

MOD-83-00028-A


## Supplementary Witness Statement

(C.J. Act 1967, s. 9 MC Act 1980, ss 5A (3a) and 5B, MC Rules 1981, r. 70)

**Statement of** Matthew James GREENHALGH BSC. (Hons)  
**Age of Witness** Over 18  
**Occupation** Forensic Scientist  
*with*  
Orchid Biosciences Europe Ltd. (Cellmark)  
Culham Science Centre, Abingdon, Oxfordshire OX14 3DB

*This statement, consisting of 4 pages each signed by me, is true to the best of my knowledge and belief and I make it knowing that, if it is tendered in evidence, I shall be liable to prosecution if I have wilfully stated in it anything which I know to be false or do not believe to be true.*

Dated the 18th day of August 2005

Signature..... 

I have been requested to provide further details of my qualifications and experience and to comment on the apparent differences in the calculations presented in my statement of 30<sup>th</sup> June 2005 and those presented in Mr Larkin's statement of 1<sup>st</sup> July 2004.

### Qualifications and Experience

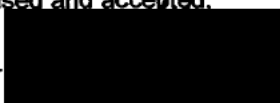
A summary of my career history is attached as Appendix 1.

**Case Reference Numbers:** FAL- 04965-03  
Royal Military Police Reference: 64658/03

### DNA calculation

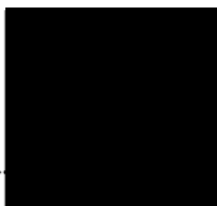
In his statement of 1<sup>st</sup> July 2004, Mr Larkin considered whether or not the blood on the rifle butt (S0042) could have originated from the offspring of Jusm IL MAHAMADAWI and Abdullah MANAA. The DNA results were entirely consistent with this scenario. At the request of Mr. Larkin I performed a calculation to express the significance of this result using DNA profile frequencies obtained from a database of Caucasian individuals and obtained a figure of 20 million.

I was later asked to report the results of the calculation myself in a statement. Following a discussion with Mr. Larkin it was decided that in the absence of a specific Database of Iraqi DNA profile frequencies it would be more appropriate to use databases from three major ethnic groups (Caucasian, Afro Caribbean and Asian) and to choose the most conservative value. This procedure is widely used and accepted.

Signature..... 

In my statement of the 30<sup>th</sup> June 2005 I reported a figure of 4 million. This was based on the most conservative value obtained using Caucasian, Afro Caribbean and Asian frequency databases.

Signature .....



Appendix [1]

# Matthew Greenhalgh

Director Forensic Science - Orchid Biosciences Europe Limited

**Qualifications** BSc (Hons) Biochemistry (1979). The University of Birmingham.

## CAREER HISTORY

1998 – Present **Director Forensic Science**, Orchid Biosciences Europe Limited. (Formerly known as Cellmark Diagnostics).

- Establishment of a new forensic DNA analysis unit
- Accreditation of the new unit as a supplier to the UK National DNA Database
- Represents Cellmark on the UK DNA Database Suppliers group
- Represents Cellmark on the UK DNA Database Operations Board.

1996 - 1997 **Forensic Scientist**, Forensic Science Service


- Attachment to the Service Development Group. Introduction and validation of automated DNA assay system for the STR unit.
- Project manager for the development and validation of STR Allele Designation software.
- Training of new STR unit staff and reporting officers
- Forensic Casework using the SGM DNA profiling system

1979 – 1996 **Forensic Scientist**, Metropolitan Police Forensic Science Laboratory

- Scientific Officer in the Biology Department. Promoted to Higher Scientific Officer in 1986 and to Senior Scientific Officer in 1988.
- Casework forensic blood grouping
- Training in general forensic biology techniques
- Appointed Court-going Reporting Officer (1984)
- Responsible for development and introduction of SLP technology to MPFSL (1987-88)
- Manager of the MPFSL DNA (SLP) unit (1988-92)
- MPFSL representative to the European DNA Profiling Group (EDNAP) 1983-93
- Secondment to Baylor College of Medicine, Houston, USA for PCR/STR experience and training (Oct-Dec 1992)
- Development work prior to the introduction of PCR at MPFSL and management of the unit when established
- Forensic casework, specialising in PCR and statistical issues

## PRESENTATIONS AND PUBLICATIONS

- International Society for Forensic Haemogenetics (ISFH)  
Copenhagen 1990,  
Mainz 1991,

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Venice 1993,

Santiago De Compostela 1995

- FBI DNA Symposium April 1993, Quantico, Virginia, USA
- "DNA Profiling in Forensic Science". Chapter in Molecular Biology and Biotechnology published by the Royal Society of Chemistry in 1993
- Publications of SLP and STR frequency data and STR forensic casework validation in Forensic Science International and the International Journal of Legal Medicine
- Evidence presented in court on many occasions from 1985 to present. (Including, Central Criminal Court – Old Bailey, Central Criminal Court – Dublin, Appeal Court & Crown Courts in London, Liverpool, Ashford and Harrow)

### PROFESSIONAL ACTIVITIES AND MEMBERSHIPS

- Editorial Board of the Forensic Science Society Journal (1997-2001)
- Lecturer on King's College MSc Course in Forensic Science (1996-1998)
- Member of the initial advisory group to the Council for the Registration of Forensic Practitioners.
- Forensic Science Society
- International Society for Forensic Genetics

Signature .....

