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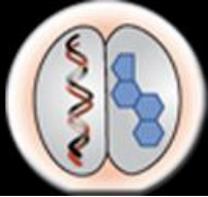
**Major Professor:** Ricki Colman, PhD

**Degree Objective:** M.S Endocrinology and Reproductive Physiology

**Background:** B.S. Biology, Universidade Federal do Rio Grande do Norte – Natal, RN, Brazil

**Current Research Project:**

There is growing recognition that consistent individual differences, often referred to as personality, play an important role in primates' adaptations to their environments. It is likely that personality influences depression-like symptoms by affecting how individuals cope with situations. The common marmoset is a group dwelling primate where families remain together to raise offspring. The young often remain in the family unit well past puberty and learn parenting skills by caring for their younger siblings. The family-living social system can provide a social buffer against stressful events that occur through early life into adulthood. Social buffering occurs when a social support system helps buffer or lessen the impact of stressful events on an individual. While social support can act like a buffer and activate the social reward system positively, social support as a reward may be processed differently through different developmental times from childhood through adolescence into adulthood. Our goal it is to examine the personality trait (openness, conscientiousness, extraversion, agreeableness, neuroticism) of the subject prior to being tested by social separation and how this could influence their response to social rewards. Our social separation test uses olfactory stimulus as a social reward to activate the reward system. Marmosets are highly sensitive to olfactory communication and the olfactory system is directly tied to the reward system of the brain. Our test was designed for testing marmosets from early age into adulthood. We started with 6-month-old marmosets (equivalent to a 5-6-year-old human child), removing them from their families and isolating them in a separate room in a small plexiglass box where we can record their behaviors and collect urine for hormones: cortisol reaction to the social isolation and removal from family, and oxytocin for social reward processing to negate the effects of the isolation stress.



## **Grants Received:**

NIH R01HD086057 – Dietary fat ratio's influence on adolescent depression: A nonhuman primate model.

## **National Presentations:**

Oral presentation: The 42nd Meeting of the American Society of Primatologists Scientific Program, Neuroendocrine and behavioral responses to a social separation test in juvenile marmosets, 2019, Madison-WI.