

1-2020

## Down Regulation with Luteal GnRH Agonist Therapy in Euploid Embryo Transfers Does Not Impact Pregnancy Rates

Isabelle Levin

Thomas Jefferson University, [isabelle.levin@jefferson.edu](mailto:isabelle.levin@jefferson.edu)

Keri Bergin, MD

Thomas Jefferson University, [keri.bergin@jefferson.edu](mailto:keri.bergin@jefferson.edu)

Dmitry Gounko

Joseph Lee

Thomas Jefferson University, [joseph.lee@jefferson.edu](mailto:joseph.lee@jefferson.edu)

Alan Copperman, MD

Follow this and additional works at: [https://jdc.jefferson.edu/si\\_ctr\\_2022\\_phase1](https://jdc.jefferson.edu/si_ctr_2022_phase1)

 Part of the [Obstetrics and Gynecology Commons](#), and the [Translational Medical Research Commons](#)

[Let us know how access to this document benefits you](#)

---

### Recommended Citation

Levin, Isabelle; Bergin, MD, Keri; Gounko, Dmitry; Lee, Joseph; and Copperman, MD, Alan, "Down Regulation with Luteal GnRH Agonist Therapy in Euploid Embryo Transfers Does Not Impact Pregnancy Rates" (2020). *Phase 1*. Paper 45.

[https://jdc.jefferson.edu/si\\_ctr\\_2022\\_phase1/45](https://jdc.jefferson.edu/si_ctr_2022_phase1/45)

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Phase 1 by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: [JeffersonDigitalCommons@jefferson.edu](mailto:JeffersonDigitalCommons@jefferson.edu).

## SI/CTR Abstract

### DOWN REGULATION WITH LUTEAL GnRH AGONIST THERAPY IN EUPLOID EMBRYO TRANSFERS DOES NOT IMPACT PREGNANCY RATES

Isabelle Levin BA, Keri Bergin MD, Dmitry Gounko BS, Joseph Lee BA\*, Alan Copperman MD

**Introduction:** Gonadotropin-releasing hormone (GnRH) agonists have been used during assisted reproductive technology (ART) treatment for pituitary suppression and stimulation. Currently, clinical opinion is divided about whether GnRH agonist therapy improves pregnancy rates when used for luteal down-regulation in a frozen euploid embryo transfer (FET). This study evaluated the clinical utility of GnRH agonist down-regulation in single, euploid FET cycles.

**Methods:** A retrospective analysis was performed, using data from patients who underwent a single, euploid FET cycle from 2012 to 2019. Patients were segregated into two cohorts: Group A: single, euploid FET with down-regulation using GnRH agonist; Group B: single, euploid FET without down-regulation using GnRH agonist. Primary outcomes include pregnancy rates among cohorts.

**Results:** Group A demonstrated a pregnancy rate of 72.92% in 96 cycles. Group B demonstrated a pregnancy rate of 73.27% in 5,668 cycles. There was no difference in pregnancy rates between groups,  $\chi^2(2, N = 5764) = .0061, p = .94$ . A subgroup of patients ( $n=5$ ) with endometriosis in Group A achieved an 80% (4/5) pregnancy rate.

**Discussion:** Single, euploid FET cycle pregnancy rates were not affected by the use of down-regulation with a GnRH agonist. Increased pregnancy rates found with prolonged GnRH agonist use in other studies weren't seen with short term use for FET cycles. Future research should focus on molecular markers and gene transcription signatures to attempt to define whether there is an ideal population of patients who would benefit from GnRH agonist down-regulation prior to FET.