

## A NOVEL IDEA, ADOPTED

**J**ames Olcese is a step closer in his quest to find a better way for treating common and serious health issues related to pregnancy. The associate professor of biomedical sciences recently received an important endorsement from the U.S. Patent Office.

U.S. Patent No. 8,445,436, issued to Olcese in late May, supports his theory that the naturally produced hormone melatonin may help

produce a better alternative for women in preterm labor, or in need of induced labor.

His invention proposes a pharmaceutical composition containing oxytocin, the hormone currently used to induce birth, and melatonin as a safer and more effective alternative. His research shows such a composition would be therapeutically effective without the degree of side effects found with the use



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of oxytocin alone.

Conversely, he proposes blocking oxytocin and melatonin receptors as “a powerful new strategy” to control preterm labor.

Supported by a grant from the William F. Milton Fund at Harvard University, Olcese is extending a pilot study in which his team examined the impact of blocking melatonin synthesis on uterine contractions in late-term pregnant volunteers. The hypothesis was that by reducing the melatonin signal to the uterus, the contraction frequencies would drop significantly.

“This is exactly what we found in the modest number of women that we studied,” Olcese said. “By enlarging this study to more than 50 subjects we hope to confirm in an independent laboratory at Brigham and Women’s Hospital in Boston the validity of our hypothesis that melatonin plays a key role in the timing of human labor.”

“Together with our newly awarded patent this should accelerate interest in this novel approach to managing obstetrical challenges, such as delayed or premature labor.”