

INTRODUCTION

When the Center for Neuroscience at the University of Pittsburgh (known as CNUP) needed a new cryostat, we were delighted to offer an expert solution.

Our patented 9150 Cryostat would enable CNUP to advance its research across multiple teams working with a variety of specimens, maintaining high levels of accuracy and efficiency.

THE CLIENT

CNUP oversees all neuroscience education-related activities in the University, delivering important PhD programmes. It is highly regarded for its neurological research which takes place across four thematic areas including:

- Behavioural, systems and cognitive
- Cell and molecular
- Development, plasticity and repair
- The neurobiology of disease



Research is conducted by multiple teams drawn from the University's 150 neuroscientists. With researchers spread across diverse departments and disciplines, access to reliable and efficient equipment is critical to the productivity and reputation of CNUP's research facilities.

THE CATALYST

We received an enquiry from Lisa Chedwick, CNUP's Laboratory Manager. The Laboratory's existing cryostat had started to malfunction, and Lisa needed a replacement that would advance the accuracy and productivity of CNUP's research. With research in the hands of multiple teams, the replacement cryostat had to be able to move efficiently between different samples, cutting sections at different thicknesses.

BUYING CRITERIA

Lisa needed the new cryostat to meet the following criteria:

- Accomodate the larger brain specimens of monkeys, with an excursion length of at least 10cm.
- Manual defrosting capability to prevent sample deterioration during prolonged sectioning periods of several days.
- Reliably and consistently section specimens at 20, 25 and 50µm.
- The assurance of high-quality, regular maintenance and technical support.
- A compact size to fit the existing physical space in the laboratory, avoiding the need to move or reorganise other equipment.

THE SOLUTION

Our 9150 Cryostat was the perfect solution to meet Lisa's needs, outstripping US competition in terms of both product quality and service.

Installation proved straightforward and Lisa was pleased with our fast response and diligence in resolving initial queries.

Although CNUP has not needed further technical support, Lisa says she is confident in our service:

***"I know someone would get
back to me quickly."***

**Lisa Chedwick
Laboratory Manager
Center for Neuroscience
University of Pittsburgh**



OUTCOME

Our 9150 Cryostat is now significantly supporting CNUP's research work.

The machine has proved crucial for research involving larger brain specimens such as those from Rhesus and Cebus monkeys. Additionally, the lab has integrated a block face imaging system with the cryostat, using a camera that captures images of each section cut, facilitating the creation of a 3D brain reconstruction.

As well as meeting Lisa's initial criteria, she has found the section counter is a particularly useful feature, enabling selection of a specific number of tissue sections. Lisa has also found the machine's electronic controls very easy to operate.

Any concerns about maintaining the cryostat were allayed by our responsive service and annual servicing programme.

"I couldn't do the work I'm doing without it. I needed a machine to meet our specific criteria and no other company had that – this cryostat does what I need it to do."

**Lisa Chedwick
Laboratory Manager
Center for Neuroscience
University of Pittsburgh**

TO CONCLUDE

The successful implementation of our 9150 Cryostat has resolved the operational challenges of CNUP's laboratory research, increasing the accuracy and efficiency of its work.

We're excited to see that delivering a reliable machine to CNUP has enabled the laboratory to augment our cryostat with 3D reconstructions, in addition to creating accurate and fast specimens.

