

A New Opportunity: The Wolfson Clinical Neuroscience Centre

A timely opportunity to overcome the challenge of space limitation is proposed jointly by the Institute of Neurology and the National Hospital for Neurology & Neurosurgery, namely to redevelop an existing property on Queen Square, immediately adjacent to the Queen Mary wing of the National Hospital for Neurology & Neurosurgery, into a new seven-storey research facility: the Wolfson Clinical Neuroscience Centre.

This facility would provide much-needed new space for research, assessment and treatment of patients, and be linked with state-of-the-art imaging facilities in National Hospital for Neurology & Neurosurgery and the Institute of Neurology, and in particular with a new laboratory using the technique of magnetoencephalography (MEG). Thus this new centre will allow further major advances in our understanding of human brain function in health and disease, and will build on the particular strengths of Queen Square in both clinical and basic science as well as in the area of human brain imaging.



Proposed link block to 60 Great Ormond Street conceptual massing model /Feb 2004 [devereux architects]

The proposed Wolfson Clinical Neuroscience Centre will provide facilities to integrate brain research at the most fundamental level with treatment of neurological disorders in the particularly well-defined and specialised group of patients treated in the National Hospital for Neurology & Neurosurgery.

The proposed Centre would provide two important facilities:

- new facilities for translational research using multidisciplinary techniques to understand sensory, motor, autonomic and cognitive processes in the healthy human brain and their disruption by neurological disease. Much of this work depends upon collaborative links with research groups across UCL, which has particular strengths in cognitive neuroscience. It would include the establishment at Queen Square of a magnetoencephalography (MEG) scanner for imaging human brain function

- these basic research facilities would be combined with new centralised facilities for assessment, treatment and rehabilitation of patients with epilepsy, stroke and movement disorders. These will be supplemented by a newly established Functional Neurosurgery Unit for treatment of patients with Parkinson's disease and dystonia.

The second floor contains the Functional Neurosurgery Unit, with testing and examination rooms and a psychology EEG laboratory for cognitive assessment of both in-patients and out-patients. There are also offices for the clinical and academic staff responsible for the research that takes place here, including Professor Hariz, the Head of the Unit.



Links to the existing estate:

The proposed new development is designed as an integral part of the NHNN estate. There are links at every level directly with the Queen Mary Wing, within which are lifts and stairs to connect with all parts of the remainder of the estate. Among some of the more important of the clinical linkages are the following:

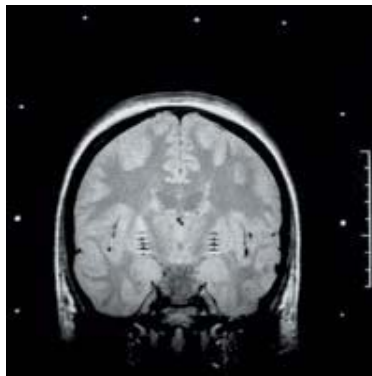
- Epilepsy evaluation and research: this is primarily located on the upper floors of the new wing. At level 7 there is a direct connection with the existing Jules Thorn telemetry suite within the adjacent Queen Mary Wing. The adjacent lift in Queen Mary Wing also provides a direct link to the imaging departments in the basement of this wing and the adjacent Chandler Wing. The same lift also provides connections to the theatres and ICU within Chandler Wing.
- The functional neuro-surgery department is located on the second and third levels of the new buildings. Again the lift provides a direct link between the EEG and test laboratories to the imaging department directly below as basement level. The same vertical circulation links the theatres, ICU and in-patient wards.
- The education centre is located in the basement of the new facility, and forms an integral part of the facility currently under construction at no. 60 Great Ormond Street. It is reached directly from the street at 33 Queen Square, and also internally from the Queen Mary Wing. There is a further direct link at the east end between the main lecture theatre and the central part of the estate, including the Chandler Wing.
- Out-patient links: the new out-patient facilities on the ground and first floor connect directly with the existing OPD in Queen Mary Wing. These out-patient facilities replace and expand upon those at present in 8-11 Queen Square, thereby eliminating a large number of patient journeys across the square. They

are also linked by lift to the imaging and MRI suites in the basement of the Queen Mary and Chandler Wings. Similarly, the rehabilitation departments in Albany and Queen Mary Wing can be reached directly, thereby eliminating further 'traffic' across the square. All other departments of the 'core estate' can also be reached without the necessity to go out into the open air, including the other out-patient facilities within Chandler Wing.

- Movement disorders and motor neuro-science (levels 4, 5 and part of level 6): the lift within Queen Mary Wing again provides vertical links to the x-ray and MRI suites in the basement, as well as connections to the wards within Queen Mary Wing. Ground floor links also connect to the Chandler Wing.



A senior radiographer, preparing a patient for a CT scan.



MRI brain scan of a patient with dystonia following surgical implantation of deep brain stimulators into the internal globus pallidus of each hemisphere.