

Phill B Jones, Ph.D.

office: (617) 643-0870 mobile: (617) 319-5473

web: www.nmr.mgh.harvard.edu/~pjones email: pjones@nmr.mgh.harvard.edu

EDUCATION

Postdoctoral Research Fellow (2004 - present) - Mentor: Prof Bradley T. Hyman

Massachusetts General Hospital, Charlestown, MA,

Ph.D., Plasma and Atomic Physics (2003) - Mentors: Dr Michael Coppins and Prof Patrick Carolan

Imperial College, London and UKAEA, Culham Science Center, Oxon

BSc (Hons) Physics (1998)

University of Manchester institute of Science and Technology

SKILLS AND TECHNIQUES

Computer programming and IT – MATLAB, IDL, numerical simulations, graphical user interfaces

Optical design – Microscopes, spectrometers, optical system design, lenses, lasers, filters, opto-mechanics, etc

Management – Project management, experimental design, presentations, reports

RESEARCH EXPERIENCE

Postdoctoral Research Fellow, Department of Neurology, Massachusetts General Hospital, 2004 to present

- Technology development and biomedical engineering
 - Developed several novel biotechnological techniques ranging from intrinsic optical imaging of metabolism in stroke to novel methods of molecular imaging using microscopy
- The role of intrinsically disordered proteins in neurodegenerative disorders
 - Elucidated effects of protein conformation and missfolding on multiple human disease processes
- Oxygen metabolism during cerebral ischemia (stroke)
 - Made groundbreaking measurements of neurovascular unit and neuroprotection mechanisms

Ph.D. student, Plasma and Atomic Physics at Imperial College, London

UK Atomic Energy Authority, Culham Science Center, Oxford (1998-2003)

- Combined helium atomic line spectroscopy and Doppler spectroscopy
 - Designed optical system to combine two existing diagnostics to make novel measurements of electric field changes during instabilities that led to discovery of novel cause of energy loss in fusion power plants

Research assistant, University of Manchester Institute of Science and Technology (1994 and 1997)

- Categorized two types of industrial plasma sources using electrostatic probes and discovered cause of inefficiency due to anomalous diffusion

Research assistant, Fusion Research Center, Univ of Texas (1996)

- Designed vacuum vessel for Texas mirror experiment plasma containment device

ADMINISTRATIVE AND MANAGEMENT EXPERIENCE

- Currently manage several interdisciplinary research projects with multiple peer collaborators as well taking an active role in mentoring graduate technicians
- Co-organizer of the Ahn, Joon-Wook graduate student seminar series at UKAEA (2000)
- Secretary of the UMIST physics society (1997-8)

REFERENCES

Available upon request