



# Key Publications: Mutagenesis

## TwinStrand Duplex Sequencing™ Technology

Duplex sequencing identifies genomic features that determine susceptibility to benzo(a)pyrene-induced *in vivo* mutations

BMC Genomics - 2022 | DOI: 10.1186/s12864-022-08752-w | Danielle P. M. LeBlanc, Matthew Meier, Fang Yin Lo, Elizabeth Schmidt, et al.

Genetic toxicity testing using human *in vitro* organotypic airway cultures

Environmental and Molecular Mutagenesis - 2021 | DOI: 10.1002/em.22444 | Yiyang Wang, Roberta A. Mittelstaedt, Rebecca Wynne, Ying Chen, et al.

Direct quantification of *in vivo* mutagenesis and carcinogenesis using duplex sequencing

PNAS - 2020 | DOI: 10.1073/pnas.2013724117 | Charles C. Valentine III, Robert R. Young, Mark R. Fielden, et al.

Next-Generation Genotoxicology: Using modern sequencing technologies to assess somatic mutagenesis and cancer risk

Environmental and Molecular Mutagenesis - 2019 | DOI: 10.1002/em.22342 | Jesse J. Salk and Scott R. Kennedy

Mitochondrially-targeted APOBEC1 is a potent mtDNA mutator affecting mitochondrial function and organismal fitness in *drosophila*

Nature Communication - 2019 | DOI: 10.1002/em.22342 | Jesse J. Salk and Scott R. Kennedy

Deleterious mitochondrial DNA point mutations are overrepresented in *drosophila* expressing a proofreading-defective DNA polymerase  $\gamma$

PLoS Genetics - 2018 | DOI: 10.1371/journal.pgen.1007805 | Colby L. Samstag and Jake G. Hoekstra, et al.

Mutational spectra of aflatoxin B1 *in vivo* establish biomarkers of exposure for human hepatocellular carcinoma

PNAS - 2017 | DOI: 10.1073/pnas.1700759114 | Supawadee Chawanthayatham and Charles C. Valentine III, et al.

Detection of ultra-rare mitochondrial mutations in breast stem cells by duplex sequencing

PLoS One - 2015 | DOI: 10.1371/journal.pone.0136216 | Eun Hyun Ahn and Kensen Hirohata, et al.

Endogenous parkin preserves dopaminergic substantia nigral neurons following mitochondrial DNA mutagenic stress

Neuron - 2015 | DOI: 10.1016/j.neuron.2015.06.034 | Alicia M. Pickrell and Chiu-Hui Huang, et al.

Ultra-sensitive sequencing reveals an age-related increase in somatic mitochondrial mutations that are inconsistent with oxidative damage

PLoS Genetics - 2013 | DOI: 10.1371/journal.pgen.1003794 | Scott R. Kennedy and Jesse J. Salk, et al.