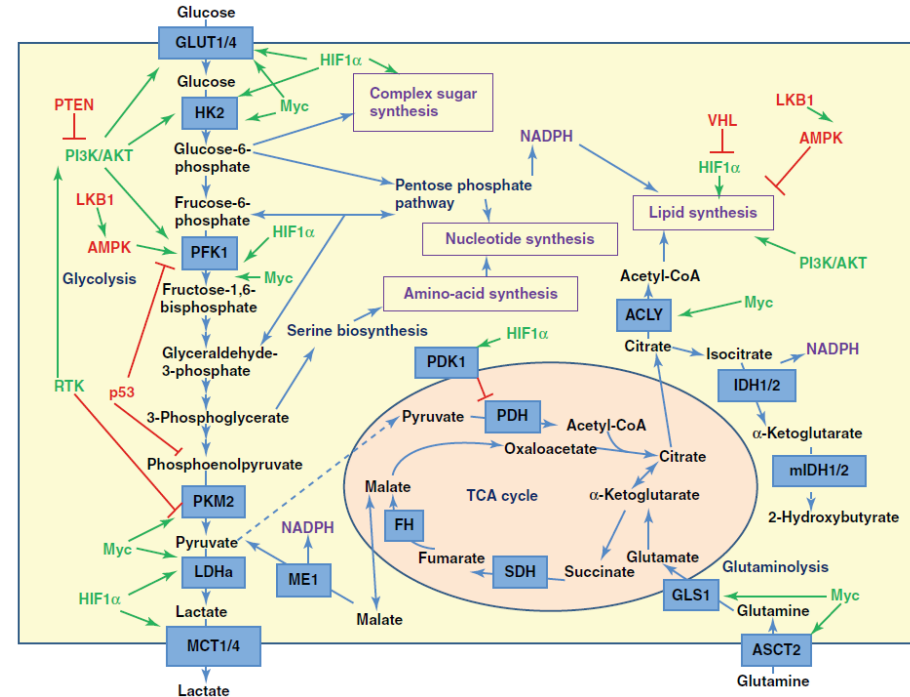
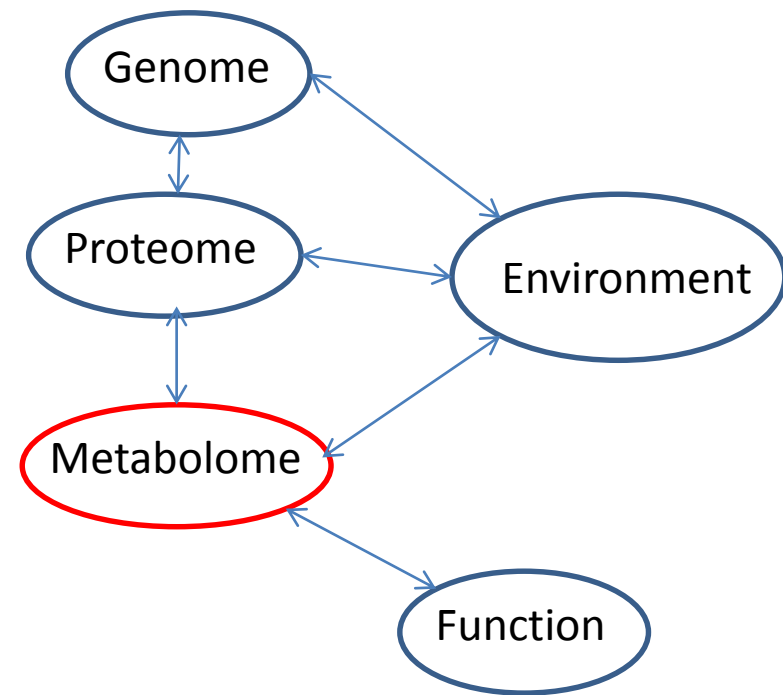


Metabolic biomarkers of treatment response using Nuclear Magnetic Resonance

Dr Tom Eykyn

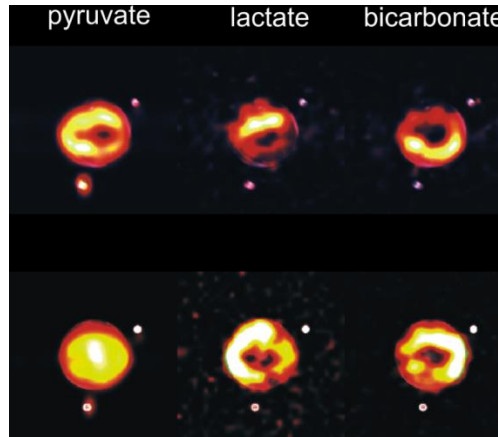
Department of Imaging Chemistry,
Division of Imaging Sciences
and Biomedical Engineering, King's
College London.



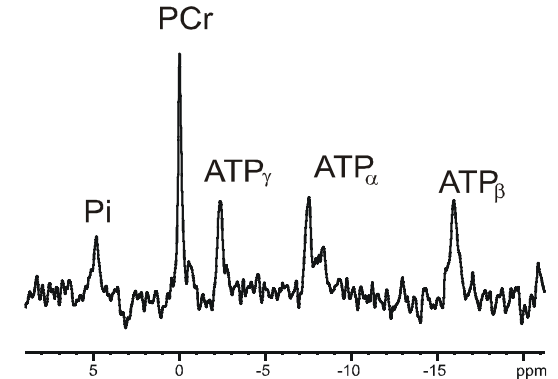
Multinuclear NMR in Biomedicine



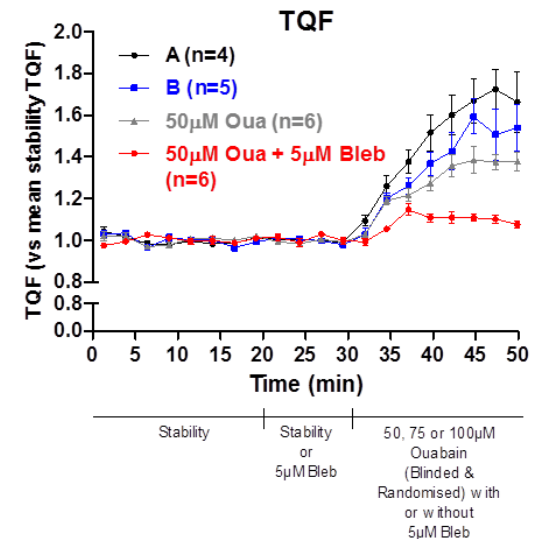
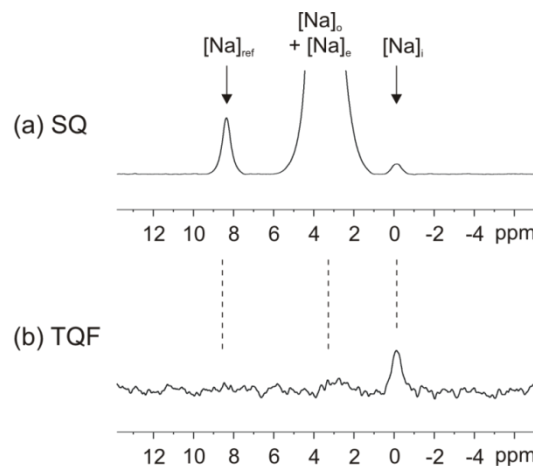
^{13}C NMR for probing metabolic pathways.



^{31}P NMR for probing energetics.

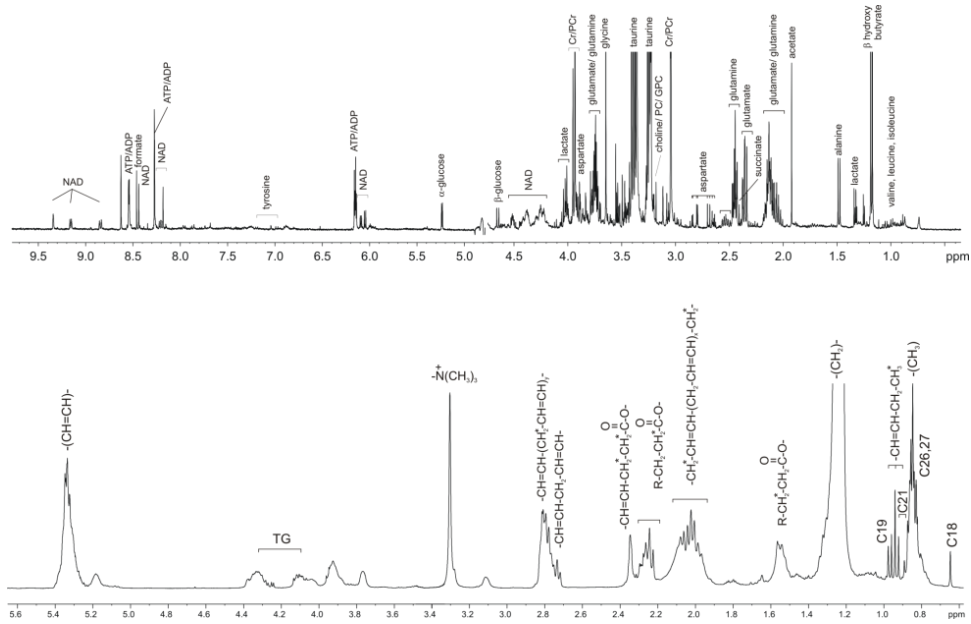


^{23}Na NMR for probing intracellular Na_i

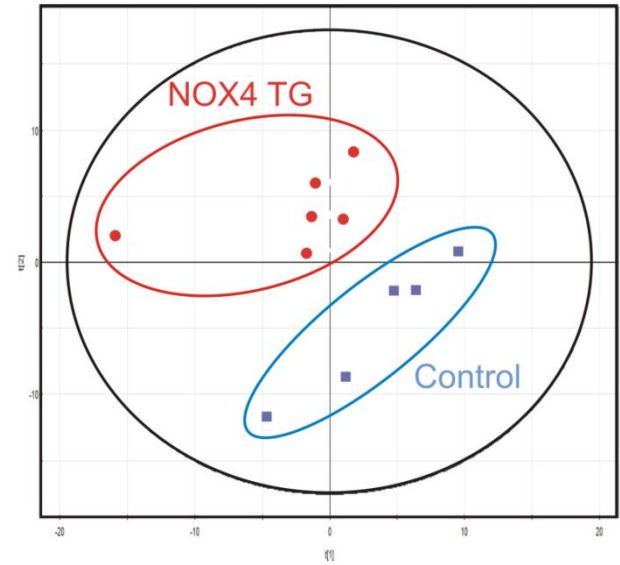


¹H NMR and Metabolomics

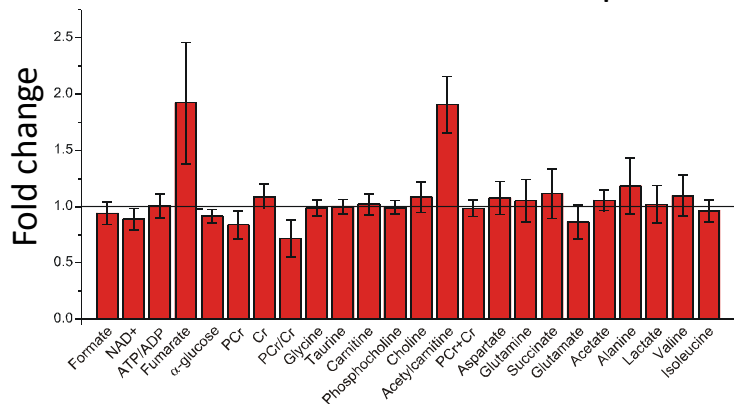
¹H NMR of aqueous and lipid extracts



Multivariate statistical analysis



Biomarkers of treatment response



Applications:

Cardiovascular disease

Cancer therapeutics