

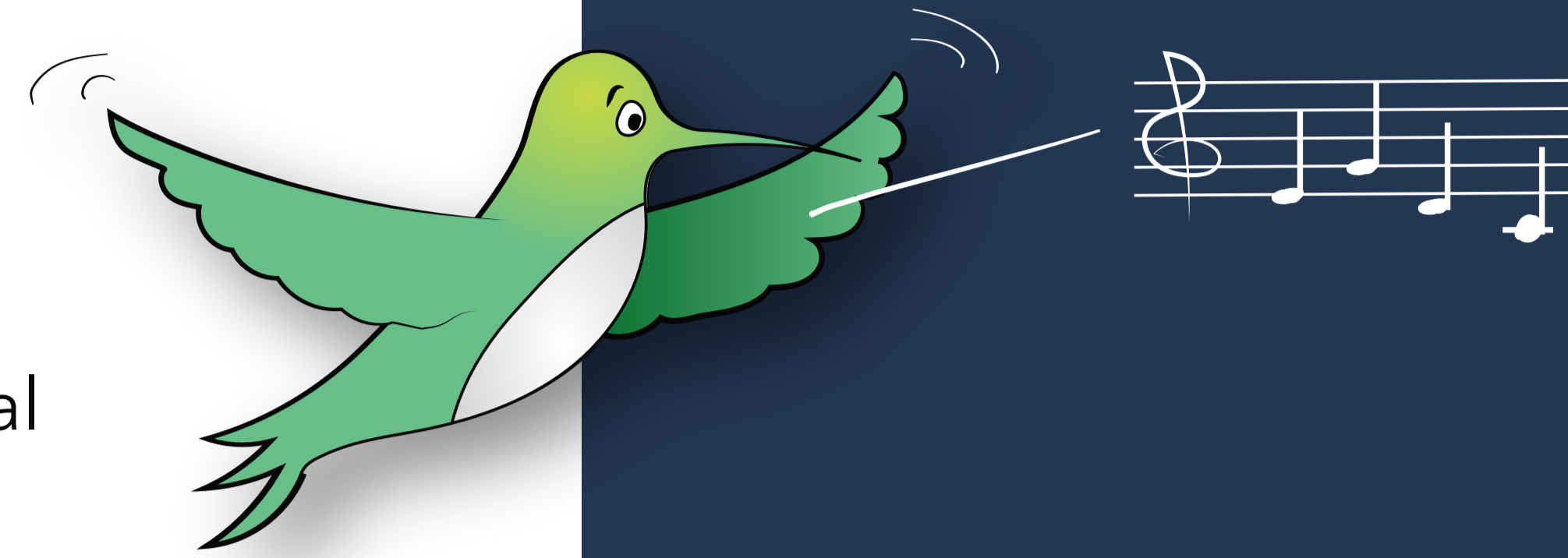
Gold-Standard Reference Genomes Accelerate Science

Explore how high-quality genomes contribute to these critical scientific endeavors

DISCOVER BETTER BIOLOGY

Complete reference genomes provide accurate foundations for research

New reference assemblies for hummingbird and zebra finch resolve genes important for understanding vocal learning that are missing or not fully represented in previous assemblies.



UNDERSTAND EVOLUTION

High-resolution assemblies reveal ancient connections among and between species

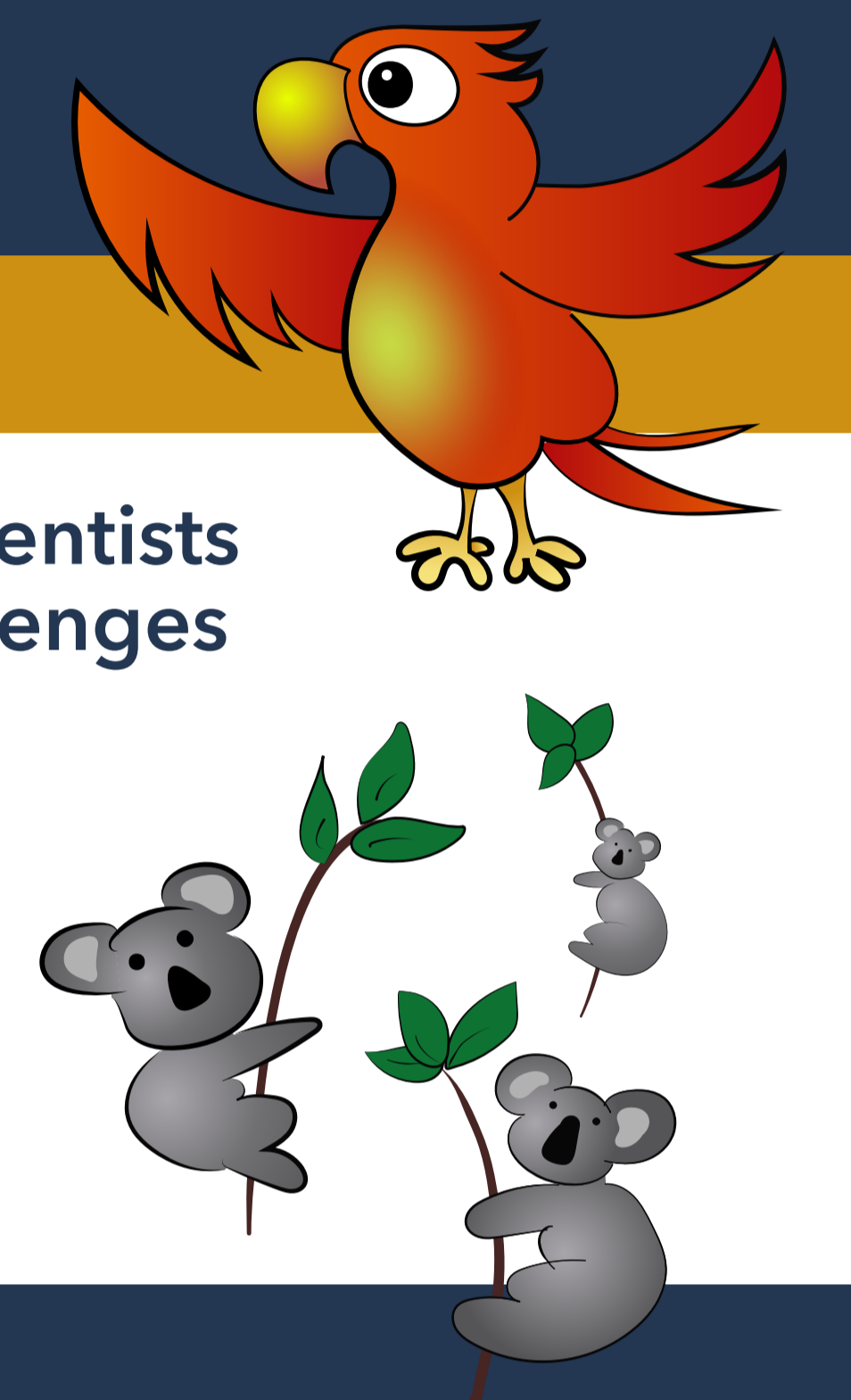
Great ape reference genomes improve sequence contiguity by orders of magnitude and pinpoint human-specific structural variants with potential functional effects on brain development.



RESCUE AT-RISK SPECIES

Comprehensive genomes help scientists address emerging biological challenges

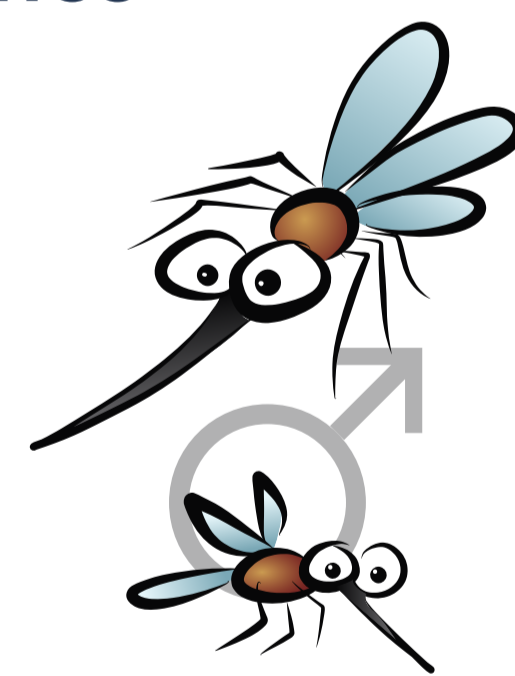
Recent koala, 'alalā, and kākāpō genomes reveal information conservation experts can use to fight the diseases and fertility problems threatening to wipe out these species.



IMPROVE HUMAN HEALTH

Accurate genomes enable novel approaches to control disease transmission

The new mosquito reference genome is helping scientists fight the spread of Zika virus by rendering male mosquitos harmless, a tactic made possible by now knowing the structure of the elusive sex-determining "M" locus.



SECURE THE FOOD SUPPLY

Phased genomes promote productivity in changing environments

Scientists are using new haplotype-resolved reference genomes for cattle and the Cabernet Sauvignon grape to identify loci associated with heat, humidity, and pathogen resistance.



PacBio® Sequencing is the gold standard for generating reference-grade assemblies

INFORM PHARMACEUTICAL DEVELOPMENT

High-quality genome assemblies further drug discovery

The magic mushroom reference genome is helping scientists produce a synthetic, medical-grade version of the mushroom's psychotropic compound.

