



the  
UNIVERSITY  
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GREENWICH

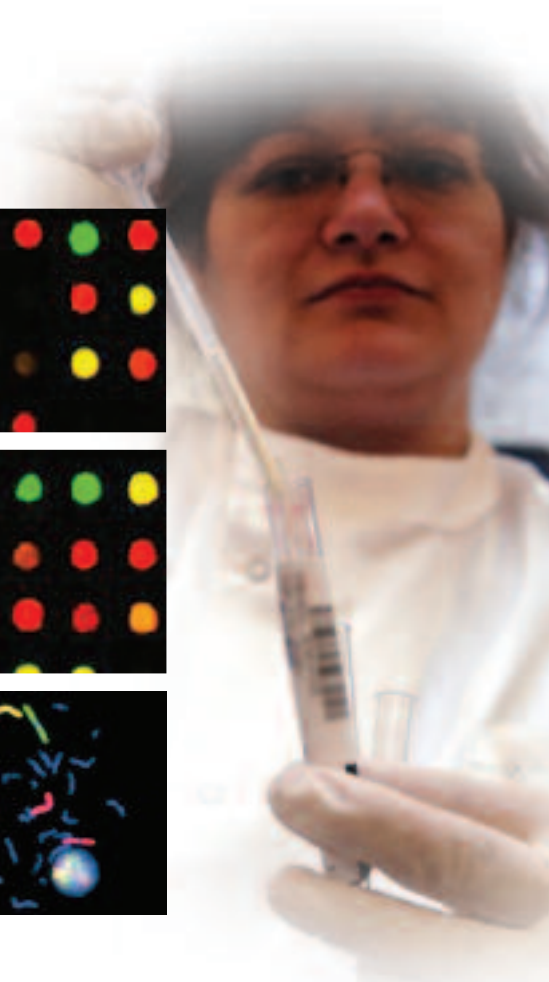
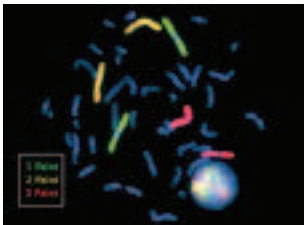
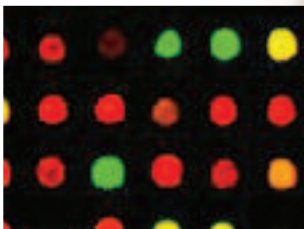
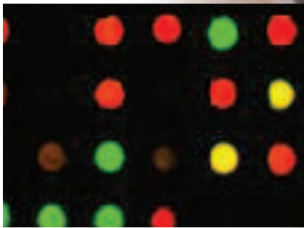


# Analysis of Nucleic Acids

Twelve-week course starting April and October

**BioMed Online Learning**

[www.greenwich.ac.uk/biomed](http://www.greenwich.ac.uk/biomed)



# Analysis of Nucleic Acids

## This course has been designed for:

- Biomedical scientists
- Clinical scientists
- Medical technical officers
- Healthcare scientists
- Nurses
- Pharmacists
- Doctors
- Allied health professionals

## When you have completed this course, you will be able to:

- Demonstrate a critical understanding of eukaryotic and prokaryotic mutation and their relevance to human health and disease
- Demonstrate an awareness of the methods of molecular biology
- Demonstrate a critical awareness of current methods for mutation detection and their applications
- Use the Internet as a communication tool as well as a tool to find and evaluate relevant information
- Produce reports to professional standards
- Produce materials for public presentations

## Course Content

The course comprises two components:

### *Two face-to-face workshops*

- Workshop 1: Introduction to WebCT, your tutor, and your course;
- Workshop 2: Course consolidation.

### *Guided online study of the following eight topics:*

- **Genomes** - bacterial, viral, mitochondrial and human genomes –the Human Genome Project
- **Mutations** –occurrence, mutation classes and types - DNA polymorphisms

- **Methods** - isolation of nucleic acids – cloning - restriction enzymes - Northern and Southern blotting – the labelling and use of probes to detect nucleic acids - RFLPs
- **PCR** – design of primers - the key role of PCR in the revolution in molecular genetics - PCR in biomedical science laboratories
- **Carrier identification** – specific genetic conditions and trisomy in amniotic fluid diagnosis
- **DNA sequencing** – use DNA databases to identify a DNA sequence - the role of DNA sequencing techniques in the understanding of gene structure
- **Techniques for mutation scanning** - differentiate between mutation scanning and mutation detection - principles of mutation scanning methods and their use
- **Techniques for the detection of specific mutations** - principles of mutation detection methods and their use

## Study where you want, when you want, supported online by a tutor

- Take an accredited short course
- Gain 30 credits at Master's level
- Gain 100 Continuing Professional Development credits for portfolio and registration
- Can be used towards an IBMS accredited MSc in Biomedical Science (Online)

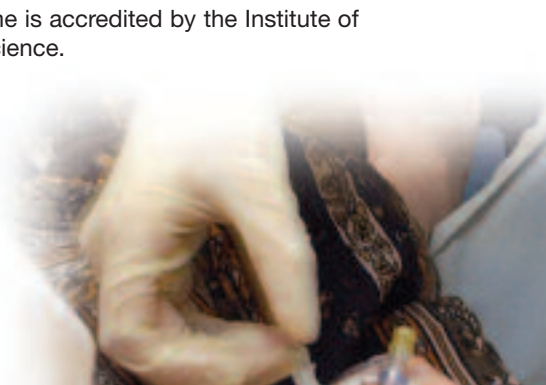
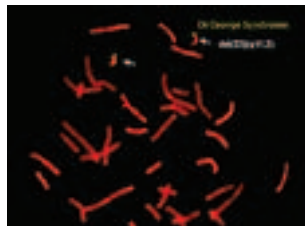
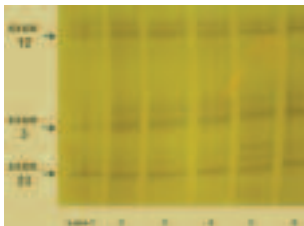
## Biomed courses train you to:

- Use Internet-based applications
- Make effective presentations
- Use real-time chat rooms and discussion groups to support reflective learning

## Biomed courses offer you:

- Online support from specialists in the field
- Online access to fellow students
- Self-assessment and quizzes to support your progress
- Rapid, meaningful feedback

The programme is accredited by the Institute of Biomedical Science.



# Analysis of Nucleic Acids

## Enquiries

**Name** .....

**Company name** .....

*Please send me further information on the following course(s):*

- Quality Systems Management
- Implementing Advanced Quality Management
- Management of Healthcare Associated Infection
- Point of Care Testing
- Robotics and Automation
- Gene Structure and Function
- Analysis of Nucleic Acids
- Bioinformatics
- Renal Disease
- Lung Disease
- Diagnosis of Breast Cancer
- WebCT Training for Course Creators

**Address** .....

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.....

**E-mail** .....

**Telephone** .....



the  
UNIVERSITY  
of  
GREENWICH



Return in envelope to:

**Cathy Ronan**

BioMed Administration Manager

Grey Building

Southwood Site

Avery Hill Campus

Avery Hill Road

Eltham

London SE9 2UG



## **BioMed Online Learning**

Grey Building  
Southwood Site  
Avery Hill Campus  
Avery Hill Road  
Eltham  
London SE9 2UG

Telephone: 020 8331 9978

E-mail: [biomed@gre.ac.uk](mailto:biomed@gre.ac.uk)



This document is available  
in other formats on request

BioMed courses are owned by the BioMed Consortium, comprising 17 NHS Trusts, the Health Protection Agency and the University of Greenwich