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DEPARTMENT OF FORENSIC BIOLOGY

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February 6, 2001

DEPARTMENT OF FORENSIC BIOLOGY

LABORATORY REPORT

VICTIM: Johanna Vega

LAB NO: FB99-1904

AUTOPSY: Prial, 8/19/99

M.E. NUMBER: Bx99-02858

PRECINCT:046

COMPLAINT NO:11168

ADDITIONAL REPORT

This is an additional report. For previous results, evidence received, and disposition, see report dated December 1, 1999.

SUMMARY OF RESULTS:

Human blood was found on the white comforter and the yellow pattern comforter.

PCR DNA testing on the white comforter and the yellow pattern comforter indicate the bloodstains could have come from the victim, Johanna Vega. This combination of DNA alleles would be expected to be found in approximately:

4 loci match

1 in 140,000 Blacks**

1 in 33,000 Caucasians

1 in 17,000 Hispanics

1 in 180,000 Asians

** OCME STR database, National Research Council (1996) *The Evaluation of Forensic DNA Evidence*, Natl. Acad. Press, Washington DC.

EXAMINATIONS:

Blood and other physiological fluids and tissues contain polymorphic ("many forms") genetic markers which can differ from person to person. These genetic markers are inherited, that is, pass from generation to generation and can be used to compare biological samples from different sources. Genetic markers occur because of changes (mutations) that occur in a person's hereditary material, DNA (Deoxyribonucleic Acid).

Alternative forms of DNA are called alleles; they are found at the same location of the DNA (locus, plural loci) on homologous (matching) chromosomes. An individual can have a maximum of two different alleles at a particular locus, one on each homologous chromosome. A group of two alleles from the same locus constitutes a type.

Several different loci may be analyzed simultaneously using a technique known as the polymerase chain reaction (PCR). This technique allows small amounts of DNA to be amplified; after amplification, the alleles present in the sample are identified.

The loci tested may include the short tandem repeat (STR) loci (VWA, TH01, F13A1, FES/FPS, D3S1358, FGA, D8S1179, D21S11, D18S51, D5S818, D13S317, D7S820, TPOX, CSF1PO, D16S539). The STR loci exhibit length polymorphisms which are variations in the number of core repeats, which are 4 base pairs in length. STR alleles are named according to the number of core repeats present at the locus. Each locus has between 8 and 32 identifiable alleles.

Locus	Chromosome	Alleles	Types
VWA	12	10, 11, 12, 13, 14, 15, 15.2, 16, 17, 18, 19, 20, 21, 22	105
TH01	11	4, 5, 6, 7, 8, 8.3, 9, 9.3, 10, 11	55
F13A1	6	3.2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17	120
FES/FPS	15	7, 8, 9, 10, 11, 12, 13, 14, 15	45
TPOX	2	6, 7, 8, 9, 10, 11, 12, 13	36
CSF1PO	5	6, 7, 8, 9, 10, 11, 12, 13, 14, 15	55
D3S1358	3	9, 10, 11, 12, 13, 14, 15, 15.2, 16, 17, 18, 19, 20	91
D7S820	7	6, 6.3, 7, 8, 9, 10, 11, 12, 13, 14, 15	66
D16S539	16	5, 6, 9, 10, 11, 12, 13, 14, 15	45

Allelic typing was done with the following results.

ITEM	AmeI	D3S1338	DI6S539	TPOX	CSF1PO	D7S820	VWA	F13A1	TH01	FES
(V) J. Vega	X	16, 18	10, 11	9, 11	11, 12	10, 12	16, 17	3, 2, 5	6, 9, 3/10	12
piece of carpet obtained from "bedroom #1"										
stain 1-A	X	16, 18	10, 11	9, 11	11, 12	10, 12	16, 17	3, 2, 5	6, 9, 3/10	12
stain 1-C	*	*	*	*	*	*	16, 17	3, 2, 5	6, 9, 3/10	12
hair comb/brush										
stain 2A2	*	*	*	*	*	*	NEG	NEG	6**	12
stain 2A4	*	*	*	*	*	*	16, 17	3, 2, 5	6, 9, 3/10	12
slower pattern comb/brush										
stain 2B3	*	*	*	*	*	*	16, 17	3, 2, 5	6, 9, 3/10	12
stain 2B5	*	*	*	*	*	*	16, 17	3, 2, 5	6, 9, 3/10	12

* Typing not attempted
 * No alleles detected

* Additional peaks were detected which did not meet laboratory criteria for allele identification; therefore, these additional peaks are not reported.

of the DNA alleles found on the bloodstains from the piece of carpet, the white comb/brush and the yellow pattern comb/brush are the same as the DNA alleles of the victim, Johanna Vega. Therefore, she could be the source of these bloodstains.

EVIDENCE RECEIVED:

ITEM	VOUCHER	DATE REC'D	DESCRIPTION
1	H975783	09/02/00	pillow, multi-color, floral design (not received)
2A	"		white comforter
2B	"		yellow pattern comforter
2C	"		possible hairs found on the white comforter
2D	"		possible hairs found on the yellow pattern comforter

DISPOSITION:

The following items will be retained in the laboratory:

stains and controls taken from the white comforter and the yellow pattern comforter
 DNA extracts for all samples and controls tested
 possible hairs found on the white comforter and the yellow pattern comforter

The remainder of the evidence has been returned to the OCME Evidence Unit.

Analyst: _____


 Samia Bailloua

Criminalist IV

Supervisor: _____


 Mechthild Prinz, Ph.D.
 Assistant Director

SME: