

5.1.6 Associated Groups

Andrology

Group leader

Ruiz Castañe, Eduard (F.Puigvert)

Researchers

Bassas Arnau, Lluís (F.Puigvert)

De Rocco Ponce, Maurizio (F.Puigvert)

Gonzalez Fernández, Monica (F.Puigvert)

Krausz, Csilla Gabriella (F.Puigvert)

Maestre Loren, Francesc (F.Puigvert)

Martinez Pasarell, Olga (F.Puigvert)

Riera Escamilla, Antoni (F.Puigvert)

Sánchez Curbelo, Josvany (F.Puigvert)

Sarquella Geli, Joaquim (F.Puigvert)

Vives Suñe, Álvaro (F.Puigvert)

Research Technicians

Spinelli, Matilde (F.Puigvert)



DESCRIPTION

The Andrology Group focuses its research on several different fields. The most important areas of interest are: (1) diagnosis and treatment of male and female sexual dysfunction (including erectile dysfunction, premature ejaculation, Peyronie disease, hypoactive sexual desire), (2) diagnosis and treatment of male infertility (including genetics of male infertility and reproductive genomics, and “oncofertility”), (3) sexual transmitted infections, and (4) endocrinological impairments related to male infertility and sexual dysfunctions (including hypogonadism, hyperprolactinemia, and obesity). This research activity is oriented to improve both medical and surgical approaches for each issue.

MAIN LINES OF RESEARCH

- Genetics applied to male infertility. C. Krausz / A. Riera.
- Male fertility preservation in oncological patients. C. Krausz/ A. Riera.
- Optimisation of preimplantation genetics diagnosis and in vitro fertilization techniques. O. Martínez.
- New surgical procedures, drugs and medical devices applied to diagnosis, prevention and treatment of andrological diseases and conditions (male sexual dysfunction, hypogonadism, Peyronie disease, premature ejaculation, sexually transmitted diseases). E. Castañé.
- Sexually transmitted diseases and public health. A. Vives.
- Quality of life and integral sexual approach: gender and psychological aspects. F. Maestre.

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SCIENTIFIC CHALLENGES

Our multidisciplinary team of professionals develops translational and clinical research in the field of diagnosis and treatment of andrological disorders and female sexuality.

- To improve our knowledge and thereby improve healthcare for patients, we seek to continue active projects, develop new lines of investigation, increase the number of international publications, train professionals and enhance collaboration with hospital and university groups inside and outside the IR Sant Pau.
- To promote awareness and divulgate sexuality as a health topic and as the main aspect of global health and quality life inclusive in chronic and ill patients to professionals who require a broad and multidisciplinary approach to their patients.
- To work up in the relationship with patients associations and progressively incorporate them as a work team to develop responsible research with relevant results with social impact.

ACTIVE GRANTS

- Bassas Arnau, Lluís. Impact of COVID-19 on male reproductive health. 202128-31. Fundació La Marató de TV3. Duration: 2021-2024. 50.000,00 €.
- Krausz, Csilla Gabriella. Análisis del exoma en pacientes azoospermicos con bloqueo de la espermatogénesis: desarrollo de un panel genético con valor diagnóstico y pronóstico pre-biopsia testicular. PI20/01562. Instituto de Salud Carlos III (ISCIII). Duration: 2021-2023. 97.889,00 €.
- Krausz, Csilla Gabriella. Severe spermatogenic failure as a sentinel for early diagnosis of late-onset Fanconi Anemia. Fanconi Anemia Research Foundation. Duration: 2021-2023. 103.900,00 \$ (F. PUIGVERT).

GRANTS AWARDED

- Krausz, Csilla Gabriella. Caracterización genómica de la azoospermia debido a sólo células de Sertoli: desarrollo de un panel de genes con valor diagnóstico y pronóstico pre-biopsia testicular. PI23/00425. Instituto de Salud Carlos III (ISCIII). Duration: 2023-2026. 102.500,00 €.

SCIENTIFIC PRODUCTION

- Borràs J, Alonso C, Vives A, Palou J. Neisseria meningitidis and the increase of oral sex. A case report. *Revista Internacional de Andrologia*. 2023; 21(1):100323. DOI:10.1016/j.androl.2021.02.010. PMID:36307367. IF:0,800 (Q4/10D). Document type: Article.
- Chan D, Oros K, Riera A, Krausz C, O'Flaherty C, Chan P, Robaire B, Trasler JM. Sperm DNA methylome abnormalities occur both pre- and post-treatment in men with Hodgkin disease and testicular cancer. *Clinical Epigenetics*. 2023; 15(1):5. DOI:10.1186/s13148-022-01417-1. PMID:36611168. IF:5,700 (Q1/2D). Document type: Article.
- Farnetani G, Fino MG, Cioppi F, Riera A, Tamburrino L, Vannucci M, Rosta V, Vinci S, Casamonti E, Turki L, Degl'Innocenti S, Spinelli M, Marchiani S, Lotti F, Muratori M, Krausz C. Long-term effect of cytotoxic treatments on sperm DNA fragmentation in patients affected by testicular germ cell tumor. *Andrology*. 2023; 11(8). DOI:10.1111/andr.13429. PMID:36932666. IF:4,500 (Q1/3D). Document type: Article.
- Ferre A, Santiago L, Sánchez JF, López O, Sánchez J, Sumoy L, Bassas L, Larriba S. 3'IsomiR Species Composition Affects Reliable Quantification of miRNA/isomiR Variants by Poly(A) RT-qPCR: Impact on Small RNA-Seq Profiling Validation. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2023; 24(20):15436. DOI:10.3390/ijms242015436. PMID:37895116. IF:5,600 (Q1/3D). Document type: Article.
- Jacques C, Alarcón M, Barbera MJ, Fuertes I, Martín G, López J, Vives Á, Rodríguez R, Ros M, Rius C, De Olalla PG. Epidemiological Characteristics and Factors Associated with Repeat Sexually Transmitted Infections in Barcelona, Spain Over a Decade. *ARCHIVES OF SEXUAL BEHAVIOR*. 2023; DOI:10.1007/s10508-023-02711-6. PMID:37875628. IF:3,800 (Q1/2D). Document type: Article.
- Kimmins S, Anderson RA, Barratt CLR, Behre HM, Catford SR, De Jonge CJ, Delbes G, Eisenberg ML, Garrido N, Houston BJ, Jorgensen N, Krausz C, Lisper A, Mclachlan RI, Minhas S, Moss T, Pacey A, Priskorn L, Schlatt S, Trasler J, Trasande



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- Krausz C, Navarro P, Wilke M, Tüttelmann F. EAA/EMQN best practice guidelines for molecular diagnosis of Y-chromosomal microdeletions: State of the art 2023. *Andrology*. 2023; DOI:10.1111/andr.13514. PMID:37674303. IF:4,500 (Q1/3D). Document type: Review.
 - Larriba S, Sánchez JF, Pluvinet R, López O, Bassas L, Sumoy L. Seminal extracellular vesicle sncRNA sequencing reveals altered miRNA/isomiR profiles as sperm retrieval biomarkers for azoospermia. *Andrology*. 2023; DOI:10.1111/andr.13461. PMID:37245055. IF:4,500 (Q1/3D). Document type: Article.
 - Larriba S, Vignes F, Bassas L. Using Small Non-Coding RNAs in Extracellular Vesicles of Semen as Biomarkers of Male Reproductive System Health: Opportunities and Challenges. *INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES*. 2023; 24(6):5447. DOI:10.3390/ijms24065447. PMID:36982521. IF:5,600 (Q1/3D). Document type: Review.
 - Plata L, López O, Bassas L, Larriba S. Experimental validation of seminal miR-31-5p as biomarker for azoospermia and evaluation of the effect of preanalytical variables. *Andrology*. 2023; 11(4). DOI:10.1111/andr.13286. PMID:36057114. IF:4,500 (Q1/3D). Document type: Article.
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