**Title: Diverse ways to think about cancer**

**Subtitle: What can we learn about cancer by studying it across the tree of life? What can being ‘cancer-aware’ teach us about the evolution of biodiversity?**

**Abstract:**

When asked about cancer, most would first think of it as a devastating disease. Some might add that lifestyle (e.g. smoking) or environmental pollution has something to do with it, but also that it tends to occur in old people. Cancer is indeed one of the most common causes of death in humans and its incidence increases with age. Yet, focusing on our own species, we tend to overlook something very elementary: cancer is not unique to humans. In fact, it is a phenomenon that unifies diverse branches of the tree of life. Exploring how different organisms cope with it can lend us novel insights on cancer. In turn, by acknowledging cancer as a selective pressure, we can better understand the evolution of biodiversity that surrounds us.

**Keywords:** *cancer, Peto’s paradox, life history, multicellularity, ageing*

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