



## Certificate of Achievement

# Fridah Glelis Kariuki

has completed the following course:

### **BACTERIAL GENOMES: DISEASE OUTBREAKS AND ANTIMICROBIAL RESISTANCE** **WELLCOME GENOME CAMPUS ADVANCED COURSES AND SCIENTIFIC CONFERENCES**

This course explored the use of cutting edge genomic techniques in research on bacterial diseases, how they spread and how they resist antibiotic treatment.

The Royal College of Pathologists (RCPATH) has accredited this course for 9 Continuing Professional Development credits. This applies to medical staff and clinical scientists in career grade posts who are enrolled with one of the Royal Colleges for CPD purposes.

The Royal College of Nursing (RCN) has approved this course for 9 CPD Continuing Professional Development (CPD) credits from 25 April 2018 to 25 April 2019. Accreditation applies only to the educational content and not to any product. The Royal College of Nursing cannot confirm competence of any practitioner.



**Dr Rebecca Twells**  
Head of  
Wellcome Genome Campus Advanced Courses and  
Scientific Conferences



**Professor Nicholas Thomson**  
Group Leader, Bacterial Genomics and Evolution  
Wellcome Sanger Institute, Wellcome Genome Campus

WELLCOME GENOME CAMPUS

CONNECTING  
SCIENCE  
ADVANCED  
COURSES+  
SCIENTIFIC  
CONFERENCES

Accredited by



The person named on this certificate has completed the activities in the attached transcript. For more information about Certificates of Achievement and the effort required to become eligible, visit [futurelearn.com/proof-of-learning/certificate-of-achievement](https://futurelearn.com/proof-of-learning/certificate-of-achievement).

This learner has not verified their identity. The certificate and transcript do not imply the award of credit or the conferment of a qualification from Wellcome Genome Campus Advanced Courses and Scientific Conferences.



## Fridah Glelis Kariuki

has completed the following course:

### **BACTERIAL GENOMES: DISEASE OUTBREAKS AND ANTIMICROBIAL RESISTANCE**

#### **WELLCOME GENOME CAMPUS ADVANCED COURSES AND SCIENTIFIC CONFERENCES**

**80%**  
AVERAGE TEST  
SCORE

The course covered bacterial genomes and pathogenic bacteria, genome sequencing technology, genomic epidemiology, disease outbreaks, and antimicrobial resistance. The course focused on how bacteria evolve to become effective pathogens and how genome sequencing and signatures of evolution are used: to identify and track the spread of pathogenic and drug resistant bacteria in communities and between countries, and in the prevention of antimicrobial resistance.

#### **STUDY REQUIREMENT**

3 weeks, 3 hours per week

#### **LEARNING OUTCOMES**

- Explain why some bacteria are pathogenic
- Explore the structure of bacterial genomes
- Describe the uses of different genome sequencing technologies
- Investigate how genome data are used to track the spread of bacterial disease
- Discuss the role of genome sequencing in stopping the spread of antimicrobial resistance

#### **SYLLABUS**

- Diseases caused by bacteria
- What bacterial genomes look like
- Genome sequencing technology
- Mechanisms of transmission and resistance
- Genomic epidemiology – tracking the spread of bacterial pathogens
- Antimicrobial resistance

#### **ACCREDITATION**

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