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PhD in Medical Sciences
2020-2021

INVITATION to the Public defence of

Annalisa Racca

To obtain the academic degree of '**DOCTOR OF MEDICAL SCIENCES**'

Elevated Progesterone Revisited: The fire is not yet extinguished.

The defence will take place on Tuesday, 22nd September 2020 at 5 p.m.

and will be organised online

via Zoom meeting, accessible through the following link:

https://gf.vub.ac.be/redirects/PhD_defense_Annalisa_Racca.php

and in Auditorium Piet Brouwer

ADMITTANCE to the auditorium will only be granted upon presentation of the personal invitation from the PhD candidate.

Summary of the dissertation

The main aim of the present thesis is twofold. First, to retrospectively investigate the association between progesterone level and embryo quality, embryo utilization rate and cumulative live birth rates, and to look into the outcomes from oocyte donor-recipient cycles in case of progesterone elevation. Second, to optimize freeze-all treatments, by comparing conventional live birth rates, and reduced multiple pregnancy rates, compared to a double embryo transfer.

The results demonstrate that elevated progesterone is associated with reduced embryo quality and embryo utilization rate. In the first study, cumulative live birth rate also seemed affected; however, the later study focusing on freeze-all cycles could not confirm that finding. Oocyte donor-acceptor cycles did not show any adverse effect of elevated progesterone levels on embryo quality nor on any pregnancy outcome. When looking at the optimal protocol for frozen embryo transfer, the short protocol (one week) has comparable outcomes as the long protocol (two weeks). Also, there is no significant difference in live birth rate comparing single embryo transfer versus double embryo transfer. However, the rate of multiple pregnancies is significantly lower.

Curriculum Vitae

Annalisa Racca was born on February 26th 1987, in Cuneo, Italy. She performed most of her education in Cuneo, until 2006 when she moved to Genoa to start Medical school. On 27.7.2012 she graduated cum laude in medicine. Between 2013 and 2018 she followed a specialty training in Obstetrics and Gynaecology at San Martino, University Hospital of Genoa. Between 2016 and 2018, during her specialty, she started an abroad rotation at the Centre for Reproductive Medicine of the Universitair Ziekenhuis Brussel (Brussels). After her specialty, she started a subspecialty training in Reproductive Medicine at the Centre for Reproductive Medicine of the Universitair Ziekenhuis Brussel, where she is currently working as a clinical fellow. In 2018, she initiated a Global Clinical Scholar Research Training organized by Harvard Medical School (Boston); on 31.8.2020 she obtained a master's degree with commendation in statistics.

Her main focus is the potential effect of elevated serum progesterone levels during ovarian stimulation on embryo-quality and endometrial receptivity. She is currently the principle investigator of three ongoing clinical trials respectively on FSH dose after day eight of stimulation; on the effect of Lipiodol on the endometrial receptivity and on the best protocol for frozen embryo transfer with the aim of shorten the time to pregnancy. She is co-author of 26 publications in peer-reviewed scientific journals (5 of which as first author), she performed 22 oral scientific presentation and presented multiple posters in international conferences.