

# Ross Kwok

GENETICIST

Edinburgh, Scotland

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*I am a geneticist specialised in population genetics and genomic laboratory practices. I have recently completed my PhD studies in Forensic Science at Staffordshire University and I am due to graduate in July 2023. My research investigated the feasibility of acquiring DNA profiles from counterfeit currency. My previous and current degrees have provided me with significant experience in using equipment specific to DNA analysis including thermal cyclers and genetic analysers alongside various techniques in DNA extraction and genetic sample evaluation.*

## Education

### PhD in Forensic Science: Evaluating the Viability of Obtaining DNA Profiles from DNA Encapsulated Within the Layers of Counterfeit Banknotes

STAFFORDSHIRE UNIVERSITY

2019 → 2022

- Research Chapter 1: Evaluation of DNA in Counterfeit Banknotes.
- Research Chapter 2: Simulated Procedural Study to Evaluate the Presence of DNA in Composite Counterfeit Banknotes.
- Research Chapter 3: Genetic Evaluation of Counterfeit Banknotes.
- Skill Areas: DNA extraction, qPCR, DNA profiling and population genetics.

### MSc First Class in Forensic Science

UNIVERSITY OF STRATHCLYDE

2017 → 2018

- Skill Areas: crime scene analysis, handling of evidence, court procedure, application of chemical and biological based testing of evidence and genetic approaches of DNA evidence.
- Courses Taken: practical crime scene and court exercise, forensic biology, essentials of forensic science (theory and practical) and practical examinations.
- Masters Project: The Application of ISSR Primers to Identify Forensically Important Carrion Flies for The Estimation of Post-Mortem Intervals.

### MSc in Genetics

UNIVERSITY OF ABERDEEN

2016 → 2017

- Skill Areas: cell culture, extraction and analysis of RNA/DNA and statistical evaluation of genomic population dynamics.
- Courses Taken: bioinformatics, introductory immunology, genome-enabled medicine, mendelian genetics, applied statistics, and immunogenetics.
- Masters Project: Establishing the Phylogenetic Relationships of Birds: Integrating Conservation and Genetics.

### BSc (Hons) Upper Second Class in Zoology

UNIVERSITY OF ABERDEEN

2012 → 2016

- Skill Areas: DNA extraction and analysis, applied statistics, conservation and surveying techniques, experimental design and ecological modelling.
- Selection of Courses Taken: molecular ecology and evolution, ecological and environmental modelling, conservation in practice, wildlife conservation and management.
- Honours Project: Conservation Genetics in North Atlantic Porbeagle Sharks.

## Employment

### Sales Assistant

THE WORKS

Edinburgh, Scotland

May 2016 → September 2016

- Position focussed on customer service and relations.

### Volunteer

CHENGDU PANDA BREEDING RESEARCH BASE

Chengdu, China

31 June 2015 → 14 July 2015

- Husbandry and care for pandas as part of a conservation project.

### Volunteer

NATIONAL TRUST

Edinburgh, Scotland

8 April 2012 → 14 April 2012

- Assisted in the construction of a 'roundhouse'.

### Volunteer

OXFAM RECORD STORE

Edinburgh, Scotland

August 2012 → July 2016

- Sales assistant.

## Skillset

## Computer and Statistical software

WORD, EXCEL, RELATED MICROSOFT SOFTWARE, MINITAB AND SPSS

## Programming Languages

R, GIT AND MARKDOWN

## Genomic software

MRBAYES, DNASP, FINCHTV, CLC, FIGTREE, ARLEQUIN, CLUSTALX, PROSEQ, BLAST, FUNCASSOCIATE, MULTIARRAY VIEWER, GENEMAPPER

## Laboratory skills

POLYMERASE CHAIN REACTION TECHNIQUES (QPCR), DNA/RNA EXTRACTION (PHENOL CHLOROFORM, CHELEX RESIN, SILICA SPIN COLUMNS AND MAGNETIC BEAD EXTRACTIONS), GEL ELECTROPHORESIS, AGAROSE GEL DIGESTION, CAPILLARY ELECTROPHORESIS, PCR THERMOCYCLERS (BOTH FOR STANDARD PCR AND QPCR), FUME HOODS, GEL ELECTROPHORESIS EQUIPMENT, HEAT BLOCKS, QUBIT FLUOROMETER AND NANODROPS

## Forensic skills

GRIM, MSP, PLM, TLC, FINGERPRINT ANALYSIS, DNA PROFILING, BLOOD SPATTER AND PRESUMPTIVE AND CONFIRMATIVE BODY FLUID TESTING

## Languages

ENGLISH (FLUENT), CANTONESE (BASIC)

## Conferences

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### Guest speaker

*The Centre for Crime, Justice and Security, University of Staffordshire*

TITLE: AN EVALUATION OF TWO ADHESIVE MEDIA FOR THE RECOVERY OF DNA FROM LATENT FINGER-MARKS: A PRELIMINARY STUDY

2022

### Guest speaker

*The Centre for Crime, Justice and Security, University of Staffordshire*

TITLE: EVALUATING THE VIABILITY OF OBTAINING DNA PROFILES FROM DNA ENCAPSULATED WITHIN THE LAYERS OF COUNTERFEIT BANKNOTES

2022

### Poster Presenter

*The 28th International Congress of the International Society of Forensic Genetics, Prague*

TITLE: EVALUATING THE VIABILITY OF OBTAINING DNA PROFILES FROM DNA ENCAPSULATED WITHIN THE LAYERS OF COUNTERFEIT BANKNOTES

2019

## Publications

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### Evaluating the viability of obtaining DNA profiles from DNA encapsulated between the layers of composite counterfeit banknotes.

*Forensics Science International: Genetics Supplement Series, 7, pp. 438-440*

KWOK, R., KENNY, D. AND WILLIAMS, G.A.

2019

• <https://doi.org/10.1016/j.fsigs.2019.10.043>

### An evaluation of two adhesive media for the recovery of DNA from latent fingerprints: A preliminary study.

*Forensic Science International, [online] 344(4), 111574*

KWOK, R., PARSONS, R., FIELDHOUSE, S. AND WALTON-WILLIAMS, L.

2023

• <https://doi.org/10.1016/j.forsciint.2023.111574>

## Memberships

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### Chartered Society of Forensic Science

### International Society of Forensic Genetics