Fertility Tracking Wearable Ava Unveils First Results of Clinical Trials Proving Correlation Between Pulse Rate and Identification of a Woman’s Fertile Window

Company also announces launch of new pregnancy app for users who successfully conceive

San Francisco & Zurich – May 10, 2017—Ava, a medical technology company focused on innovations in women’s reproductive health, today announced the publication of the first findings from its recent clinical trials proving evidence of a significant increase — an average of two beats per minute — in resting pulse rate at the beginning of the fertile window compared to the menstrual phase.

The significance of these findings – which appear in the May 2nd issue of Scientific Reports, a peer-reviewed journal from the Nature Publishing Group – is that resting pulse rate can be used to identify the beginning of the fertile window in real time. In combination with temperature and other supporting parameters, the Ava bracelet detects the five most fertile days of a woman’s cycle. Other currently available methods of fertility tracking such as LH ovulation strips can only identify the last 12 – 24 hours of fertility, and those reliant solely on basal body temperature recognize only the day after ovulation, when the fertile window is already over.

“What many women and their partners don’t realize is that a woman can only get pregnant five days before ovulation and the day of ovulation itself,” explained Prof. Dr. med. Brigitte Leeners, the renowned fertility and women’s reproductive health expert who led the studies at the University Hospital of Zurich. “In our research, we found that resting pulse rate usually is lowest during menstruation but rises significantly five days before ovulation and again after ovulation. Ava is the first technology that uses temperature, resting pulse rate, and other parameters, including heart rate variability, sleep and bioimpedance, to provide a convenient and accurate at-home method to identify the beginning of the fertile window.”

“We are committed to advancing the technology of women’s health tracking and deepening scientific understanding of the menstrual cycle through clinical research. Ava is an innovative way to detect more fertile days, earlier within a woman’s cycle, compared to other methods,” said Peter Stein, Ava Co-Founder and Vice President of Research and Development.

Ava Pulse Rate Research Details & Methodology
Ava’s pulse rate findings are the result of two separate prospective observational trials. Data from a total of 91 women with these trials were included in the final paper published by Scientific Reports. Both trials were led by Prof. Dr. med. Leeners at the University Hospital of Zurich. Pulse rate was measured during sleep using photoplethysmographic (PPG) sensors.

Ava’s goal with the research was to find out whether it was possible to use wrist-worn wearable sensors to give women an accurate, convenient, at-home method of predicting ovulation. The clinical study concluded that temperature and resting pulse rate can be used along with several other parameters to precisely detect the fertile window. Resting pulse rate increases at the beginning of the fertile window and continues to increase after ovulation, reaching a peak in the mid-luteal phase (when it is 3.5 beats higher than during the menstrual phase).
To date, the University Hospital Zurich and Ava have presented the results of these trial results at several notable OB-GYN conferences in Europe and the US, including SGGG, DGGG and ASRM, and the World Congress of the Academy of Human Reproduction in addition to publishing a paper in *Scientific Reports* (view full article [here](#)). Ava has plans to publish additional papers based on additional findings from data gathered in this and ongoing clinical trials related to skin temperature, ovulation confirmation, contraception and physiological indicators of complications during pregnancy.

### Ava Adds New Pregnancy Monitoring Features to Mobile App

In addition to announcing publication of the first results of its clinical trials related to pulse rate, Ava today announced it will be introducing a host of new features for its mobile app designed for Ava users who conceive, to be used during pregnancy. The new app experience – available June 1st for Ava users – provides week-by-week, in-depth explanations of the changes that occur throughout pregnancy for mother and baby, as well as information about:

- Sleep quality/quantity
- Physiological stress
- Resting pulse rate
- Skin temperature
- Weight

“With more than 50 confirmed pregnancies to date among Ava users, we wanted to add features enabling them to continue monitoring their sleep and physiological stress throughout pregnancy,” said Lea von Bidder, Co-Founder and CEO of Ava Science, Inc. “Ava’s vision is to accompany women through all different life stages and this is a major step for us in reaching that vision.”

### About Ava

Founded in Switzerland in 2014 by Pascal Koenig, Philipp Tholen, Peter Stein and Lea von Bidder, **Ava** is a medical technology company dedicated to bringing innovation to women’s reproductive health. The Ava bracelet, which received The Bump “Best of Baby Tech CES 2017” award for fertility and pregnancy and the Women’s Health “Editors’ Choice” award, is the company’s first consumer product. It uses sensor technology combined with clinically tested data science to precisely detect a woman’s entire fertile window in real time. The company is also conducting clinical studies to adapt and expand its algorithms for use in pregnancy monitoring, and future use as a non-hormonal contraceptive device. Backed by seed and Series A funding, Ava has operations in Zurich and San Francisco.

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