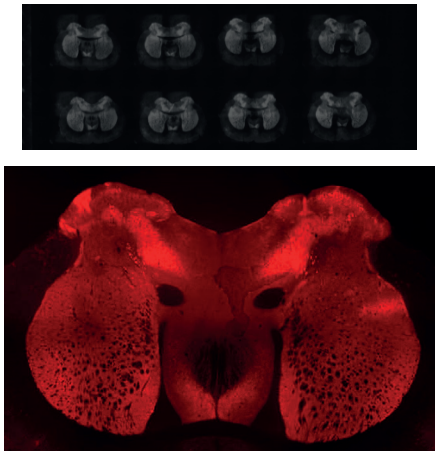
PRIOR PLW20 WELL PLATE LOADER FOR ALZHEIMER'S RESEARCH

PRIOR® Scientific

APPLICATION:
Brain Slice Imaging

Mouse brains are used as a model for research into dementia. The locations and quantities of hyperphosphorylated tau proteins and amyloid plaques, regarded as markers and possible causes of dementia, can be elucidated in specifically stained slices of mouse brain.



Images of slides with slices of mouse brain mounted (top) and a reconstructed brain (bottom). Images courtesy Dr Nick Barry, Laboratory of Molecular Biology (LMB).

A single mouse brain is sectioned into approximately 300 slices and precisely imaged. At the end of the process the images can be combined via software to create a 3D map of the brain.

CHALLENGE:
Accurate imaging of large quantities of slides on an inverted microscope

SOLUTION:
PLW20 well plate loader and adapter

The LMB already had a PLW20 well plate loader mounted to a Nikon Ti inverted microscope.

This is capable of loading and unloading 20 well plates automatically, with a load/unload time of 29 seconds per plate. An adapter allows four slides to be loaded per 'well plate'. The LMB can now load both slides and well plates automatically, without the need to purchase additional instrumentation.

An entire mouse brain can now be easily and automatically imaged.

Parts used: PLW20 Well Plate Loader/ PLW110 well plate format slide holder/ HWP7P1N4 stage/ V31XYZE ProScan III controller