

CASE STUDY

MAT AT THE UNIVERSITY OF PLYMOUTH – UPGRADING A LABORATORY WITHIN THE DERRIFORD RESEARCH FACILITY



Medical Air Technology (MAT) transformed an existing laboratory into a CL3 containment facility suitable for use within the University of Plymouth's Derriford Research Facility, home to the university's internationally-renowned research into brain tumours and a wide variety of other biomedical research disciplines.

The Brain Tumour Research Centre of Excellence at the University of Plymouth is one of five centres funded by the Brain Tumour Research charity and is among Europe's leading research institutes for low-grade brain tumours.

In order to carry out the innovative research that will lead to transformational impact, better treatments, and improved outcomes for people affected by brain tumours, the centre needs facilities of the highest standard – in this case, an additional CL3 containment facility.

The new CL3 research laboratory

As an expert in the critical ventilation required by containment laboratories and a track record of working with some of the UK's leading research institutions, MAT was ideally placed to work on the new laboratory alongside technology company CCTech, which initially recommended MAT for the project.

In order to upgrade the laboratory within the Derriford Research Facility to operational CL3 standards, MAT's installation engineers carried out a wide scope of work, including alterations to the supply and extract ductwork systems, and installation of new extract fan units and tight shut-off dampers. The control system was modified and recommissioned to the required parameters. Modifications were also undertaken to the internal layout of the laboratory.

A particularly interesting feature of the installation was the inclusion of low-height models of the TriMAT safety cabinets, used here for the first time ever and chosen to accommodate the laboratory's low ceiling height.



"We are delighted with the final result"

Dr Paul Waines, Senior Technician in the university's School of Biomedical Sciences and a member of the laboratory management team led by Dr Claire Adams, worked closely with MAT throughout the project. He says, "CL3 facilities enable us to carry out all manner of important research in a variety of areas, and we were delighted that MAT agreed to take on the project."

"Their professional approach, competence and effective communication at all stages led to delivery of the project on schedule and a seamless commissioning/ validation process. We are delighted with the final result and look forward to our researchers making full use of this facility to further expand their research in the near future."

The Brain Tumour Research Centre of Excellence

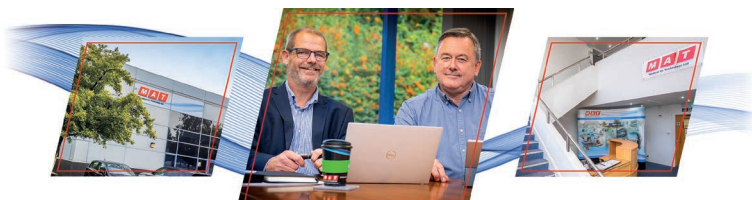
The University of Plymouth's Brain Tumour Research Centre of Excellence was established in 2014 and is home to around 30 researchers based within the university's Derriford Research Facility. They carry out a range of research projects and clinical trials, including work to advance understanding of different types of brain tumours, with much of the Plymouth research centred around meningioma, schwannoma and glioma.

In addition to investigating non-invasive diagnostic methods and non-surgical alternatives to replace traditional surgical tumour treatment, which can carry a high risk of damage to the surrounding normal nervous system tissue, the multidisciplinary research team at Plymouth is working to understand how and why brain tumours initially develop and why they sometimes transform into higher grades with much poorer prognoses for patients.

A specialist contractor

MAT designs, manufactures, and installs bespoke critical ventilation systems and turnkey project solutions for new build and refurbishment healthcare and life science projects. The team has extensive experience of working in live environments and fully understands the challenges around delivering a project within an operational scenario.

In addition, the company's facilities management division, MAT FM, provides a range of competitively priced and highly effective service and maintenance packages for all core products and turnkey solutions offered by MAT or other suppliers, ensuring that equipment is maintained, serviced and validated correctly for optimum performance and efficiency.



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