

CASE STUDY BIRMINGHAM UNIVERSITY

Surgical Reconstruction and Microbiology Research Centre

Client Background

The **Surgical Reconstruction and Microbiology Research Centre** at the **University of Birmingham** is a national centre for trauma research, taking discoveries from the military frontline to improve outcomes for all patients.

Key Objectives

The University have launched a new study; the **Birmingham Concussion Test**, to review and potentially enhance concussion diagnosis in football.

This new study involves saliva and urine samples being collected from injured Premier League players, as well as uninjured 'control' players, by club doctors immediately post-match and at further time points over the course of a players' recovery.



The team are developing a handheld device to conduct the test during a match, and which will assist in concussion diagnosis and work out when those affected can return to play across sport.

A drop of saliva on a chip will be inserted into a device, with the results sent to a mobile phone or tablet. The doctor will then be able to see and interpret the results quickly and efficiently.

THE MARKET LEADER IN CLEAN AIR SOLUTIONS

Our Solution

Player samples are currently being tested inside three Monmouth Scientific Class II Biological Safety Cabinets at the *University of Birmingham*. The test looks for molecules in the blood, saliva or urine known as microRNAs, which can act as biomarkers to indicate whether the brain has suffered injury.

The Class II Biological Safety Cabinet utilises a specially ventilated enclosure, developed for sterile material handling. The unit guarantees both the operator and the working materials protection from potential biohazard infections.

Fitted with H14 HEPA Filters to create an ISO Class 4 Clean Environment, the unit's Air Diffuser and Sloped Intake guarantees efficient and smooth airflow. Inside the cabinet, UV Lighting Strip ensures complete VHP & Formalin Sterilisation.

The Guardian Micro-Biological Safety Cabinet has been independently type tested and approved to BSEN 12469:2000 by the UK's leading authority on Biological Safety Cabinets, the Health Protection Agency at Porton Down.



BRITISH
MANUFACTURED



FIVE YEAR
WARRANTY



LOW ENERGY
& NOISE ECO-MODE



HEALTH PROTECTION
AGENCY TESTED

What the said...

“” This research has the potential to benefit professional, grassroots and youth level footballers alike, making the process for diagnosing concussion as effective as possible.

Having a test that gives you a clear answer that's understandable to everyone would really help at all levels of sport. Similarly, this may be valuable for patients in NHS Accident and Emergency Departments.



Premier
League

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