



# YONI BAERT

Assistant professor / Postdoctoral researcher  
Vrije Universiteit Brussel

## PROFILE

35 years old

Biomedical scientist

Member of IVTD, IC-3Rs and BITE

## EDUCATION

**Vrije Universiteit Brussel**

PhD in Medical Sciences 2016

## CONTACT

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## PROJECT OUTLINE

### Development of a representative, reliable and reproducible *in vitro* model for (human) testis

Diseases, chemicals, and genetic alterations that effectuate male infertility remain largely understudied. A comprehensive physiomimetic *in vitro* testis model is long overdue and highly needed to better understand the causes of male infertility and find effective treatments.

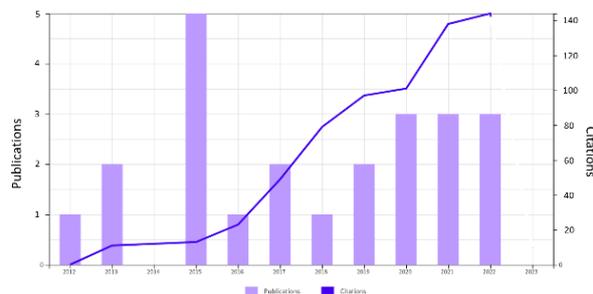
Nowadays, the prevailing method for *in vitro* spermatogenesis in mammals typically involves the use of animal organ culture systems. Despite its successes, an important shortcoming of this approach is the entrapment of cells within the boundaries of the tissue fragment, making them inaccessible for specific manipulations and turning organ cultures inefficient for exploratory studies. Moreover, the translation of the system to humans is hampered by the limited access to human donor tissue. In contrast, the testicular organoid (TO) culture system is tailorable and scalable, and it requires low cell input. TOs are therefore an excellent male fertility R&D tool.

Although the TO research area is still relatively new, it evolves at a fast pace. Given the recent achievements in TO cultures related to recapitulation of testicular architecture, synthesis of testicular hormones, and spermatogenesis, advanced (human) testis physiomicry *in vitro* seems to be only a matter of time.

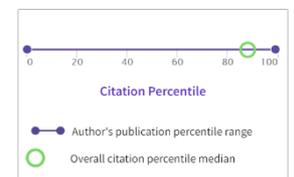
## RESEARCH OUTPUT

Research & author impact (Web of Science 07/2023)

- o Total publications: 27 - First author: 8; co-author: 9; last author: 5; book chapter: 1, book protocol chapters: 3 (+ 3 submitted)
- o Total citations: 727 - Without self-citations: 701, h-index: 13



Author Impact Beamplot Summary



Percentile range displays for authors from 1980 to 2021. View all publications in full beamplot.

- o Overall citation percentile median: 89<sup>th</sup>

Images from Baert et al. 2017 Stem Cell Reports were chosen for the cover of the Stem Cell Reports Best of 2016-2017 issue.



## ACTIVITIES

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### Lectures

- Presentation at invitation: Innovation Centre-3Rs 2023 (Brussels, Belgium), ISFP 2022 (Brussel, Belgium), ECA 2022 (Barcelona, Spain), DGA 2022 (Muenster, Germany), Online TSP Symposium 2020 (Istanbul, Turkey), IRTG meeting 2018 (Melbourne, Australia), ISARG 2018 (Tel Aviv, Israel), Innovation Centre-3Rs 2017 (Brussels Belgium)
- Seminars at invitation: Stem Cell Institute Leuven (KUL, Leuven, Belgium), Centre for Reproductive Health 2019 (Hudson Institute, Melbourne, Australia), Centre for Reproductive Medicine 2016 (UZ Brussel, Brussels, Belgium), Medical Faculty 2016 (VUB, Brussels, Belgium)
- Presentation after selection: ECA 2018 (Budapest, Hungary), VFS meeting 2015 (Antwerp, Belgium), ESHRE Workshop 2014 (Brussels, Belgium), ETW 2012 (Stockholm, Sweden), VFS meeting 2011 (Ghent, Belgium)

### Supervision, teaching and reviewing record

- Co-promoter: 4x PhDs (ongoing), 11x Masters, 6x Bachelors
- Teaching: Experimental Biology III practical course
- Reviewer: 15x journals, 5x PhD theses, 1x Children with cancer UK project, 1x French ANR project, 1x Polish NCS project, 15x Master theses
- Panel member: 1x NIH/NICHHD meeting (USA), 4x FWO mock defence, 1x Bachelor thesis defence

## GRANTS AND PRIZES

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### Fellowships & awards

- IWT predoctoral fellowship (2012-2015) + bench fee (€14 874)
- FWO travel grant for secondment to Karolinska Institutet (2014-2015; €14 000)
- Willy Gepts Foundation PhD graduation grant 2016 (€24 000)
- FWO postdoctoral fellowship (2016-2019) + bench fee (€12 000)
- FWO travel grant for secondment to Melbourne University (2018-2019; €15 000)
- FWO senior postdoctoral fellowship (2019-2022) + bench fee (€40 000)

### Grants as promotor – National

- Willy Gepts Foundation grant 2017 (€21 500)
- FWO Krediet aan navorser 2019 (€30 000)
- Willy Gepts Foundation grant 2020 (€9 900)
- Willi Gepts Foundation PhD graduation grant 2021 (€40 000)
- Willy Gepts Foundation grant 2022 (€46 400)
- FWO Junior Research project 2022 (€335 900)
- FWO conference organization grant 2023 (€2000)

### Grants as promotor – International

- Sällskapet Barnavård-Karolinska Institutet grant 2012 (41 400sek)

### Grants with contribution

- FWO conference organization grant 2017 (€2 500)
- FWO medium-scale research infrastructure 2019 (€1 000 000)
- Strategic Research Programmes – VUB 2022 (€540 000)

## OUTREACH

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- Board memberships & conference organizer: NYRA annual meeting (2014-2019), President of NYRA (2017-2019), VUB's Animal Welfare Body (2019-Present), VUB's Ethical Committee for Animal Experiments (2023-Present), IC3Rs symposium (2023)
- Chairmanships: ECA 2018
- Newsletters: NYRA seasonal (2014-2019)
- Press reports: University magazine (2017), Wtnschp.be (2017), gezondheid.be (2016), zorganderstv.be (2016)