

### Services to business

An internationally recognised facility, the Henry Wellcome Building for Biomolecular NMR Spectroscopy (HWB•NMR) houses the latest nuclear magnetic resonance technology, including the UK's only 900 MHz spectrometer and cryogenic probes; providing the greatest level of sensitivity available today.



Liquid handling robots are utilised for automated sample preparation and delivery, dramatically increasing the turn around time for experiments.

NMR has several unique advantages:

- Non-destructive technique; precious samples can be regenerated for further study
- Versatile; concentrations, dynamics, folding, interactions and structures of molecules can be ascertained
- Emulates the biological environment; NMR studies are performed in the liquid state

New and proven technologies for drug discovery, metabolomics, proteomics and structural biology are developed and provided in-house at HWB•NMR, through an extensive network of scientific collaborations and in partnership with an array of NMR manufacturing, software, biotech and pharmaceutical companies.

The purpose-designed building in Birmingham provides academic and industrial users and partners with secure and convenient access to the instrumentation needed to push back the frontiers of their research, aiding identification of:

- Diagnostic metabolic markers of disease
- Prognostic molecular indicators
- Drug fragment screening and lead validation

To help better understand the biochemical mechanisms of protein targets involved in human disease, and to discover new ligands and lead molecules for therapeutic intervention, the HWB•NMR can help solve the three dimensional structures of the most demanding targets including:

- Enzymes
- Membrane proteins
- Receptor: ligand complexes

NMR an invaluable tool not just structural biology, but also metabolomics and fast screening of novel ligands and lead compounds.



**Contact us:**

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