

STR & SNP DNA

Traditional Forensic DNA vs. FIGG vs. Family History Testers

Although both STR and SNP testing give DNA results, they are VERY different. They use different tests and testing equipment, render different results with different statistics and use different databases for comparison purposes.

	STR (Short Tandem Repeat)	SNP (Single Nucleotide Polymorphism)	
	TRADITIONAL FORENSIC DNA	FORENSIC INVESTIGATIVE GENETIC GENEALOGY	FAMILY HISTORY TESTERS AND ADOPTEES, ETC. (NOT LE CASES)
NUMBER OF MARKERS	8-27 (thresholds vary)	400,000-600,000 average (Whole Genome Sequencing and Microarray)	600,000+ (Microarray consumer tests advertised widely)
WHY/HOW IT WORKS	Each marker is highly informative	DNA is passed down in segments that cousins share with each other	
RELATIVE DETECTION LEVEL	Exact person match, parent/child/possibly siblings/niblings	Out to 5th cousins and beyond	
AUTHORIZED DATABASES	CODIS (Government)	GEDmatch, FTDNA, DNA Justice	AncestryDNA, 23andMe, MyHeritage, Living DNA, FamilyTreeDNA, GEDmatch
PURPOSE	Identify unknown STR DNA profile by self, or immediate family match	Tree building to find common ancestor of SNP DNA profile and DNA relatives; research DNA family to find candidate / investigative lead to provide to agency	Find or verify biological lines for family history purposes; connect with cousins
NOTE	Also used for identity confirmation for forensic cases, including FIGG leads	Investigating agency to confirm, or rule out, investigative leads, or arrange family reference testing to assist genealogist	Fast growing hobby with over 25 million DNA testers; some upload results to GEDmatch and/or FTDNA to compare with other cousins or assist FIGG projects