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EFFECTS OF SEX STEROIDS ON COGNITION AND EMOTION IN MALE AND FEMALE MACAQUES

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Studies in female nonhuman primates have greatly advanced our understanding of women's cognitive health across the lifespan, but parallel studies in male nonhuman primates have been critically lacking. This talk will describe two studies investigating the activational effects of testosterone on cognition and emotion in young adult male rhesus monkeys. Preliminary data from ongoing studies in aged males will also be presented. Monkeys were chemically castrated with a gonadotropin-releasing hormone agonist and treated with testosterone enanthate or placebo at monthly intervals. Cognition and emotional reactivity were assessed before and during each treatment period. The results suggest that androgens have only modest effects on cognitive function, but significantly affect several dimensions of emotion. These findings will be compared to prior results in young and aged female rhesus monkeys and discussed in the context of hormonal replacement therapy for cognitive and emotional health in humans.

Keywords: Hormone replacement therapy, testosterone, memory, rhesus monkey