COLD CASES SOLVED

The identification of the mother of Lisa Jensen, by Barbara and her group, abducted in infancy and then abandoned by her abductor as a 5-year-old, led to identifying a suspect for the murder of the Allenstown Four in Allenstown, NH. Barbara and Junel Davidsen subsequently determined the true identity of Lisa's abductor, a man of many aliases, as Terry Peder Rasmussen. Barbara has also confirmed the identities of three of the four Allenstown victims using a DNA profile obtained from nuclear DNA extracted from rootless hair.

Using the same technique as she used to identify Lisa and Rasmussen, Barbara assisted the FBI in identifying Joseph James DeAngelo as the notorious Golden State Killer. The technique Barbara used in these three cases, dubbed "Investigative Genetic Genealogy" is now being used to solve many previously "unsolvable" cold cases. **https://bit.ly/BRV-NYTimes**

Barbara and her Group have now assisted in solving over 50 cold cases.

For her work, Barbara was recognized by the journal *Nature* as one of "10 People Who Mattered In Science In 2018." **https://bit.ly/BRV-Nature**

She has also been recognized as one of *Time Magazine's* "TIME100 Most Influential People of 2019." **https://bit.ly/BRV-Time**

Barbara Is a retired intellectual property attorney who specialized in the patenting of biotechnology inventions. She earned a J.D. from the University of Texas at Austin Law School and prior to attending law school, was an assistant professor at the University of Texas Medical Branch at Galveston. She taught Endocrinology and Biochemistry in the medical school. She is a coauthor on several scientific papers in the field of cancer research. She earned a B.A. with a double major in Psychology and Biochemistry and a Ph.D. in Biology at the University of California at San Diego.

Barbara is the Director of Investigative Genetic Genealogy at Gene by Gene, the parent company of FamilyTreeDNA.

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Barbara Rae-Venter's

Firebird Forensics Group

COLD CASES SOLVED

Have DNA evidence but no hits in CODIS? Firebird Forensics Group can help you identify suspects in violent crimes and identify unidentified human remains using Investigative Genetic Genealogy (IGG).

HELP IDENTIFY THE SUSPECT - UPLOAD TO GEDMATCH AND FAMILYTREEDNA!

PERCENTAGE SHARED AUTOSOMAL DNA

COMMON ANCESTOR	CHILD	GRANDCHILD	GREAT GRANDCHILD	2ND GREAT GRANDCHILD
CHILD	**SIBLING 50%**	NIECE/NEPHEW 25%	GRAND NIECE/NEPHEW 12.5%	GREAT GRAND NIECE/NEPHEW 6.25%
GRANDCHILD	NIECE/NEPHEW 25%	**1ST COUSIN 12.5%**	1ST COUSIN 1X REMOVED 6.25%	1ST COUSIN 2X REMOVED 3.125%
GREAT GRANDCHILD	GRAND NIECE/NEPHEW 12.5%	1ST COUSIN 1X REMOVED 6.25%	**2ND COUSIN 3.125%**	2ND COUSIN 1X REMOVED 1.563%
2ND GREAT GRANDCHILD	GREAT GRAND NIECE/NEPHEW 6.25%	1ST COUSIN 2X REMOVED 3.125%	2ND COUSIN 1X REMOVED 1.563%	**3RD COUSIN 0.781%**

INVESTIGATIVE GENETIC GENEALOGY

Genetic Genealogy (GG) is the use of DNA testing to confirm, augment, or refute the results of traditional family history research; Investigative Genetic Genealogy (IGG) is the application of GG to solving violent crimes and identifying unidentified human remains (UHR). IGG is also called Forensic Genealogy.

Human beings have 23 pairs of chromosomes, which are found in the nucleus of our cells and carry our genes, and thus our genetic information. One of these 23 pairs is referred to as our sex chromosomes—females have two X chromosomes in their cells, and males have one X and one Y chromosome. The other 22 pairs, numbered 1 through 22, from the largest to the smallest chromosome, are referred to as autosomes.

Between 700K and 800K SNPs (single nucleotide polymorphism, pronounced “snips”) are compared by a matching algorithm on FTDNA or GEDmatch to identify people who share DNA with a forensic sample.

The Y chromosome is passed down from father to son to his son virtually unchanged. Y DNA can be used to trace the direct male line. In our culture, this typically coincides with the family surname. Forensic cases can sometimes provide information on the surname of a suspect or UHR.

Sources of DNA for IGG:
biological fluids (semen, blood, saliva)
hair (including rootless hair)
bones and teeth (for UHR)

Databases for upload of forensic samples:

- FamilyTreeDNA (requires permission from Gene by Gene on a case by case basis)
- GEDmatch Pro

IGG Services:
You can contract for IGG services with Barbara Rae-Venter/Firebird Forensics either through Gene by Gene or directly with Firebird Forensics; the cost is the same. Fees for law enforcement (LE) are capped at $4000.00 with the exception of NCMEC cases capped at $1000.00. Firebird Forensics Group, Inc. (501(c)(3) status pending) is soliciting donations in order to provide LE access to IGG services, including obtaining a DNA profile for upload to FTDNA and GEDmatch should they not have the budget for IGG. Contact Barbara Rae-Venter for details.

Useful Links

GEDmatch.com - Upload forensic raw DNA data. Matching algorithm identifies people in the database who share DNA with the forensic file. Cost: $550.

FamilyTreeDNA.com - Autosomal and Y DNA testing for forensic cases.

DNAPainter.com - Tools for working with IGG data.

HELP IDENTIFY THE SUSPECT - UPLOAD TO GEDMATCH AND FAMILYTREEDNA!