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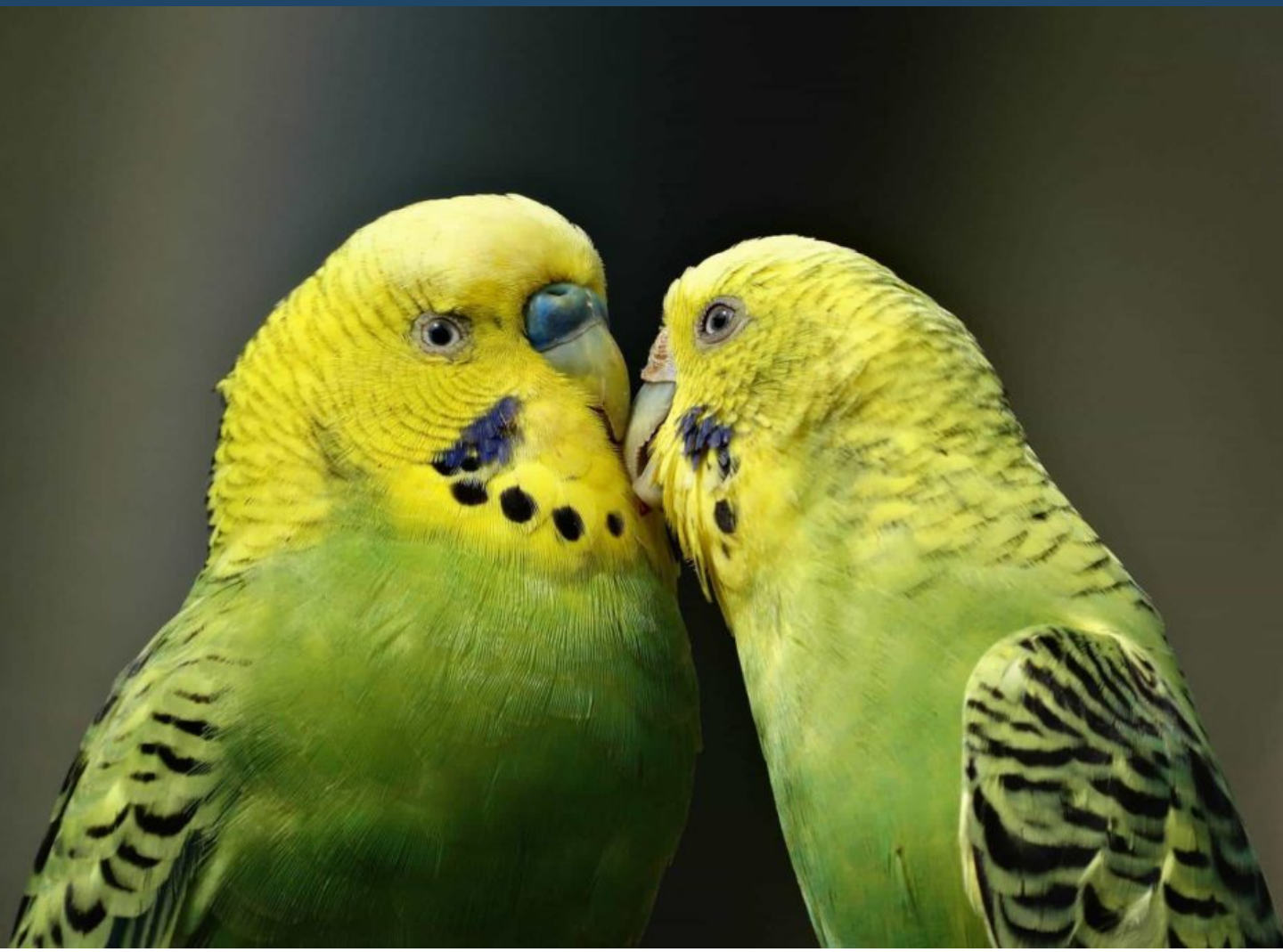
# TIMOTHY F. WRIGHT, PhD
# BABEL'S BIRDS: FUNCTIONS AND MECHANISMS OF VOCAL PLASTICITY IN PARROTS

Thursday, 05.03.2020, 12:30
at VetMedUni, Lecture Hall D



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# TIMOTHY F. WRIGHT, PhD
# BABEL‘S BIRDS: FUNCTIONS AND MECHANISMS OF VOCAL PLASTICITY IN PARROTS

Vocal learning allows individuals to modify their communication signals based on social experience. As a specialized form of behavioral plasticity, vocal learning provides a rich model for understanding how genetic background, neural substrate, and environmental factors interact to shape behavior. My lab focuses on vocal learning in the parrots, a group of birds known not only their extensive mimicry abilities but also diverse signal repertoires, complex social organization, large brains and long lifespan. In this talk I will present the results of field and lab-based studies aimed at understanding both the function and underlying neurogenetic mechanisms of vocal plasticity in parrots

**Timothy F. Wright** is broadly interested in the evolution of vocal learning and communication signals. Much of his work has focused on the parrots because of their well-developed learning abilities and the interesting contrasts they pose in behavior, ecology, and life history patterns to the better-known songbirds. Early work focused on describing vocal repertoires in selected parrot species and investigating patterns of geographic variation known as vocal dialects. Of particular interest was the contrast between patterns of vocal variation among populations, driven by cultural evolution, and patterns of genetic variation.

This work has included fieldwork on the yellow-naped amazon in Costa Rica and the thick-billed parrot Mexico. In the last five years he has taken a broader, comparative approach that includes extensive molecular work on the evolutionary relationships among parrots and the use of the resulting phylogenies to investigate questions regarding life history, longevity, and mitochondrial genome evolution. Most recently, he has begun a collaborative project to examine the neural and endocrine mechanisms underlying vocal learning in adult and juvenile captive budgerigars. Finally, the serious conservation issues faced by parrots inform much of the work he does; his conservation actions include coordinating a multi-year education programs in Costa Rica, conducting surveys of genetic and vocal diversity of the endangered thick-billed parrot of Mexico, investigating patterns of invasion in the monk parakeet, and engaging in public outreach and education.