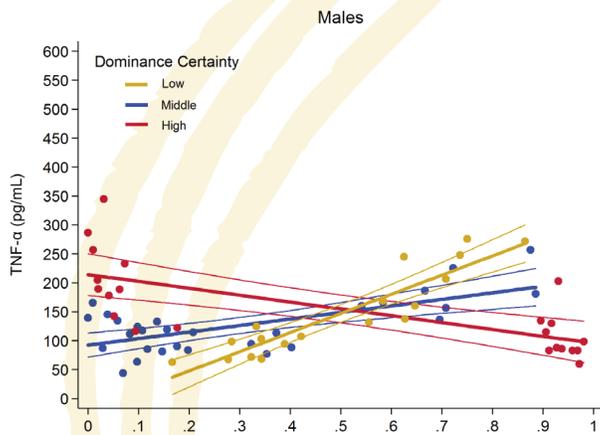


BRENDA McCOWAN, PhD

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Social Networks, Health and Welfare

My research investigates how social networks influence the content and quality of relationships and multiple health outcomes. My work applies social network theory to practical applications in the health and welfare of both captive and wild primates. My goal is to further understand patterns of health and well-being within primate societies that represent emergent patterns whose underlying dynamics must be understood to better tackle complex health issues. To accomplish this, my lab employs an interdisciplinary team of researchers engaged in highly computational behavioral biology, which allows us to investigate network relationships at the individual, family, group, and population levels.



Social status has been associated with health in humans and animals, but status is usually measured as a simple ordered rank of individuals. My research, however, demonstrates that rank alone is not sufficient to explain health disparities. Certainty about one's status can affect the relationship between status and health. Specifically, for monkeys with very certain positions in the dominance hierarchy, low status individuals show a potentially risky health profile. In contrast, when a monkey's position is less certain this pattern reverses and it is the high status individuals that show a potentially risky health profile.

My computational network approach used on large outdoor social groups of nonhuman primates promises a broad translational tool that is not only relevant but highly realistic for modeling individual, family, and group health at specific life stages across the lifespan in human populations.

Connections matter: social networks and lifespan health in primate translational models.

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