

SSR CENTRE FOR

RESEARCH ACTIVITIES



Dr (Mrs) M. Manraj
Acting Director

During the academic year under review, the SSR Centre for Medical Studies and Research continued its efforts in research on non-communicable diseases, focusing on the genetic aspects of complex diseases such as premature coronary heart disease, type 2 diabetes and high blood pressure. Since March 2003, it is a member of the Africa Human Genome Initiative (initiated by Professor Wilmot James, Executive Director of the Human Sciences Research Council in South Africa), a group of African state institutions, which strive to be in a position to benefit from the Human Genome Project .

The Centre also maintained its activities in the field of asthma and allergy, in collaboration with specialists from the Ministry of Health, further expanding those into the field of food allergy, taking thus another step into becoming a reference centre in the field of allergology in Mauritius.

ACADEMIC STAFF

- 1 Dr (Mrs) M Manraj MD, PhD, Research Fellow, Acting Director as from March 2000.
- 1 Dr (Mrs) L Poonyth, MBChB, Assistant Research Fellow.
- 1 Dr N Kotea, PhD, Senior Research Officer

RESEARCH SUPPORT STAFF

- 1 Technicians: 5 (including one on leave with pay)
- 1 Specialised Nursing Officers: 3
- 1 Technical Assistants: 5

RESEARCH ACTIVITIES UNDERTAKEN IN LINE WITH THE POLICIES OF THE SSR CENTRE

Molecular genetics of pre-eclampsia in Mauritian women and Genetics of pre-eclampsia: Foetal contribution were on-going projects by Dr L. Poonyth in collaboration with the Ministry of Health in Mauritius and Pr X. Jeunemaitre from the College de France.

Polymorphisms in the IKBL gene, a non-HLA gene in the MHC region that may modulate immune function and explain susceptibility to immunopathological diseases was an going MPhil project by Mr A. Boodhoo, MPhil student, who was jointly supervised by Professor Patricia Price from University of Perth, Australia and Dr N. Kotea from SSR Centre.

Dr M. Manraj was awarded the degree of Doctor of Philosophy on 3rd April 2003. The on-going project Search for genetic factors underlying susceptibility to premature coronary heart disease in Mauritius is a follow-up on her PhD

TEACHING AND TRAINING ACTIVITIES

Academic staff of the SSR Centre assisted in the teaching of some modules of the BSc (Hons) Medical Studies, Biomedical Sciences and Nursing programmes run by the Department of Health & Medical Sciences in the Faculty of Science. Staff of the Centre contributed in project supervision of nine BSc (Hons) Nursing students

Mrs S. Dowlut, MSc student in Biotechnology, Bangalore underwent three months training starting in June 2002, under the supervision of Dr Kotea in Diagnostic strategies for haemoglobinopathies in Mauritius for partial fulfilment of her MSc Course.

Dr N Kotea gave a talk on hemoglobinopathies in a continuous medical education programme at SSRN Hospital in Pamplémousses in June 2003.

ATTENDANCE AT SEMINARS, CONFERENCES, MEETINGS, WORKSHOPS, ETC

Dr M. Manraj attended the National Consultative meeting for needs assessment and priority setting in Intellectual Property Rights (IPR) and Biotechnology in Mauritius, organised by the Faculty of Agriculture at the University of Mauritius on 8th and 9th August 2002.

Dr M. Manraj attended the Awareness Workshop on Intellectual Property Rights organised by the Mauritius Research Council at Radisson hotel, Pointe aux Piments, from 28th to 29th August 2002.

Mrs S Lee Kwai Yan and Miss A. Høbø attended the 3rd International conference of SFRR-Africa held in Cape Town, South Africa, from 8th to 11th October 2002. Miss Høbø presented a paper on Linkage Disequilibrium between the Glu298Asp Polymorphism in the NOS 3 Gene and age of onset of coronary heart disease in Indo-Mauritian men.

Dr Poonyth presented a paper on Hypertensive disorders of pregnancy in Mauritius at the 3rd International workshop on Reproductive Immunology/Immunological Tolerance and Immunology of Pre-eclampsia held at La Pirogue hotel between 30th October and 1st November 2002.

Dr Manraj attended the Training of Trainers workshop on Formation Pédagogique des Enseignants de Médecine in collaboration with the Conférence Internationale des Doyens de Médecine d'Expression Française (CIDMEF) held between 16th and 20th December 2002 at Mauritius Institute of Health.

At the request of the Biomedical Steering Committee of the Mauritius Research Council, Dr M Manraj made a formal presentation on Genetics of Diabetes and Associated Conditions in February 2003.

Dr Manraj was awarded an AstraZeneca scholarship to present a paper entitled A Genome-wide scan gives indication for overlapping linkage in the 8q23 region for several traits of the metabolic syndrome in Indo-Mauritians at the 3rd International workshop on Insulin Resistance held between 17th and 19th February 2003, New Orleans, Louisiana, USA.

Miss A. Høbø attended a training course on Medical Waste Management organised by Ministry of Environment in collaboration with the Basel Convention Regional Centre of Pretoria, South Africa held between 17th and 20th March 2003 in Mauritius.

Dr M. Manraj was granted an Africa Human Genome Initiative fellowship to attend a workshop on Genetic Research, Ethics and the Law at the Human Genome and Africa conference held from 19th to 22nd March 2003 in Stellenbosch, South Africa.

Dr M. Manraj presented a paper on Gender-related difference on the influence of the paraoxonase Gln192Arg polymorphism on coronary heart disease in the Indo-Mauritian population at the GASAT II Conference organised by the Mauritius Institute of Education in Mauritius from 6th to 11th July 2003.

Dr M. Manraj attended the workshop Assises de la Recherche dans l'Océan Indien, held at St Denis, Reunion Island from 3rd to 5th June 2003.

Dr Manraj attended the Common Country Assessment for Mauritius Validation workshop on Under 5

OTHER ACTIVITIES

Several meetings were held with staff of the Centre between January and June 2003 by the SSR Centre Monitoring Committee, which was set up by the Management Board of the Centre at its 11th meeting on 9th December 2002. The Monitoring Committee was set up to carry out an assessment of the situation at the SSR Centre and make appropriate recommendations for the future orientation of the Centre. The SSR Centre continued to provide allergy testing for aeroallergens and introduced skin prick tests for food allergy as well, with the help of two specialists from the Ministry of Health.

Twenty-three Symposia/lectures were organised by the SSR Centre in collaboration with the Medical Update Group. Local doctors and eminent personalities in the medical field from abroad delivered those lectures.

EXTERNAL VISITORS

Dr Authur NGOLET visited the Centre in December 2002 in the course of a WHO Expert Mission on Reorganisation of laboratory services in the Republic of Mauritius.

Dr Tim Vyse, Wellcome Trust Senior Clinical Research Fellow, Senior lecturer and Honorary Consultant in Rheumatology, Hammersmith Hospital, London, visited the Centre on 7th May 2003.

Professor T J Mariba, Dean of Faculty of Sciences of University of Pretoria visited the Centre on 28th May 2003.

A delegation from International Group Study Exchange from Belgium visited the Centre from 10th to 11th June 2003.

PUBLICATIONS

Meera D Manraj, Stephan Francke, Annick HØbØ, Solange Lee Kwai Yan, Lang Heng Semfa, Vinod Balgobin, Teman K Gunness, Uday S Ramjuttun, Philippe Froguel, Interaction between gender and PON1 Gln192Arg Polymorphism on coronary heart disease in the North-Indian Mauritian population (2003) *Molecular and Therapeutic Aspects of Redox Biochemistry*, Chapter 17, Pg 227-238.

Annick HØbØ, Meera D Manraj, Nitin K Gopaul, and Erik E ~nggard, Pulse Wave Analysis: A non-invasive method to assess endothelial function in clinical practice (2003) *Molecular and Therapeutic Aspects of Redox Biochemistry*, Chapter 11, Pg 145-150.

N K Gopaul, M D Manraj, A HØbØ, S Lee Kwai Yan, A Johnston, M J Carrier, E E ~nggard, Oxidative stress may precede endothelial dysfunction and Insulin resistance in Indian Mauritians with impaired glucose metabolism (2003) *Molecular and Therapeutic Aspects of Redox Biochemistry*, Chapter 3, Pg 26-36.

J J Hoaran, M Cesari, A Dieye, N Kotea, S K Surrin, A Moine, H Caillens, F Cadet and M Pabion, Comparison of TAP2 frequencies in type 1 diabetes patients and healthy controls from three ethnic groups indicates an African origin for the TAP 2 G allele . *European Journal of Immunogenetics* 2003 June 30 (3): 207-211.