

## A Materials Research Science and Engineering Center Program Highlight

The CCMR has designed multiple programs to facilitate interactions with Cornell experts for companies ranging from startups to multinationals. Some entrepreneurs have taken full advantages of the program.

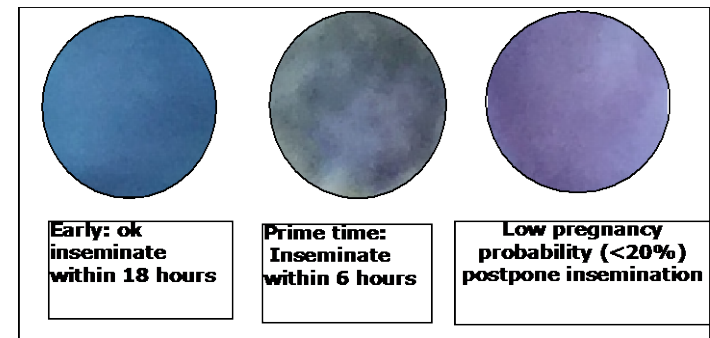
Oratel, a startup from Hammondsport NY, developing medical and veterinary tests, based on pigment interactions with biological markers, benefited from multiple partnerships facilitated by the CCMR. Dorothee Goldman, Oratel's founder, develop the first outline of its business plan during a CCMR-sponsored workshop. The company received then matching funds during 2 JumpStarts projects and one Industrial Collaboration project (ICP).

Working with Prof. Antje Beaumner, Biological Engineering, the company optimized the matrix necessary to bind plant-based pigments used in a saliva- and color-based endometriosis diagnostics test, based on interaction between pigments and proteins present in the vaginal tissue at different phases of the oestrus cycle, and similar to a pregnancy test. Clinical trials are now performed at Brigham and Women's Hospital, Boston, MA.

The company is also focusing on a patented single-use test enabling dairy farmers to determine the best time to inseminate their cows. The company worked with Prof. Uli Wiesner, Materials Science, to encapsulate the pigments necessary to identify the different phases of the estrus cycle and extend the test shelf-life. Large-scale field trials on 10 different commercial dairy farms were performed through a USDA-sponsored Phase I SBIR grant and is applying for a phase II grant. Current data demonstrate that the Oratel test can increase average on-farm conception rates by 15-20% and saves 10% of the farmer's insemination cost. It has been made easy-to-use and can be performed in a single step.

### CCMR-to-Farm!

## Oratel Diagnostics<sub>llc</sub>



The changes in pigmentation indicate the phase of the oestrus cycle. The visual color response can be read on site within 10 seconds.