

Iraq Research Fellowship Programme

SUMMARY OF SELECTED ROUND 2 PROPOSALS & TEAM PROFILES February 2010

'Transfer of Expertise in NMR Spectroscopy from the University of Liverpool to Iraq'

Research Summary

Nuclear Magnetic Resonance Spectroscopy (NMR) is the most important analytical spectroscopy for synthetic chemists. Indeed it is impossible to imagine a western university chemistry department functioning without immediate access to NMR and to trained NMR spectroscopists. Since roughly 1990, NMR has not been available in Iraqi Universities resulting in a dearth of up-to-date expertise in this critical technique. This has resulted in a dichotomy with regard to NMR spectroscopy provision in Iraqi Universities – a lack of equipment has resulted in a lack of trained personnel. The absence of a cadre of expert trained personnel prevents the re-establishment of NMR facilities, resulting in a lack of equipment, and consequently trained personnel, and so on – a classic 'chicken and egg' problem. This lack of ready access to NMR spectroscopy severely limits the research that can be done in Iraqi Chemistry Departments and has an immediate negative impact on the development of academic thinking/progression in synthetic chemistry. This project seeks to begin to break this cycle via collaboration efforts between the Technical Institute of Mosul, the Bagdad University of Technology, the University of Kirkuk, the University of Al-Isra, Amman, the University of Mosul, and the Department of Chemistry at the University of Liverpool. NMR expertise will be transferred from the University of Liverpool to the Iraqi partners by means of two month research visits by the Iraqi fellows to Liverpool. These visits, where practicable, will be timed to coincide with courses in NMR spectroscopy in the Liverpool undergraduate and post-graduate programmes. Delivery to the wider chemistry community in Iraq will be by subsequent lecture courses delivered by the Iraqi fellows on their return to their home institutions. The fellows will be advised and supported in this by the senior Iraqi academics involved in the project. The senior Iraqi participants will also undertake short visits to Liverpool both for knowledge transfer and for planning/review of the visits by the fellows.

Research Team Composition:

Co-Principal Investigator: Jonathan Iggo is Senior Lecturer in Inorganic Chemistry at the University of Liverpool. He is internationally recognised for his work in the application of NMR Spectroscopy to functional chemical systems, particularly in the elucidation of the mechanisms of transition-metal catalysed reactions by *in situ*, *ex situ*, and sapphire tube NMR studies and in the characterisation of polynuclear complexes and compounds *via* 2-dimensional NMR methods. In addition, he has unrivalled experience in the design of high pressure NMR cells for the study of homogeneous catalysed reactions and in applying *in situ* NMR methods to the study of a wide range of catalytic systems. Dr Iggo has collaborated extensively with groups of international repute. His recent publications include: J.K. Liu, X.F. Wu, J.A. Iggo and H.L. Xiao, *Coord. Chem. Rev.* 2008; 252:782-809. X. Wu, J. Liu, D. Di Tommaso, J.A. Iggo, C.R.A. Catlow, and J-L. Xiao, *Chem. Eur. J.* 2008; in press. J.K. Liu, B.T. Heaton, J.A. Iggo, R. Whyman, J.F. Bickley and A. Steiner, *Chem. Eur. J.* 2006; 12: 4417-4430. J.A. Iggo, Y. Kawashima, J. Liu, T. Hiyama and K. Nozaki, *Organometallics* 2003; 22: 5418-5422; N.M. Perez and J.A. Iggo, *Abs. Paps. Amer. Chem. Soc.* 2001; 222: 42-CATL. M.M. Tomashevskaya, S.P. Tunik, I.S. Podkorytov, B.T. Heaton, J.A. Iggo, M. Haukka, T.A. Pakkanen, P.L. Pirila and J. Pursiainen, *J. Organomet. Chem.* 2007; 692:2911-2923. J.A. Iggo, J. Liu, G. Overend and A.W. Graham in *Ann. Rep. NMR Spectrosc.*, Academic Press, Editon edn., 2008, Vol. 63: 179-262.

Co-Principal Investigator: John Satherly is Lecturer in Physical Chemistry at the University of Liverpool. He has over 15 years of research experience with national and international recognition in the measurement and prediction of the interfacial tension between coexisting liquid and supercritical fluid phases in relation to improved oil recovery. Capillary forces significantly affect the movement of multiphase fluids through porous media and hence must be taken into account in petroleum reservoir simulators. Consequently, the fluids have to be studied at the high pressure and temperature conditions of oil reservoirs. His leading

publications include: H. Greberg, G. Paolini, J. Satherley, R. Penfold and S. Nordholm, *J. Colloid and Interface Sci.* 2001; 235:334. S. Sarman, H. Greberg, J. Satherley, R. Penfold and S. Nordholm, *Fluid Phase Equilib.* 2000; 172:145. R. Penfold, J. Satherley and S. Nordholm, *Fluid Phase Equilib.* 1995; 109:183. C. Miqueu, J. Satherley, B. Mendiboure, J. Lachaise and A. Graciaa, *Fluid Phase Equilib.* 2001; 180:315. C. Miqueu, D. Broseta, J. Satherley, B. Mendiboure, J. Lachaise and A. Graciaa, *Fluid Phase Equilib.* 2000; 172:169. R. Tahery, J. Satherley and D.J. Schiffrin, *J. Phys. Chem. B*, 2007; 111:5941. N.Z. Clarke, K.A. Johnson, J. Satherley and D.J. Schiffrin, *Langmuir* 2001; 17:6048.

Co-Investigator: This investigator is a CARA Fellow at the University of Liverpool. Before taking up this fellowship, he was Scientific Lecturer in the Department of Applied Sciences at the University of Technology in Baghdad between 2003 and 2006. Prior to this, he was Scientific Lecturer in the Department of Chemical Engineering at the same university from 1991. His area of expertise is Applied Chemistry in the field of detergents. Using gas chromatography, his research interests include studying the effects of using different anionic and cationic ingredients in detergents; the effect of heat on the preparation of detergents; multi-residue determination of pesticides on fruit, vegetables, cereal and earth using Association of Official Analytical Chemists (AOAC) methods; the analysis of waste and drinking water to determine the dissolution of organic compounds using the EPA method; testing preservation materials for food using AOAC methods.

Co-Investigator: This investigator is Scientific Lecturer in Chemistry at the University of Al-Israa in Amman, Jordan and is a CARA Fellow. His areas of expertise include analytical chemistry for general science, industrial chemistry, chemistry for civil engineering, analytical chemistry for chemical engineering, pure analytical chemistry, instrumental analysis and pollution control. Prior to taking up his CARA Fellowship he held posts as Scientific Lecturer at the University of Technology in Baghdad (2003-2008), Scientific Lecturer at the Department of Chemistry at Ibn Al-Haithem College at the University of Baghdad (1995-2001) and Head of the Scientific Department/Scientific Lecturer at the College of Military Engineering in Baghdad (1991-2003). He also worked as a Scientific Researcher at the Military Industrial Corporation (MIC) in Baghdad (1987-1991) and the State Organisation of Technical Industry in Baghdad (1980-1987). His recent publications include: Evaluation and study of the effect of mercury levels with side product of industrial organisation as a pollutant of the environment, *Um-Salama Science J. of the College of Science for women/University of Baghdad* 2006; Vol 3. No.1. Potentiometric analysis of samarium ion in aqueous solution employing selective electrode based on Crown Ethers-Samarium Picrate complex containing membrane, *Ibn Al-Haitham Scientific J. of the College of Education* 2006; Vol.1. The study of the biochemical changes associated with breast cancer in Iraqi women, *Al-Kindy College Medical J.* 2004; Vol. 2. No.2. Relation between trace and essential elements and mercury pollution in dentists' blood serum from exposure to mercury dental amalgam fillings, *Iraqi Chemical Union* 2003; Vol. 29, No. 1.

Co-Investigator: This investigator is Assistant Professor of Organic Chemistry in the Dept. of Pharmacy at the Institute of Technology in Mosul. His research interests focus on synthetic studies of important heterocyclic compounds. More specifically, this includes studies with polyfunctionally substituted heterocyclics; synthesis of coumarin-sulphonamides, thiochroman-4-one as synthone in synthesis of new spiro and fused heterocyclic compounds of biological interest; synthesis of newly substituted hymecromone as hypoglycaemic agents; synthesis and hypoglycemic activity of new 5-(1,1-diphenyl-1-hydroxymethyl)-substituted oxa/thiadiazoles sulfonamides; comparative study between microwave and conventional techniques using different catalysts to synthesize new isobenzofurans; and use of phase transfer catalysis and microwave assisted irradiation techniques. His recent publications include: Microwave Irradiation Assisted Synthesis and Antifungal Activities of Some Mannich Bases, *Raf. J. of Sci.* 2009; Vol.20, No.1: 33-37. Effects of Propylene Glycol(PG) on Rabbits Haematological Changes, *J. of Education and Science* 2009; Vol.19, No.1.

Co-Investigator: This investigator is Assistant Professor of Chemistry at the University of Technology in Baghdad. His main areas of expertise include instrumental analysis, X-ray fluorescence and diffraction and physical chemistry. His most recent publications include: Development Methods for Preparation of Molecular sieve 4A, *Al-Mustansyria Scientific J.* 2007; Vol.18, No.3. Catalyst Used in Merox Operation for Extraction and Sweetening of Petroleum Components, *J. of Al Nahrain University Scientific JNUS* 2007; Vol. 10 (1). Environmental, Photo-induced Degradation of Polystyrene by Molybdenum Complexes, *Iraqi*

Polymer J. 2005; Vol.10 No.1. Suppression Sulphur Content in Petroleum Coal, J. of Engineering and Technology 2000; Vol.19 No.1.

Co-Investigator: This investigator is Assistant Lecturer in Inorganic Chemistry in the Department of Chemistry at the College of Science at Kirkuk University. His research interests lie in the fields of bioinorganic chemistry and macromolecular research. More specifically, his research focuses on synthesis and characterisation of some macro cycle ligand Hexadintate and octadintate and the synthesis of macro cycle Derivative from 2, 6-diformyl-4-methylphenol and tries (3-aminopropyl) amine (tpt) and its reaction with metal ion.

Co-Investigator: Aasem Sabah is Assistant Lecturer in the College of Basic Education at the University of Mosul. He is currently undertaking research towards his PhD on the preparation of ionic liquids and their application to the desulfurization of heavy fuel in the Dept. of Chemistry in the College of Science at Mosul University. In the past, his research has focused on the preparation and characterization of some multinuclear complexes for transition and non transition metal ions with tetrakis and tris (mercapto acetic acid). He has recently published on the subject of Synthesis and Characterization of some Tin Complexes with Thioglycolic Acid.

‘Developing a School-Based Psychosocial Intervention Model to Promote Adaptive Adjustment and Normalisation for Iraqi Children during Conflict and Post-Conflict Times’

Research Summary

Current violence, conflict, failure of the education and health system as well economic hardship has had a severe impact on the wellbeing of Iraqi children. Any reconstruction efforts in Iraq should take into consideration the promotion of physical and psychological recovery and social reintegration of children. The importance of community based interventions alongside clinical interventions is a well recognised approach in assisting the psychosocial status of children in war-affected areas. Schools are recommended as the most effective and efficient setting for organising the provision of psychosocial care for children in areas of armed conflict or disaster. Schools offer a familiar, non-stigmatised setting and provide the broadest access to children and their families. Broad-scale school interventions can be used to promote adaptive post-war adjustment and normalisation. The proposed study aims to design a school-intervention model which is based primarily on the Cognitive Behavioural Therapy approach, developing portable skills to deal with everyday stressors related to trauma. This pilot step should be extended and implemented in schools all over Iraq as a model of healthy intervention which may aid the future wellbeing of the country’s youth. In addition to this, the programme will help extend the network of cooperation between Iraqi professionals and international experts, which may assist in engaging Iraqis within a healthier framework of relations with the rest of the world.

Research Team Composition:

Principal Investigator: Leslie G. Scarth was Consultant Child Psychiatrist at the Department of Child and Family Psychiatry at the Royal Hospital for Sick Children in Edinburgh as well as Honorary Senior Lecturer in the Department of Child Life and Health at the University of Edinburgh. His research interests focus on the psychological effects of chronic illness in children, having provided paediatric liaison services to Neurology, Endocrine and Haematology Services at the Royal Hospital for Sick Children, Edinburgh. Dr Scarth provided clinical services to children with neuro-psychiatric problems, *e.g.* hyperkinetic syndromes, post-brain injury patients and ticquers. His other main field of endeavour has been the provision of home-based community child psychiatry in the East- and Mid-Lothian Districts of the Lothian Region. Post-retirement, Dr Scarth has been active on the Edinburgh Children’s Panel Advisory Group (Juvenile Justice) and has been a Member of the Association of Child Psychology & Psychiatry in Armenia. Since 2005, he has also delivered lectures on Child Development at the University of Yerevan and has been a Member of the Iraqi Association for Child Mental Health. In 2008, he lectured at the Dohuk Centre of Mental Health in Kurdistan. In 2009, Dr Scarth became a Co-opted Member of the Iraqi Sub-Committee, Board of International Affairs, Royal College of Psychiatrists in London. His most recent publications include: A.K. Al-Obaidi, L. Jeffrey, L.G. Scarth, Albawai, Iraqi Childrens Rights: Building a System under Fire, Medicine,

Conflict & Survival 2009; Vol.2, No.2:145-152. A.K. Al-Obaidi, L.G. Scarth, K.N. Dwivedi, Mental Disorder in Children attending A Child Psychiatric Clinic at a General Paediatric Hospital in Baghdad (submitted for publication 2009). A.K. Al-Obaidi, L.G Scarth, Children without Protection: The Innocent Victims in Iraq, IACAPAP Bulletin xix.April2008 (available from <http://iacapap.ki.se/>).

Principal Author/Co-Investigator: Abdul Kareem Al-Obeidi is a visiting scholar at the Institute of International Education and is hosted as a consultant psychiatrist at Behman hospital in Cairo. He is also the Chairman of the Iraqi Association for Child Mental Health (IACMH). Prior to this, he was Consultant Psychiatrist in the Department of Psychiatry at Al-Yarmook Teaching Hospital in Baghdad (2006) and Consultant Psychiatrist in the Child Psychiatric Clinic at the Central Teaching Hospital for Paediatrics in Baghdad (2004-2006). Dr Al-Obaidi has also held posts as Lecturer in Child Psychiatry at the Iraqi Committee for Medical Specialization in the Ministry of Higher Education and Lecturer in Child Psychiatry in the Faculty of Medicine at Al-Mustansiriya University in Baghdad. His most recent publications include: A.K. Al-Obaidi and L.R. Jeffrey (2009) Iraq In K. Malley-Morrison (Ed.) *State violence and the right to peace: An international survey of the views of ordinary people*, Praeger Security International, CA, 147-159. A.K. Al-Obaidi (In Press) Child mental Health in Iraq In R. Munoz and S. Muntasser (Eds) *Children and war, the impact of war and terror on Middle Eastern children and adolescents*. A.K. Al-Obaidi and S.F. Attalah (2009) Iraqi Refugees in Egypt: an exploration of their mental health and psychosocial status. *Intervention*, 7(2), 145-151. A.K. Al-Obaidi, L.R. Jeffrey, L. Scarth, G. Albadawi, (2009) Iraqi Children's Rights: Build a system under fire. *Medicine, Conflict & Survival* Vol. 25:2:145-162.

Co-Investigator: This investigator is a Psychiatrist in the Psychiatric Department at Al Yarmook Teaching Hospital and the Al-Hanan Institute for Children with Learning Disabilities in Baghdad and is a Member of the Iraqi Medical Society and the Iraqi Association for Child Mental Health. She has also attended national and international conferences and workshops including the First Iraqi Psychiatric Conference in Baghdad (1999), workshops on Psychosocial Support for Students in Iraq in Baghdad (2005 and 2006), the First Workshop for Training Child Mental Health Workers at the Al-Mansour Institute for Children with Learning Disabilities in Baghdad (2006) and the Eastern Mediterranean Association for Child and Adolescent Psychiatry and Allied Professions (EMACAPAP) 5th Annual Regional Meeting in Beirut (2008).

Co-Investigator: This investigator is a doctor in the Department of Paediatrics in the Medical Faculty at Al-Mustansyria University in Baghdad. He graduated as a medical doctor from the Al-Mustansyria medical faculty in 2003 and is currently pursuing postgraduate training in paediatrics.

'Mobile Phone Technologies to Enhance Self-Management & Education for Iraqi Diabetics'

Research Summary

There is a sharp increase in the prevalence of diabetes patients among the younger generation of Iraqis living in the Basra region. Poor medical facilities and a proper infrastructure combined with the general lack of diabetes experts in Iraq, has left the country unable to cope effectively with such increasing patient demand. There is a paramount need for innovative and new technology solutions to provide a leap in the health care process, especially for diabetes screenings, management and care. In parallel, post-2003 Iraq has seen a massive increase in usage and availability of mobile phones and the Internet. This major intake of new technology has yet to be crystallised for innovative healthcare services, such as diabetes care. In recent years, there has been an exponential surge of using m-health systems and services in developing countries such as India and the continent of Africa. In these areas, the massive demand and intake of such mobile systems has had a major economic impact as they are used to alleviate and provide more efficient and effective health care delivery mechanisms, especially for chronic disease management and self-care. This project will aim to identify and introduce the potential use of mobile health (m-health) technologies for improved management of Diabetes patients in southern Iraq. The necessary clinical and technical knowledge transfer and pilot clinical trials in Basra will be carried out as part of the three- year programme. A framework for post pilots and the current programme will also be studied and formulated as part of this research proposal.

Research Team Composition:

Principal Investigator/Author: Robert Istepanian is Professor of Data Communications, Kingston University and visiting Professor, Division of Cellular and Molecular Medicine, St. George's University, London. He is the founder and director of the Mobile Information & Network Technologies Research Centre (MINT) at Kingston University. Previous posts: academic and academic research posts in the UK and Canada including Senior Lectureships at University of Portsmouth and Brunel University, UK; Associate Professor, University of Ryerson, Toronto; Adjunct Professor, University of West Ontario, Canada; and, 2008 Leverhulme Distinguished Visiting Fellow, Centre for Global EHealth Innovation, University of Toronto and the University's Health Network.

He is a Fellow of the Institute of Engineering Technology (Formerly IEE) and Senior Member of the IEEE and is investigator and co-investigator of several EPSRC and EU research grants on wireless telemedicine. He currently serves on several IEEE Transactions and international journals' editorial boards including *IEEE Transaction on Information Technology in Biomedicine* (since 1997), *IEEE Transactions on NanoBioScience* and *IEEE Transactions on Mobile Computing, Int. J. of Telemedicine and Applications* and *Journal of Mobile Multimedia*. He has published more than 170-refereed journal and conference papers and edited three books including chapters in the areas of mobile communications for healthcare, m-health technologies and biomedical signals processing.

Co-Investigator: Assistant Professor, Department of Medicine, University of Basra, and founder of the Al-Faiha Diabetes Endocrine & Metabolism Centre with over 11,000 registered patients. Recent publications include: '*Parity is associated with increased waist circumference and other anthropometric indices of obesity*', *Eating Weight Disorders* 2009; Vol.14, No.2; '*Biphasic (Premix) insulin analogs in type 2 diabetes mellitus*'. Recent Patients on Endocrine Metabolic & Immune Drug Discovery, 2009, Vol.2, No. 2:129-134. '*Patient opinion on barriers to diabetes control in areas of conflicts: the Iraqi example*', *Conflict & Health* 2008; Vol.2, No.7:1-5.

Co-Investigator: Currently Associate Professor and Head of the Department of Electrical Engineering, Al Israa University, Jordan. Previous posts include: Associate Professor, Head of Computing & Software Engineering Department, University of Technology, Baghdad. Research interests: real time systems and application in digital signal processing in healthcare; mathematical modelling and bio-information data analysis; design and interfacing of microprocessor based hardware and software system application in medical devices; and parallel computing and parallel architectures (array systems). His most recent publications include: Adaptive Fuzzy System Modelling, *J. of Engineering & Technology* 2001; Vol.20, No. 2: 201-21. Genetic Programming Implement in Block Cipher Design, *IJCCCE* 2001; Vol.2, No.1. Edge Detection Using Combined Gaussian Filter, *J. of Engineering & Technology* 2001; Vol.20, No.5: 297-30.

Co-Investigator: Ghaida Al-Suhail is Assistant Professor in the Department of Computer Engineering at the University of Basrah. Her research interests focus on multimedia communications; mobile multimedia; wireless networks & communications; internet protocols and IP networks; cross-layer design & quality of service; telemedicine & m-health systems; digital communications and signal processing; wireless sensors networks; and optical communications. Her recent publications include: Improving the QoS of Wireless Video Transmission via Packet-level FEC, *Proc. Of Inter. Conf. on Signal Processing and Communication Systems (ICSPCS 2007)*, Gold Coast, Australia, pp.530-536. An Efficient Error-Robust Wireless Video Transmission Using Link-Layer FEC and Low-Delay ARQ Schemes, *J. of Mobile Multimedia (JMM)* forthcoming, USA, JMM080312, Vol. 4, No.3, 23. A Cross-Layer Model for Video Multicast Based TCP Adaptive FEC over Heterogeneous Networks, *Int. J. of Mobile Computing and Multimedia Communications* 2009; Vol.1, No.1: 53-69.

Co-Investigator: Mohammed Abdul-Niby is Lecturer in the College of Engineering at the University of Basrah. Prior to this, he was Associate Professor at the American University in London lecturing on data communications; IT applications; TCP/IP and internetworking, communication engineering and computer networking. He is also a Visiting Researcher/Member of the Centre for Osmosis Research & Applications within the Fluids Research Centre at the University of Surrey. His research interests focus on characterisation of silicon substrate and electronic devices; broadband internet access via satellite; data communications and electronics; and wireless communication networks. His publications include:

Generation of Constant-Envelope Signals Using a Sine-Wave Crossing Technique, *Int. J. of Electronics* 1985; Vol.59, No.3. Wideband Frequency-Invariant Phasemeter with Lead-Lag Indication, *Int. J. of Electronics* 1987; Vol.62. No.1. The Lifetime Distribution of Excess Carriers in H⁺ Ion Implanted Silicon by Photoconductive Frequency Resolved Spectroscopy, XI International Conference on Ion Implantation Technology (IIT 1996), Texas-Austin USA. Proceedings of the 11th International Conference on Ion Implantation Technology, Ishidida E (Ed). IEEE, Piscataway, New Jersey, USA, 1997, pp. 668-671.

Co-Investigator: Ala Sungoor is a Research Fellow in the Mobile Information and Network Technologies Research Centre in the Faculty of Computing, Information Systems and Mathematics at Kingston University in London. Prior to this, he held several academic and research positions including Lecturer at University of Technology and Visiting Research Fellow at the Scientific Research Council in Baghdad (1985-1996). Between 1996 and 2004 he was a Lecturer at Al-Balqa' Applied University. In 2004 he joined Kingston University for his PhD studies. His recent projects include the design and development of a Mobile Chronic Disease Management System with Motorola (USA). This project is jointly run with St-George's Hospital; research on novel microarray clustering methods using digital signal processing methods; developing a data-acquisition and networking controller to remotely supervise and monitor the industrial process over the public Internet (petrol and Gas application); and developing a multi-channel communication controller for a data acquisition system to direct process control in an iron plant. His recent publications include: Evaluation of a mobile phone telemonitoring system for Glycaemic control in patients with diabetes, *J. Telemed. Telecare* 2009; Vol.15:125-128.

UK Medical Collaborator: John Gregory is Professor of Paediatric Endocrinology at the School of Medicine at Cardiff University. His research interests include: aspects of clinical service delivery (psychological, care at diagnosis, transition, information provision) for children with diabetes; Studies on the metabolic effects of endocrinopathy, childhood cancer and other illnesses on body composition, bone mineralisation (at both the whole body and bone cellular level) and energy expenditure; and genetics of growth hormone deficiency and thyroid disease. His recent publications include: S.J. Channon, M.V. Huws-Thomas, S. Rollnick, K. Hood, R.L Cannings-John, C. Rogers, J.W. Gregory, A multicenter randomized controlled trial of motivational interviewing in teenagers with diabetes. *Diabetes Care* 2007; 30:1390-5.

UK Medical Collaborator: Nazar Mansour is Clinical Senior Lecturer in Obstetrics & Gynaecology at the School of Medicine at Cardiff University. His principal research themes have been ultrasound (1984-current) and reproductive medicine (1985-current). His contribution to research in ultrasound dates back to 1984 when he joined the first large ultrasound-based ovarian screening programme in the general population at the Kings College Hospital, London (1984-1987). Several publications emanated from that project and more recently, he also contributed to the national ovarian cancer screening programme both in women with a familial history of ovarian or breast cancer (1999-current) and the United Kingdom Collaborative Trial of Ovarian Cancer Screening (2001-current). His most recent publications include: D.M. Baird, B. Britt-Compton, J. Rowson, N.N. Amso, L. Gregory, D. Kipling, Telomere instability in the male germline. *Human Molecular Genetics* 2006; 15:45-51. C.M. Kelly, S.V. Precious, R. Penketh, N. Amso, S.B. Dunnett, A.E. Rosser, Striatal graft projections are influenced by donor cell type and not the immunogenic background. *Brain* 2007; 130:1317-1329

'Community Reconciliation through Theatre: Developing a University of Basra Model'

Research Summary

Our proposal is a research project to document and evaluate the establishment within the English Department of the University of Basra of an English-language theatre group dedicated to fostering academic community, developing students' skills of English language and teachers' communicative pedagogy, and honing their understanding of modern and contemporary English theatre. The theatre group, to be called simply Basra Theatre Group, will have a double mandate, each component of which will be of equal importance. The first commitment of Basra Theatre Group will be to mount productions in English of significant curriculum-relevant plays, which are written by modern and contemporary British and American playwrights. In each production, a group of selected students and teachers will be involved. The second commitment will be to

engage in creative workshops based on the theories of Augusto Boal to enable the students and the teachers communicate and discuss their community problems and issues in English. Also, these workshops will be useful for teachers who would like to use Boal's techniques in the classroom. The project has two distinct foci for research. The first addresses the impact of theatre activity on the academic community in the University of Basra, principally in the English Department, both students and faculty, and in concentric circles outward into the wider community. The second focus of research will be on the anticipated impact of participation in the project on the students' language facility (in English), their critical thinking skills, their readiness to participate in interactive learning, and their confidence in engaged performance.

Research Team Composition:

Principal Investigator: Robert Fothergill is a playwright, critic and theatre historian and is Professor Emeritus of Theatre in the Faculty of Fine Arts at York University, Canada. Prior to this, he held the Chair of Theatre in the Faculty of Fine Arts (1994-1999) and the Chair of English in Atkinson College (1978-1982, 1990-1992) at the same University. In 1962-1963 he was Lecturer in English at the University of Baghdad. In addition to writing several award-winning plays, Prof Fothergill has published *Public Lies and Other Plays* (Toronto, Playwrights Canada Press, 2007) and *Private Chronicles: A Study of English Diaries* (London, Oxford University Press, 1974). He has also directed, produced and performed in a number of plays in Canada and India. As well as contributing as an instructor in acting workshops in the Department of Drama at the University of Rajasthan, India, Prof Fothergill was also Visiting Professor at the Indian Association for Canadian Studies seminar at the University of Baroda, Gujarat, India.

Principal Author/Co-Investigator: Amir Al-Azraki is a PhD student in the Department of Theatre at York University, Canada. Prior to undertaking his doctoral research, he was Lecturer in English Drama in the English Department at the University of Basra (2004-2006) and Lecturer in English poetry at Shatt Al Arab University in Basra (2004-2005). As well as directing and performing in a number of plays in Iraq, Mr Al-Azraki has written several plays, two of which were recently published: *Stuck & Judgement Day* (Victoria, First Choice Books, 2008). Another one of his plays, *Waiting for Gilgamesh: Scenes from Iraq*, was staged at Winters College, York University and at the University of Basra in 2009.

Co-Investigator: Muhammad Al-Maliki is Lecturer in English Grammar and Linguistics at the University of Basra (2005-2008) and at Shatt al-Arab College in Basra (2010). Prior to this, he was a lecturer at the College of Science at the University of Basra (2005). At the University of Basra, Mr Al-Maliki has coordinated symposiums and conferences and has conducted workshops in critical thinking, language teaching, literature and linguistics. He also worked as an assistant director on the production of Amir Al-Azraki's play *Stuck* at the University of Basra in 2009 and *Waiting for Gilgamesh: Scenes from Iraq* in 2010. Before taking up his post as Lecturer in English, he worked as an interpreter and translator for the international press (2003) and as an Assistant Programme Officer for several NGOs and CSOs including the USAID-Funded Local Governance Democratic Dialogue Activity (DDA), Civic Participation Program (CCP) and the International Republican Institute (IRI) for advancing democracy worldwide (2004). He is a member of the online Critical Thinking Community.

Co-Investigator: to be confirmed