



Contents

TOPIC INTRODUCTIONS

Uses and Opportunities for Ethyl Methanesulfonate Mutagenesis in Maize

Rajdeep S. Khangura, Norman B. Best, and Brian P. Dilkes

Cold Spring Harb Protoc; 2026; 10.1101/pdb.top108504

Anolis Lizards as a Model System for Studies of Gene Function in Reptile Development and Evolution

Christina E. Sabin, James D. Lauderdale, and Douglas B. Menke

Cold Spring Harb Protoc; 2026; 10.1101/pdb.top108535

PROTOCOLS

Ethyl Methanesulfonate Treatment of Maize Seed for Recovery of Vegetative Mutant Sectors and Segregating Germinal Mutations

Rajdeep S. Khangura, Norman B. Best, and Brian P. Dilkes

Cold Spring Harb Protoc; 2026; 10.1101/pdb.prot108650

Ethyl Methanesulfonate Treatment of Maize Pollen for Development of Segregating Mutant Populations or Targeted Mutagenesis

Rajdeep S. Khangura, Norman B. Best, and Brian P. Dilkes

Cold Spring Harb Protoc; 2026; 10.1101/pdb.prot108651

A Surgical Method for Oocyte Injection and CRISPR–Cas9 Mutagenesis in *Anolis* Lizards

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Cover Illustration: The Squamata—the reptile group comprising lizards and snakes—includes more than 11,000 described species. Among them, *Anolis* lizards are an ecologically diverse group that has been the subject of wide-ranging biological studies, from speciation and convergent evolution to climate adaptation and tail regeneration. Functional genetic analyses of these phenomena, however, have remained limited, hindering not only our ability to investigate the molecular mechanisms underlying these processes but also comparative analyses of gene function across vertebrates. This limitation stems largely from issues related to the reproductive biology of these reptiles, which makes the isolation of fertilized oocytes or single-celled embryos for gene-editing approaches impractical for most species. To overcome these challenges, Sabin et al. describe a surgical approach in the brown anole *Anolis sagrei* that enables microinjection of CRISPR–Cas9 ribonucleoprotein complexes into unfertilized oocytes while they are still maturing within the ovary, which allows for the routine production of gene-edited lizards (doi:10.1101/pdb.prot108652). The cover image depicts an artistic rendition of hatchling *Anolis sagrei* lizards; from left to right, the animals shown are *ttec*^{-/-}, wild type, and *tyr*^{-/-}. Image by Olivia Martin.

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