

SHORT CURRICULUM VITAE

Dr Nigel D Harris

DATE OF BIRTH: 22 July 1957

QUALIFICATIONS:

Degree (CNAAB)	2 (1) Hons Biophysical Science	(1980)
	North East London Polytechnic	
MSc	Differential Mechanical Fragility of Erythrocytes	(1982)
	Department of Medical Biophysics	
	University of Manchester (1982)	
PhD	Applications of Electrical Impedance Tomography	(1991)
	in Respiratory Medicine	
	Department of Medical Physics, University of Sheffield	

POSTS HELD:

1978-1979	Sandwich Placement, Clinical Chemistry, Clinical Research Centre, Harrow
1982-1989	Basic Grade Physicist, Royal Hallamshire Hospital, Sheffield
1989-2001	Principal Physicist, Department of Medical Physics and Clinical Engineering, Royal Hallamshire Hospital, Sheffield.
2001-	Head of Clinical Measurement and Medical Imaging Royal National Hospital for Rheumatic Diseases, Bath.

EXPERIENCE:

1982-89	Basic Grade Physicist Respiratory Function, Electrical Impedance Imaging, Ophthalmic Electrophysiology
1989 -2001	Principal Physicist - Medical Audiology / Diabetes Research Vestibular Function Testing, Hearing Aid Fitting, Electrophysiology Administration of RHA funded Clinical Audit Projects, Micro-lightguide spectroscopy, Quantitative Sensory Testing, Peripheral Blood Flow Measurements, ECG signal processing and analysis, Clinical Information Systems
2001-	Head of Clinical Measurement and Medical Imaging Royal National Hospital for Rheumatic Diseases, Bath. The department is staffed by a physicist, two medical technical officers and two radiographers, together with clerical support staff. Bone Mineral Density Measurement by dual x-ray absorptiometry and ultrasound. Thermography and microvascular assessment using capillaroscopy and laser Doppler Imaging. Diagnostic X ray and video fluoroscopy. Membership of the Trust Executive, Equipment Management and Research Committee. Member of Bath Institute of Rheumatic Diseases, Research Committee.

GRANTS AND AWARDS:

1992	Special Trustees of the Former Sheffield Hospitals Ambulatory Monitoring of Physiological Responses to Hypoglycaemia Professor JD Ward, Dr ND Harris, Dr T Cochrane and Dr SR Heller	£29,500
1993	Trent Locally Organised Research Development of a Non-Invasive Hypoglycaemic Alarm Dr ND Harris and Dr SR Heller	£24,400
1994	British Diabetic Association Methods of measurement and assessment of peripheral nerve blood flow Professor JD Ward and Dr ND Harris	£120,600
1995	British Heart Foundation Assessment of pulmonary oedema in left ventricular failure using electrical impedance tomography Dr AH Morice, Professor BH Brown and Dr ND Harris	£98,000
1996	Trent Locally Organised Research Development of a Non-Invasive Hypoglycaemic Alarm Dr ND Harris, Dr SR Heller and Dr JL Marques	£23,400
1996	British Diabetic Association The effect and clinical importance of hypoglycaemia upon the ECG in type 1 patients Dr SR Heller, Dr ND Harris and Dr T Cochrane	£39,000
1996	University of Sheffield Research Fund Cardiac rhythm disturbance during hypoglycaemia Dr R Chess-Williams, Dr SR Heller, Dr ND Harris	£2,200
1996	Novo Nordisk UK Grant Postural vasoconstrictor response in patients with NIDDM Dr L Caddick and DR ND Harris	£6,645
1997	European Union INCO/COPERNICUS Program (Total budget) Project Co-ordinator - Black Sea Telediab (3 years)	£230,000
1996	British Diabetic Association The effect and clinical importance of hypoglycaemia upon the electrocardiogram in type 1 diabetes Dr SR Heller and Dr ND Harris	£33,106
1997	British Diabetic Association Studies of ECG changes during clinical hypoglycaemia in type 1 diabetes Dr SR Heller and Dr ND Harris	£40,000
1998	British Diabetic Association The role of the spinal cord in diabetic neuropathy Dr S Tesfaye, Dr ND Harris, Dr P Griffiths and Prof. JD Ward	£48,592
1999	Juvenile Diabetes Foundation International An investigation into the pathogenesis and clinical mediators of the abnormal electrocardiogram caused by insulin induced hypoglycaemia Dr S Heller and Dr N D Harris	£112,000
1999	Novo Nordisk UK Grant The clinical consequences and therapeutic potential of electrocardiographic changes produced by hypoglycaemia in adults and children with type 1 diabetes Dr S Heller and Dr N D Harris	£60,000
2000	British Diabetes Association Investigation of the structural and functional abnormalities in the development of sub-clinical human diabetic neuropathy Dr S Tesfaye, Dr ND Harris and Dr R Malick	£55,586
2001	Diabetes UK Spinal cord atrophy in diabetic neuropathy: implications for pathogenesis and treatment Dr S Tesfaye, Dr ND Harris, Prof. P Griffiths, Prof P Shaw, Dr I Wilkinson	£128,00

MEMBERSHIP OF PROFESSIONAL BODIES:

Corporate Member Institute of Physics and Engineering in Medicine
Institute of Physical Sciences in Medicine, Chairman Physiological Measurement Topic Group (1992)
Board Member - Journal Physiological Measurement (1996-)
Institute of Physics and Engineering in Medicine - Training scheme examiner (1997-)

PEER REVIEWED PUBLICATIONS:

Harris ND, Byfield PGH (1979)
Procian Red HE3B binds Plasminogen. FEBS Letters August 1979.

Harris ND, Waterhouse JC, Stamp JM, Rose B (1985)
A comparative evaluation of oxygen concentrators. University of Sheffield.

Harris ND, Suggett AJ, Barber DC, Brown BH (1986).
Applications of APT in respiratory function.
Clin Phys Physiol Meas, Vol 8, Suppl A, pp155-165.

Harris ND, Suggett AJ, Barber DC, Brown BH (1987)
APT: A new technique for monitoring pulmonary function.
Proc Medical Research Soc Clin Sci, 1987, Suppl 16, p14

Harris ND, Stamp JM (1987)
Current developments in oxygen concentrator technology.
J Med Eng Tech, Vol 11, 3pp103-107.

Harris ND, Suggett AJ, Barber DC, Brown BH (1988)
APT: A new technique for measuring pulmonary function.
Clin Phys Physiol Meas, Vol 9, Suppl A, pp79-85.

Cooper CB, Harris ND, Howard P (1990)
Evaluation of a turbine flow meter (Ventilometer MK2) in the measurement of ventilation.
Respiration 57:243-247.

Cooper CB, Harris ND, Howard P (1991)
Acute effects of external negative pressure ventilation in COPD compared with normal subjects.
Eur Resp J, Vol 4, No.1, p63-68.

Tesfaye S, Harris N, Ward JD (1992)
Exercise induced conduction velocity increment: a marker of impaired peripheral blood flow in diabetic neuropathy?
Diabetologia, Vol 35, p155-159.

Tesfaye S, Harris ND, Jakobowiki S, Mody C, Ward JD (1993)
Impaired blood flow and arterio-venous shunting in human diabetic neuropathy.
Diabetologia 36, 1266-1274.

Morice AH, Harris ND, Campbell J, Zhang F, Brown B (1993)
EIT in the investigation of chest disease in Clinical and Physiological applications of EIT
Ed Holder UCL Press.

Harrison DA, Breen DP, Harris ND and Gerrish SP (1993)
The performance of two intensive care humidifiers at high gas flows
Anaesthesia 48(10) 902-5

Dijkstra AM, Brown BH, Leathard AD, Harris ND, Barber DC and Edbrooke DL (1993)
Clinical applications of Electrical Impedance Tomography.

J. Med. Eng. Tech. 17(3) 89-93.

Campbell J, Harris ND, Zhang F, Morice AH, Brown B (1993)
The monitoring of changes in intrathoracic fluid volumes with the Sheffield EIT system in Clinical and Physiological applications of EIT Ed Holder UCL Press.

Campbell J, Harris ND, Zhang F, Morice AH, Brown B (1994)
Detection of changes in thoracic fluid in man using EIT.
Clinical Science 87, 97-101.

Campbell JH, Harris ND, Zhang F, Morice AH, Brown B (1994)
Clinical applications of EIT in the monitoring of changes in intrathoracic fluid volumes.
Physiol. Meas. 15 Supl 2a:217-222

George E, Harris N, Bedford C, Macdonald IA, Hardisty C, Heller SR (1995)
Prolonged but partial impairment of the hypoglycaemic physiological response following short-term hypoglycaemia in normal subjects.
Diabetologia 38,1183-1190.

Jayarajan V, Harris ND and Stevens JC (1995)
Tinnitus following ear syringing.
J Audiol Med,4(2), 85-86.

Tesfaye S, Harris ND, Jakobowiki S, Mody C, Ward JD (1995)
Development of painful neuropathy following institution of intensive metabolic control (Insulin neuritis).
Diabetologia 39, 3, 329-335

Is ACE inhibition with lisinopril helpful in Diabetic Neuropathy (1995)
Reja A, Tesfaye S, Harris ND and Ward JD
Diabetic Medicine. 12(4) 307-9

Peacy SR, George E, Bedford C, Rostrami-Hodjegan A, Harris N, Hardisty C, Tucker GT, Macdonald IAM, and Heller SR (1996)
Similar physiological and symptomatic responses to sulphonylurea and insulin induced hypoglycaemia in normal subjects.
Diabetic Medicine 13, 634-41

Harris ND, Ibrahim S, Radatz M, and Ward JD. (1997)
Measurements of oxygen saturation and blood flow in human Sural nerve by microlightguide spectrophotometry.
Advances in experimental Medicine and Biology 428; 15-20

Harris ND, Baykouchev S, Marques JLB, Cochrane T, George E, Heller S and Ward JD (1996)
A portable system for monitoring physiological responses to hypoglycaemia
J. Med Eng. and Technology 20, 196-202

Noble TJ, Morice A, Milnes P, Harris ND, Lethard AD, Smith S and Brown BH (1996)
Electrical Impedance Spectroscopy in the detection of lung water in heart failure
Proc. 18th Ann. Int. Conf. IEEE Eng. in Med. and Biol. p.511

George E, Marques JLM, Harris ND, Hardisty C, Macdonald IAM, and Heller SR (1996)
Preservation of physiological responses to hypoglycaemia in patients with IDDM
Diabetes Care 20, 1293-1300

Marques JLM, George E Peacy SR, Harris N, Macdonald IAM, Cochrane T, and Heller SR (1997)
Altered Ventricular Repolarisation during hypoglycaemia in patients with diabetes.
Diabetic Medicine 14, 648-654

Nopp P, Harris ND, T-Xzhao and Brown BH (1997)

A model for the dielectric properties of human lung tissue against frequency and air content.
Medical and Biological Engineering and Computing. 35(6), 695-702

Bath A, Harris ND and Yardley MPY(1998)
Evaluation of Vestibulo-Collic reflex
Clinical Otolaryngology 23(5) 462-466

Pruna S, Dixon R and Harris ND (1998)
Black Sea Tele Diab: Diabetes Computer System with Communication Technology for Black Sea Region
IEEE Transactions on Information Technology in Biomedicine 2, pp193-196

Rajbhandari SM, Harris ND, Tesfaye S, Ward JD. (1999)
Early Identification of Diabetic Foot Ulcers that may Require Intervention using Microlightguide Spectrophotometry.
Diabetes Care 22/8, 1292-1295

Rajbhandari SM, Harris ND, Sutton M, etal (1999)
Digital Image Analysis; a Novel and Accurate Method of Monitoring Foot Ulcer Healing.
Diabetic Medicine 16 339-342

Ibrahim S B, Harris ND, Fahid S, Radatz M, Rajbhandari SM, Brady L, Ward JD (1999)
A new minimally invasive technique to demonstrate nerve ischaemia in Diabetic Neuropathy
Diabetologia 42 737-742

Ibrahim S, EA Laude, Bee D, Eaton S, Ward JD and Harris ND . (1999)
Combined microlightguide spectrophotometry and microendoscopy for measurement of oxygen saturation in peripheral nerves.
Physiological Measurement 20, 65-74

Bath AB, Harris ND, McEwan J and Yardley MP (1999)
Effect of conductive hearing loss on the Vestibulo-collic reflex.
Clin. Otolaryngol. 24, 181-183

Harris ND and Heller SR (1999).
Sudden death in young patients with Type 1 diabetes-a consequence of disease, treatment or both?
Diabetic Medicine 19

Dixon RM, Heller SR, Harris ND, Camplin DA and Grubb PA (1999)
The SHINDIG project - some lessons on implementing the GEHR architecture
Health Informatics Journal 5/4, 200-204

Noble TJ, Morice AH, Milnes P, Harris ND and Brown BH. (1999)
Monitoring patients with left ventricular failure by electrical impedance tomography.
Eur. J. Heart Failure 1 379-384

Noble TJ, Harris ND, Milnes P, Morice AH and Brown BH (2000)
Diuretic induced changes in lung water assessed by electrical impedance tomography
Physiological Measurement. 21(1) 155-163

Ireland RH, Robinson RTCE, Heller SR, Marques JLB and Harris ND (2000)
Measurement of high resolution ECG QT interval during controlled euglycaemia and hypoglycaemia.
Physiological Measurement 21(2) 155-163

Peacey SR, Robinson R, Bedford C, Harris ND, MacDonald IA, Holman RR, Heller SR (2000)
Does the choice of treatment for type 2 diabetes affect the physiological response to hypoglycaemia?
Diabetes Care 23, 7, 1022-3

Harris ND, Ireland R, Marques JLB, S. Hudson S, Davies C, Lee S, Robinson RT and Heller SR (2000)

Can Changes in QT Interval Be Used To Predict The Onset of Hypoglycaemia in Type 1 Diabetes ?
Computers in Cardiology 2000 (27)

Peacey SR, Robinson R, Bedford C, Harris ND, Macdonald IA, Holman RR and Heller SR (2000)
Does the choice of treatment for type 2 diabetes affect the physiological response to hypoglycemia?
Diabetes-Care. Jul; 23(7): 1022-3.

Harris ND, Raptis A, Raptis S, Dixon RM, Grubb PA, Ionescu-Tirgovist C, Khlangot N, Anestiadi V, Anestiadi Z, Georgescu M, Stanciu E and Pruna S (2001)
Black Sea Telediab: development and implementation of an electronic patient record for patients with diabetes.
Health Informatics Journal 7(2), 108-111

Simon EM Eaton, Nigel D Harris, Satyan M Rajbhandari, Pam Greenwood, Iain D Wilkinson, John D Ward,
Paul D Griffiths, Solomon Tesfaye (2001)
Spinal Cord Involvement In Diabetic Peripheral Neuropathy
The Lancet 358, 35-36

Heller SR, Robinson RTCE, Harris ND, Ireland RH, Lindholm A (2002)
Soluble insulin and the rapid-acting analogue insulin Aspart have similar effects upon ventricular repolarisation.
B.J.Pharm., In Press

S. Lee, N.D. Harris, L. Yeoh, I.A. Macdonald, R.T. Robinson and S.R. Heller (2002)
Effect of adrenaline on cardiac repolarization in man - increases in QTc duration and QT dispersion occur
independently of plasma potassium.
J. Clin. Invest., In press