



*Technology Opportunity, Ref. No. UZ-22/686*

## **Brainbox**

Brainbox is a brain storage container in pathology. Its design eases MRI read-outs and direct linking of brain sections with the results of histology or molecular biology analysis. The container is particularly useful for brain banks.

**Keywords** Brain container, pathology, MRI imaging, histology, brain bank

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**Reference** in preparation

**Background** Currently available post-mortem brain storage containers are hampered by a number of design shortcomings. They do not support the structure of the brain well enough to maintain its natural shape, the brain is immersed in too much storage fluid to permit direct and accurate MRI read-outs, and cutting the brain in such conventional containers for single area molecular biology, immunology or histology analysis is tedious.

**Invention** The innovative design of Brainbox offers a container with a brain-shaped mould that protects the brain structure and minimizes the amount of surrounding carrier fluid, which leads to much improved MRI images. The container is built in a layered structure with orthogonal cutting guides. This permits easy and accurate cutting of the brain into cubes that can be submitted to further analysis. Engraved in the design is a coordinate system that shows up in MRI and permits tracing of brain cubes on the MRI images for comparison of results. The box is useful for pathology applications, and brain research. The box may be particularly useful where large amounts of brain tissue need to be organized and stored effectively and in a well-traceable way.

**Fields of Use** Storage, transport, and analysis of post-mortem brains in pathology, research, and brain banks

**Patent Status** Patent application filed (EP 22/150094.5)

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