Before-After Data. World J Mens Health (IF 4.1). 2024 Jan;42(1):92-132. doi: 10.5534/wjmh.230034. Epub 2023 Jun 22. PMID: 37382284; PMCID: PMC10782123.

13: Rambhatla A, et al. Global Andrology Forum. Global Practice Patterns and Variations in the Medical and Surgical Management of Non-Obstructive Azoospermia: Results of a World-Wide Survey, Guidelines and Expert Recommendations. World J Mens Health (IF 4.1). 2025 Jan;43(1):92-122. doi: 10.5534/wjmh.230339. Epub 2024 Apr 4. PMID: 38606867; PMCID: PMC11704169.

14: Shah R, et al. The Global State of Contemporary Andrology Practice: A Comprehensive Analysis of Clinical Practice, Training Pathways, and Emerging Challenges. World J Mens Health (IF 4.1). 2025 Jun 25. doi: 10.5534/wjmh.250039. Epub ahead of print. PMID: 40583018.

15: Salvio G, Cutini M, Ciarloni A, Giovannini L, Perrone M, Balercia G. Coenzyme Q10 and Male Infertility: A Systematic Review. Antioxidants (IF 6.6). 2021 May 30;10(6):874. doi: 10.3390/antiox10060874. PMID: 34070761; PMCID: PMC8226917.

16: Tossetta G, Fantone S, Delli Muti N, Balercia G, Ciavattini A, Giannubilo SR, Marzioni D. Preeclampsia and severe acute respiratory syndrome coronavirus 2 infection: a systematic review. J Hypertens (IF 4.2). 2022 Sep 1;40(9):1629-1638. doi: 10.1097/HJH.0000000000003213. Epub 2022 Jul 22. PMID: 35943095; PMCID: PMC10860893.

17: Salvio G, Ciarloni A, Cutini M, Delli Muti N, Finocchi F, Perrone M, Rossi S, Balercia G. Metabolic Syndrome and Male Fertility: Beyond Heart Consequences of a Complex Cardiometabolic Endocrinopathy. Int J Mol Sci (IF 4.9). 2022 May 14;23(10):5497. doi: 10.3390/ijms23105497. PMID: 35628307; PMCID: PMC9143238.

18: Agarwal A, et al. Technical Aspects and Clinical Limitations of Sperm DNA Fragmentation Testing in Male Infertility: A Global Survey, Current Guidelines, and Expert Recommendations. World J Mens Health (IF 4.1). 2024 Jan;42(1):202-215. doi: 10.5534/wjmh.230076. Epub 2023 Aug 24. PMID: 37635341; PMCID: PMC10782128.

19: Colonnello E, Limoncin E, Ciocca G, Sansone A, Mollaioli D, Balercia G, Porst H, Zhang H, Yu X, Zhang Y, Jannini EA. The Lost Penis Syndrome: A New Clinical Entity in Sexual Medicine. Sex Med Rev (IF 3.4). 2022 Jan;10(1):113-129. doi: 10.1016/j.sxmr.2021.08.001. Epub 2021 Oct 5. PMID: 34620562.

20: Salvio G, Ciarloni A, Cutini M, Balercia G. Hyperhomocysteinemia: Focus on Endothelial Damage as a Cause of Erectile Dysfunction. Int J Mol Sci (IF 4.9). 2021 Jan 3;22(1):418. doi: 10.3390/ijms22010418. PMID: 33401548; PMCID: PMC7795368.

21: Attia H, Finocchi F, Orciani M, Mehdi M, Zidi Jrah I, Lazzarini R, Balercia G, Mattioli Belmonte M. Pro-inflammatory cytokines and microRNAs in male infertility. Mol Biol Rep (IF 2.8). 2021 Aug;48(8):5935-5942. doi: 10.1007/s11033-021-06593-6. Epub 2021 Jul 28. PMID: 34319544; PMCID: PMC8376712.

22: Agarwal A, et al. Sperm Vitality and Necrozoospermia: Diagnosis, Management, and Results of a Global Survey of Clinical Practice. World J Mens Health (IF 4.1). 2022 Apr;40(2):228-242. doi: 10.5534/wjmh.210149. Epub 2021 Oct 13. PMID: 34666422; PMCID: PMC8987132.

23: Giulioni C, Maurizi V, Castellani D, Scarcella S, Skrami E, Balercia G, Galosi AB. The environmental and occupational influence of pesticides on male fertility: A systematic review of human studies. Andrology (IF 3.4). 2022 Oct;10(7):1250-1271. doi: 10.1111/andr.13228. Epub 2022 Jul 18. PMID: 35793270; PMCID: PMC9541307.

24: Salvio G, Ciarloni A, Gianfelice C, Lacchè F, Sabatelli S, Giacchetti G, Balercia G. The Effects of Polyphenols on Bone Metabolism in Postmenopausal Women: Systematic Review and Meta-Analysis of Randomized Control Trials. Antioxidants (IF 6.6). 2023 Oct 5;12(10):1830. doi: 10.3390/antiox12101830. PMID: 37891909; PMCID: PMC10604028.

25: Gupta S, et al. Antisperm Antibody Testing: A Comprehensive Review of Its Role in the Management of Immunological Male Infertility and Results of a Global Survey of Clinical Practices. World J Mens Health (IF 4.1). 2022 Jul;40(3):380-398. doi: 10.5534/wjmh.210164. Epub 2022 Jan 1. PMID: 35021297; PMCID: PMC9253805.

26: Gianfelice C, Firmani F, Salvio G, Ciarloni A, Ferroni R, Silvetti F, Giovannini L, Pistelli M, Agostinelli V, Berardi R, Balercia G, Giacchetti G. Comparison Between Alendronate and Denosumab in Preventing Bone Loss and Lowering Fracture Risk Related to Adjuvant Endocrine Therapy for Breast Cancer: Real-World Data From a Third-Level Center Experience. Endocr Pract (IF 4.6). 2025 Jul 11:S1530-891X(25)00962-0. doi: 10.1016/j.eprac.2025.07.004. Epub ahead of print. PMID: 40653165.

27: Delli Muti N, Salvio G, Ciarloni A, Perrone M, Tossetta G, Lazzarini R, Bracci M, Balercia G. Can extremely low frequency magnetic field affect human sperm parameters and male fertility? Tissue Cell (IF 2.5). 2023 Jun;82:102045. doi: 10.1016/j.tice.2023.102045. Epub 2023 Feb 18. PMID: 36870312.

28: Martelli M, Salvio G, Lazzarini R, Milinkovic M, Ciarloni A, Balercia G, Santarelli L, Bracci M. Night shift work and serum markers of bone turnover in male shift workers. Chronobiol Int (IF 1.7). 2023 Sep 2;40(9):1270-1278. doi: 10.1080/07420528.2023.2262570. Epub 2023 Oct 9. PMID: 37781875.

29: di Fraia R, Esposito D, Selvaggio LD, Allosso F, Alfano R, Rotondi M, Balercia G, Accardo G, Pasquali D. Increased prevalence of nodular thyroid disease in patients with Klinefelter syndrome. Endocrine (IF 2.9). 2023 Sep;81(3):631-636. doi:10.1007/s12020-023-03387-7. Epub 2023 May 6. PMID: 37148417; PMCID: PMC10403437.

30: Salvio G, Ciarloni A, Cordoni S, Cutini M, Delli Muti N, Finocchi F, Firmani F, Giovannini L, Perrone M, Balercia G. Homocysteine levels correlate with velocimetric parameters in patients with erectile dysfunction undergoing penile duplex ultrasound. Andrology (IF 3.4). 2022 May;10(4):733-739. doi: 10.1111/andr.13169. Epub 2022 Mar 8. PMID: 35224883; PMCID: PMC9310719.

31: Scarpa ES, Amatori S, Caprioli G, Maggi F, Moroncini G, Balercia G, Giacchetti G. Innovative Therapeutic Approaches Targeting Obesity: Can Flavonoids Improve the Efficacy of Anti-Obesogenic Drugs? Int J Mol Sci (IF 4.9). 2025 Oct 18;26(20):10142. doi: 10.3390/ijms262010142. PMID: 41155431; PMCID: PMC12562994.

32: Salvio G, Gianfelice C, Firmani F, Lunetti S, Ferroni R, Balercia G, Giacchetti G. Remote management of osteoporosis in the first wave of the COVID-19 pandemic. Arch Osteoporos (IF 2.8). 2022 Mar 2;17(1):37. doi: 10.1007/s11657-022-01069-x. PMID: 35235056; PMCID: PMC8889057.

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