

**Title:** Evolution of endocrine traits in an urbanizing world

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**Abstract**

Urbanization is one of the most prevailing forms of habitat change, causing biodiversity loss through local extinction processes. Nevertheless, species and even individuals vary in their response to these drastic changes, with some unable to occupy these new habitats while others persist and thrive. I use natural and laboratory experiments to test how, and at what rate, hormonally regulated traits enable organismal adaptation to changing environments. In this talk, I will disentangle the contribution of genetic, plastic, and transgenerational effects to variation in the glucocorticoid phenotype. I will first discuss how endocrine phenotypes differ between urban and rural populations, especially in response to noise and light pollution. Then I will discuss how these phenotypes arise during development and whether hormonal plasticity has a functional significance. I will elucidate how the environment shapes endocrine phenotypes in a world that is increasingly experiencing the stress of urbanization.

