



Accelerating forensics discovery with myBaits® targeted NGS

The tremendous scope of next-generation sequencing (NGS) offers the power to reconstruct genomic sequences from millions of compromised DNA molecules present in historic and forensic samples. However, for many such samples, the relevant molecules of interest are so rare that total DNA sequencing is too expensive to perform and too data intensive to analyze. With dedicated probe design algorithms and optimized lab protocols appropriate for highly damaged and degraded DNA molecules, myBaits targeted NGS kits can greatly increase the power and efficiency of forensics research on both mitochondrial and nuclear DNA.

Cady, J., and E.M. Greytak. (2022). Whole-Genome Sequencing of Degraded DNA for Investigative Genetic Genealogy. *Forensic Science International: Genetics Supplement Series.*

Emery, M.V. *et al.* (2021). Whole Mitochondrial Genomes Assembled from Thermally Altered Forensic Bones and Teeth. *Forensic Science International: Genetics.*

Gorden, E.M. *et al.* (2022). Extended Kinship Analysis of Historical Remains Using SNP Capture. *Forensic Science International: Genetics.*

Gorden, E.M., K. Sturk-Andreaggi, and C. Marshall. (2021). **Capture Enrichment and Massively Parallel Sequencing for Human Identification**. *Forensic Science International: Genetics.*

Gorden, E.M., K. Sturk-Andreaggi, and C. Marshall. (2018). **Repair** of DNA Damage Caused by Cytosine Deamination in Mitochondrial DNA of Forensic Case Samples. *Forensic Science International: Genetics.*

Juras, A., *et al.* (2017). Investigating Kinship of Neolithic Post-LBK Human Remains from Krusza Zamkowa, Poland Using Ancient DNA. *Forensic Science International: Genetics.*

Lewis, E.J., *et al.* (2022). **Nuclear DNA SNP Profiles Derived** from Human Hair Shaft. *Forensic Science International: Genetics Supplement Series.*

Loreille, O., *et al.* (2018). Biological Sexing of a 4000-Year-Old Egyptian Mummy Head to Assess the Potential of Nuclear DNA Recovery from the Most Damaged and Limited Forensic Specimens. *Genes.* Marshall, C., *et al.* (2017). **Performance Evaluation of a Mitogenome Capture and Illumina Sequencing Protocol Using Non-Probative, Case-Type Skeletal Samples: Implications for the Use of a Positive Control in a next-Generation Sequencing Procedure**. *Forensic Science International: Genetics.*

Marshall, C. *et al.* (2020). A Forensic Genomics Approach for the Identification of Sister Marija Crucifiksa Kozuli. *Genes.*

Scheible, M.K.R., *et al.* (2021). Using Hybridization Capture to Obtain Mitochondrial Genomes from Forensically Relevant North American Canids: Assessing Sequence Variation for Species Identification. *Forensic Science International: Animals and Environments.*

Thomas, J.T., *et al.* (2023). Evaluating the Usefulness of Human DNA Quantification to Predict DNA Profiling Success of Historical Bone Samples. *Genes.*

Tillmar, A., *et al.* (2021). The FORCE Panel: An All-in-One SNP Marker Set for Confirming Investigative Genetic Genealogy Leads and for General Forensic Applications. *Genes.*

Wurst, C., *et al.* (2022). The Lady from Basel's Barfüsserkirche – Molecular Confirmation of the Mummy's Identity through Mitochondrial DNA of Living Relatives Spanning 22 Generations. *Forensic Science International: Genetics.*

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