**Physiological underpinnings of intergroup competition in male bonobos**

Leveda Cheng

Department of Human Evolutionary Biology, Harvard University

**Abstract:**

In many group-living species, males have strong cooperative relationships within group, but hostile relationships between groups. However, maintaining friendly relationships with neighbouring groups can bring benefits including resource sharing and information transfer. Bonobos are one of the few species in which individuals show variation in their response to neighbouring groups. Although intergroup encounters are relatively peaceful, male can be aggressive towards out-group individuals. However, the adaptive functions and biological underpinnings of male intergroup aggression are still unclear to date. Cortisol and testosterone are both steroid hormones that are highly conserved across vertebrates and are often secreted during competitive situations. For my PhD, I study how these two hormones and aggression varied in relation to intergroup encounters in male bonobos to gain insights into the ultimate functions of male intergroup aggression in this species. By combining behavioural and endocrinological data collected from two neighbouring groups at the Kokolopori Bonobo Reserve in the Democratic Republic of Congo, I investigated whether, and how competition was manifested between groups. In this talk, I will present results on the form and target of male aggression during intergroup situations. I will also discuss the role of cortisol and testosterone in shaping male relationships with their