

Prof Peter Ian Folb

Citizenship: South African
Qualification: MB, ChB, MD, FCP (SA), FRCP (London), FRS (South Africa)
Experience: Peter Folb is professor and head of the department of pharmacology at the University of Cape Town and chief specialist in internal medicine at Groote Schuur Hospital, Cape Town – positions he has held since 1976. Previously, he was senior lecturer in clinical pharmacology at the University of London at Guy's Hospital. He has a doctorate in experimental pharmacology and is a fellow of the Royal College of Physicians, London. From 1980 to 1998 he served as chair of the South African Medicines Control Council, the national drug regulatory authority. He has supervised more than 80 postgraduate students, and has served as a consultant to the World Bank, Medecins sans Frontieres and to the World Health Organization over many years. Since 1996 he has been chair of the WHO special task force for research into severe malaria, and he chairs the WHO scientific advisory committee in vaccine safety. Peter Folb serves, *inter alia*, as member of the WHO strategic advisory group of experts (SAGE) into vaccine policies worldwide and as member of the WHO/TDR proof of principle committee that directs the scientific and strategic development of new drugs for neglected tropical diseases. He is director of the South African Medical Research Council Traditional Medicines Research Unit, based jointly at the University of Cape Town and the University of the Western Cape, and director of the WHO Collaborating Centre for Drug Policy Research, also based at the two institutions. For many years he was co-editor of Meyler's Side Effects of Drugs – the international encyclopaedia of adverse drug events. His special interests are in the fields of clinical and experimental pharmacology, drug safety and the scientific basis of new drug development. He is a Fellow of the Royal Society of South Africa.

Contribution to project:

Project leader; scientific collaboration as member of UCT research team; supervisor of limited number of postgraduate students in the project.

Dr Bernard Fourie

Citizenship: SA
Qualification: PhD
Experience: Obtained MSc from the University of Pretoria (Faculty of Science) and PhD from the University of the Witwatersrand (Faculty of Medicine). Appointed as Director of the MRC Tuberculosis Research Institute in 1990. Currently Director of the MRC Tuberculosis Research Lead Programme (TRLP). Active fields of research are in drug efficacy, clinical trials and pharmacokinetics (with Dept of Pharmacology, UCT). Also leads the TRLP's Drug Research Laboratory (Pretoria) for *in vitro* and *in vivo* drug evaluation, and a clinical trials programme established at the TRLP's Clinical and Biomedical Research Unit at King George V Hospital in Durban. Acts as Coordinator of the CDC-funded South African TB Clinical Trials Consortium which includes 12 institutional and 50 individual members. Member and Secretary of the Scientific Advisory Committee of the Global Alliance for TB Drug Development (GATB), and Executive Coordinator of the GATB office in Cape Town. Consultant to the WHO on TB drugs, diagnostics and vaccines. Member of the tuberculosis expert panel of the European Commission. Associate Editor of the International Journal of Tuberculosis and Lung Disease. Member of the Biological Committee of the Medicines Control Council of South Africa. Holds several local and international advisory committee appointments, and has published widely in the field of tuberculosis.

Contribution to project:

Validation of compounds passing first screen for *in vitro* and *in vivo* antimycobacterial activity by extended test procedures. Assist with or undertake advanced pre-clinical evaluation of candidate compounds and with identifying a potential label indication.

Dr Niresh Bhagwandin

Citizenship: SA

Qualification: PhD, MBA

Experience: Dr Niresh Bhagwandin has a PhD in Biomedical Engineering from the University of Cape Town. In 1997 he was awarded the prestigious British Chevening Scholarship to study in the UK where he obtained the degree MBA (with distinction) in Health Planning and Management from Keele University. He is currently Manager: Business Development at the Medical Research Council (MRC). He is currently chairperson of the Advisory Board of the National Laser Centre and a member of the National Research Foundation (NRF) Access Grant Committee. One of his main activities is providing management support for projects awarded through the Innovation Fund. During the past three years, he is/was involved in several multi-million rand Innovation Fund Projects. He also drives the MRC outreach programme whose aim is to transfer research skills to some of the provinces of SA. In addition, he liaises closely with local and international funders, provides client funded interface management and promotes cross-sectoral and trans-disciplinary collaboration.

Contribution to project:

Project and business management

Prof Peter Smith

Citizenship: SA

Qualification: PhD

Experience: Professor Peter Smith has a Ph.D. in Biochemistry from the University of Cape Town. He is currently a Principal Specialist Scientist in the Department of Pharmacology, University of Cape Town in charge of the analytical laboratory. He has extensive experience in drug assay development and in the pharmacokinetics of anti-TB drugs. The UCT Pharmacology laboratory is one of only three laboratories worldwide recognized by the WHO as reference centres for TB drug monitoring. With Prof Peter Folb he has supervised the laboratory-based research of the South African Traditional Medicines Research Group since its inception. His particular interest is the isolation from plants of novel antimalarial and anti-TB drugs and lead compounds.

Contribution to project:

Scientific director of UCT Pharmacology component of the programme.

Ms Denise Saravanakumar

Citizenship: SA

Qualification: MSc

Experience: Ms. Denise Saravanakumar is a Ph.D student in the Department of Pharmacology, UCT. She obtained a MSc degree from the University of the Western Cape in 2001. Her interest is in drug development, particularly from marine plants.

Contribution to project: Scientist

Prof Lafras Steyn

Citizenship: SA

Qualification: MB ChB, PhD, FC(Path)SA

Experience: Professor Lafras Steyn is the Head of the Department of Clinical Laboratory Sciences, UCT and Groote Schuur Hospital. He has an MBChB degree from the University of Stellenbosch and a PhD in Chemical Pathology (1984) from UCT. He joined the Department of Medical Microbiology in 1984 and is responsible for the establishment of a Molecular Biology Laboratory in the Department. Professor Steyn became the Head of the Division of Pathology in 1999 and was appointed as the first Head of the consolidated Department of Clinical Laboratory Sciences in 2001. He was awarded the FC (Path) by peer review in 2000. Professor Steyn's main research interests centre on the molecular biology of *Mycobacterium tuberculosis*. He and his colleagues have developed a highly specific PCR assay for *M. tuberculosis* and have identified a novel lipoprotein in this organism. He is currently involved in studies on the regulation of gene expression in Mycobacterial organisms. In particular, he and his group are studying the cold shock response in members of the Genus *Mycobacterium*. Indications are that fundamental differences exist between the environmental organisms and *M. tuberculosis*. Another aspect of his work covers the development of alternative methods to gene knockout for identifying essential genes. This approach involves modifications of the standard anti-sense RNA approach and uses RNA secondary structure to create substrates for endogenous RNases. Professor Steyn is a major recipient of funding in DACST/MRC Institutional programme and is involved in several international collaborative projects.

Contribution to project:

Leader of the UCT microbiology component of the programme.

Dr Muazzam Jacobs

Citizenship: SA

Qualification: PhD

Experience: Muazzam Jacobs obtained his PhD in Immunology from the University of Cape Town. He is currently employed as a Specialist Scientist in the Department of Immunology and has been instrumental in the establishment of the Biohazard Level – 3 facilities in the Department of Immunology and at the UCT Animal Unit. His current research focus is to investigate the relationship between *Mycobacterium tuberculosis* infection and the host immune response with emphasis on Tumour Necrosis Factors and Pathogen Recognition Receptors. Together with Dr Valerie Quesniaux (Transgenose Institute, CNRS, France), he was awarded a joint France/South Africa Science and Technology Agreement Research Grant to investigate the role of pattern recognition receptors during *M. tuberculosis* infection. He is actively involved in the supervision of postgraduate students.

Contribution to project:

Scientist; leader of the TB animal studies component of the programme.

Prof Kelly Chibale

Citizenship: Zambian

Qualification: PhD

Experience: Kelly Chibale has a PhD in Organic Chemistry from the University of Cambridge in the UK. He is currently a senior lecturer in the Department of Chemistry, University of Cape Town. He was a British Ramsay Fellow, Department of Chemistry, University of Liverpool, UK and a Wellcome Trust International Prize Fellow, Department of Chemistry and the Skaggs Institute of Chemical Biology, The Scripps Research Institute, La Jolla, California, USA. He has since held a Wellcome Trust International Research Development Fellowship (1997-2001) while at UCT. In 2002 he received the first Sandler Sabbatical Fellowship for Basic Research in Parasitic Diseases tenable at the University of California San Francisco (USA) and an Invited Professorship at Universite des Sciences et Technologies de Lille (France). He has served as a temporary Advisor to the World Health Organization (WHO) on drug discovery and development for the kinetoplastids (1999). In addition he has supervised more than 20 postgraduate (MSc and PhD) as well as postdoctoral research assistants working on various drug discovery projects in the last 5-6 years. His current research interests are in rational medicinal chemistry and include the utilization of plant-derived natural products as scaffolds for the design, discovery and development of anti-malarial and anti-TB agents. He is a recipient of international grants for drug discovery research from, amongst others, GlaxoSmithKline (UK), National Institutes of Health (USA) and the Wellcome Trust (UK). Locally he has continued to receive research support from the NRF, THRIP and Cancer Association of South Africa (CANSAs) for drug discovery research.

Contribution to project:

Leader of programme aspect dealing with the design and synthesis of chemical libraries of natural product-derivatives.

Prof Gideon F Smith

Citizenship: SA

Qualification: PhD

Experience: Prof Smith is Chief Director: Research and Scientific Services at the National Botanical Institute, stationed in Pretoria, and also Professor of Botany at the University of Pretoria. Prior to that, he was Deputy Director (1993–95) at the NBI. He has also lectured in the Plant Sciences Department at the Potchefstroom University for CHE (1986-92), and worked as a pharmaceutical chemist at the South African Bureau of Standards (1981–85). He currently holds the John Acocks Chair in the Department of Botany at the University of Pretoria. He was educated at the Universities of Port Elizabeth and Pretoria, where he obtained his PhD in 1991. The University of Pretoria awarded him the Hans Schweickerdt medal in 1985. He is involved in various professional associations and advisory committees, for example the Species Plantarum: World Flora Project Steering Committee, the General Committee of the International Association of Plant Taxonomists, and is member of more than 25 professional societies. Prof Smith was chairman of the SAAB Transvaal Branch in 1995 and currently serves on the Council of the South African Association of Botanists. He also served as President of the International Organisation for Succulent Plant Study (IOS) from 1998–2002, and is on the Advisory Panel of the ALL Species Foundation. He has arranged numerous international congresses, meetings and initiatives, including the first-ever multidisciplinary Global Taxonomy Workshop for Africa and the Outreach and Capacity Building Meeting of the Global Biodiversity Information Facility. His research interests lie in taxonomy and floristics, particularly of southern African succulent plants, and in research leadership and management. He is author or co-author of 19 books, more than 150 research papers in scientific journals and chapters in books, more than 100 semi-scientific papers and has presented more than 120 contributions at national and international conferences, many on invitation.

Dr Neil Crouch

Citizenship: SA

Qualification: PhD

Experience: Neil Crouch has a PhD in Botany from the University of Natal. He has been Ethnobotanist with the National Botanical Institute (NBI) for past eight years. Current rank: Assistant Director. Honorary Research Fellow in School of Pure and Applied Chemistry, University of Natal, Durban (1998 to present). *Main activities:* Active research (field, marketplace and literature) on botanical diversity, and plant use by (mainly) the Zulu nation, particularly in regard to ethnomedicine. Devising, publicising and implementing conservation strategies for over- and unsustainably utilised species. Public liaison, and lectures on plants of medicinal, horticultural and agronomic importance. Project leader of the National Medicinal Plants Database for South Africa (MEDBASE). Institute builder facilitating both internal cross-directorate, and outreach programmes such as the implementation of medicinal plant displays at National Botanical Gardens throughout South Africa. Networker linking tertiary institutions with the NBI in natural products, ethnopharmacological, horticultural, conservation, bioprospecting and cataloguing programmes. Support of national initiatives to sustainably use and develop local medicinal plants, including those of the National Department of Health, Department of Environmental Affairs and Tourism, and Department of Arts, Culture, Science and Technology. Currently involved in several bioprospecting consortia comprising a number of South African parastatals and universities. Postgraduate student co-supervision.

Contribution to project:

Scientist in the NBI botanical component of the programme.

Dr Maureen Wolfson

Citizenship: SA

Qualification: PhD

Experience: Obtained a PhD in Botany from the University of the Witwatersrand. Dr Wolfson is currently the Director of Research and Scientific Services at the NBI. She represented the NBI in an International Project to develop guidelines for access to genetic resources and benefit-sharing for Botanical Gardens funded by DIFID. She represented South Africa on the Expert Panel on Access to Genetic Resources and Benefit-sharing which contributed to the development of the Bonn Guidelines accepted at the 6th Conference of the Parties of the Convention on Biological Diversity. She currently serves, with representatives from the nine provinces and South African National Parks, on the National Biodiversity Working Group, chaired by the Department of Environmental Affairs and Tourism and on the National Plant Genetic Resources Committee chaired by the National Department of Agriculture. She is the project manager of a South African national project on access and benefit-sharing, funded by the Global Environment Facility (GEF), which will hopefully lead to regional harmonisation of legislation on access and benefit-sharing. Her present duties include the development of policies, procedures and codes of conduct for the NBI on access and benefit-sharing and Intellectual Property and assisting in the development of material transfer and benefit-sharing agreements and other agreements which relate to the access to biodiversity, particularly those related to IP. She is also responsible for liaising with and advising provincial conservation agencies on ABS matters.

Contribution to project:

Scientist and responsible for IP and access to genetic resource issues within the programme.

Ms Olwen Grace**Citizenship:** SA**Qualification:** BSc Hons (Natal), MSc (Natal)**Experience:** Ms Olwen Grace is Assistant Bioprospecting Investigator at the Ethnobotany Unit of the National Botanical Institute in Durban. She completed a BSc in Botany and Ethno-Economic Botany at the University of Natal in Pietermaritzburg, followed by an Honours degree, awarded *cum laude*, in 1999. In 2000 she took up a research post in the Centre for Economic Botany at the Royal Botanic Gardens, Kew, United Kingdom. Her MSc at the University of Natal was awarded in 2002 with distinction and received the Junior Captain Scott medal for best MSc in the plant sciences in South Africa. After further research at the Royal Botanic Gardens, Kew, she joined the NBI early in 2003.**Contribution to project:****Plant selection and project management assistance at NBI**

Dr Vinesh Maharaj

Citizenship: SA**Qualification:** PhD**Experience:** Vinesh Maharaj has a PhD in Organic Chemistry from UNISA. He is currently Business Area Manager at CSIR and specialises in natural products chemistry. He is a member of the Bioprospecting Programme of CSIR BIO/CHEMTEK since restructuring of CSIR during 1988. Prior experience was also in natural products chemistry at CSIR, specifically on isolation, structure elucidation and biosynthesis of Mycotoxins, from 1986 until 1988. His major responsibilities include the systematic investigation of 24 000 indigenous plants as part of a 10 year project aimed at discovering drugs from South Africa's indigenous plants. Microorganisms are also included in these investigations, which have a special focus on screening for anti-cancer drugs. In addition he manages the South African component of a major international development programme in conjunction with Phytopharm plc and Pfizer Inc, aimed at commercialising a CSIR discovery of a natural anti-obesity agent. The work includes all aspects of the drug development process, excluding supervision of clinical trials. He also manages the CSIR component of the DACST funded anti-malarial drug discovery project and manages an innovative small-scale production process of a naturally derived veterinary substance. He has four patents.**Contribution to project:**

Design and implementation of protocols for extract preparations, bio-assay guided fractionation, isolation of active compounds, structure elucidation including supporting analytical techniques. Controlled horticulture of indigenous plants proven to contain therapeutically valuable substances and subsequent production of extracts and purified compounds required for clinical evaluation in compliance with Good Manufacturing Practices

Dr Johan Louw**Citizenship:** SA**Qualification:** PhD**Experience:** Johan Louw is a Senior Specialist Scientist at the Diabetes Research Group (DRG) of the MRC. He obtained his PhD in 1995 from the Department of Physiology, University of the Western Cape. One of the objectives of the PhD project was to characterise the Vervet monkey for diabetes research. Differentiation of adult pancreatic endocrine cells and their distribution and relative volumes under conditions of normal and high fat feeding were also investigated and studies on indices of pancreatic cell proliferation were included for the investigation of possible therapies for the disease. Dr Louw has been involved with diabetes research for 15 years and has experience in animal husbandry, histology, immunocytochemistry, and all forms of microscopy, image analysis, and dietary formulation. He is also responsible for the management of all histological and physiological projects at DRG and the supervision of postgraduate students in studies on the effects of diet in the adult and *in utero*. The most recent projects involve looking for sub cellular markers for early detection of diabetes in the monkey model and the testing of indigenous plant(s) for anti-diabetic properties

Contribution to project:

Testing the efficacy and toxicity of the bioactive compound(s) isolated from plants, for the treatment of diabetes, using animal and cell culture models.

Dr Elizabeth Joubert

Citizenship: SA

Qualification: PhD

Experience: Lizette Joubert, specialist scientist of the ARC, obtained her PhD (Food Science) in 1994 from the University of Stellenbosch with a study on controlled processing of rooibos tea as alternative to the traditional method. Since then she is responsible for co-ordination and management of several multi-institutional research projects relating to antioxidant and compositional studies on rooibos and honeybush teas, amongst others. Her current main research interests are (i) the utilisation of indigenous plants for production of functional foods and nutraceuticals through exploitation of their health-promoting properties and (ii) antioxidant activity of plant constituents. She was also responsible for the development of a standardized processing method for honeybush tea, resulting in improved product quality suitable for foreign markets. In collaboration with industry she developed technology for manufacture of "green" rooibos and honeybush teas with enhanced antioxidant and antimutagenic activity and cold water soluble instant rooibos tea. She is the recipient of the 1999 ARC COUNCIL AWARD for exceptional contribution towards the ARC, Agriculture and Agricultural industry and the 1999 ARC EXECUTIVE MANAGEMENT AWARD for an outstanding achievement as member of a multidisciplinary team on Honeybush Tea Research.

Contribution to project:

Collection and preparation of plant material extraction and laboratory-scale fractionation; analytical technique for and quantification of active compound(s)

Dr Rajendra Maharaj

Citizenship: SA

Qualification: PhD

Experience: Rajendra Maharaj has a PhD in Entomology from the University of Natal. He has previous experience in heading up control programmes at the national level, for malaria as well as emerging and re-emerging infectious diseases. He serves on the national Department of Health's Malaria Advisory Group as well as the subcommittee for Vector Control. Currently he is a Specialist Scientist in the Malaria Research Lead Programme of the MRC. His main areas of interest include Vector biology and control, including integrated vector management. Improving management of malaria control programmes through the use of GIS as well as developing regional capacity towards more efficient malaria control. He has served as a temporary advisor to the WHO with regards to the use of DDT for malaria control as well as a technical advisor to the International Atomic Energy Association with regard to the Sterile Insect Technique. He is currently responsible for testing insecticidal and repellency activity against the main malaria vectors in South Africa for commercial companies as well as for the Registrar of Insecticides and is a representative on the WHO Pesticide Evaluation Subcommittee (WHOPES). He is also a principal investigator for a study to determine the extent of insecticide resistance in the mosquito vectors.

Contribution to project:

Responsible for testing plant extracts for insecticidal and repellency activity against malaria vector mosquitoes

Dr Motlalepula Matsabisa

Citizenship: SA

Qualification: PhD

Experience: Dr Matsabisa has a PhD in Pharmacology and is registered as Medical Scientist with Professional Board of Medical Scientists. He is currently the manager of the Indigenous Knowledge Systems (Health) Office (IKS) at Medical Research Council. He serves on Medicines Control Council and he represents the Complementary Medicines Working Group and African Traditional Medicines committees of Medicines Control Council (MCC). He is a member of the MCC. Dr Matsabisa is actively involved with the DNDi (Drugs for Neglected Disease initiative) project. A project that seeks to develop new drugs for development of neglected diseases. He is involved at a scientific level with the innovation fund on Antimalarial Drug Discovery Project funded by Department of Science and Technology. Motlalepula has liaised and has developed good relations with traditional communities and healers. Motlalepula has developed a protocol for fair and equitable sharing of benefits arising from the utilization of natural resources and information with traditional communities and healers. He is currently developing protocol for assessing claims for cures from traditional medicines and designing clinical trial testing protocols for traditional medicines. Dr Matsabisa has supervised a total of 10 honours and MSc students in traditional medicines research projects. He has publications in natural products, made more than 20 presentations both nationally and internationally on issues of traditional medicines, traditional knowledge, and benefit-sharing and intellectual property rights. He co-authored the Traditional Healer's Primary Healthcare handbook. Currently he holds a provisional patent on a novel compound isolated from a medicinal plant with antimalarial action and is working on a compound that reverses chloroquine resistance isolated from a traditional medicinal plant. Dr Matsabisa has won prestigious fellowships; Roche Foundation and SA/British Council Fellowships to pursue his MSc and PhD project in drug development for malaria from traditional medicines respectively. He has contributed both nationally and internationally in policy-making bodies in traditional medicines. Currently he is involved with outreach programs for the IKS office with traditional healers and schools for the Medical Research Council.

Contribution to project:

Intellectual knowledge systems; support for clinical trial development.

Prof Marion Meyer

Citizenship: SA

Qualification: PhD

Experience: Prof Marion Meyer is the Head of the Department of Botany at the University of Pretoria. His main research focus is on the isolation and identification of bioactive compounds from traditional medicinal plants. He is currently concentrating on the isolation of medicinal compounds from plants used to treat tuberculosis, malaria and other infectious diseases. He has 20 registered postgraduate students (2003), published 40 papers in peer-reviewed journals and holds three patents.

Contribution to project:

Isolation and identification of secondary compounds with activity against TB and malaria. Screening of extracts and compounds against TB and malaria.

Prof Al Louw**Citizenship:** SA**Qualification:** DSc (Agric)

Experience: Prof Abraham Louw has a DSc (Agric) degree in Biochemistry from the University of Pretoria and joined this Department in 1985 first as senior lecturer and as full professor since 1994. Prior to this he was a research associate at the Public Health Research Institute of the City of New York (1968-1971) investigating cholesterol regulatory mechanisms and a Specialist Scientist at the CSIR investigating the structure-activity relationships of snake venom cardiotoxins. He spent two Sabbaticals, one at Parke-Davis Pharmaceutical Research, Ann Arbor, Michigan, USA (1993-1994) and another at the University of Manchester Institute for Science and Technology (UMIST), Manchester, UK (2001). He is heading the malaria research group in the Department since 1997, focussing mainly on the structure-activity properties of selected malaria parasite proteins to identify parasite-specific properties useful for therapeutic intervention strategies. The molecular biology, bioinformatics and protein structural modelling facilities of the department of Biochemistry were initiated and established in the malaria research program. The structural modelling research program was selected in 2003 by the DST-appointed Scientific Advisory Committee of the National Bioinformatics Network (NBN) as a strong focus area of the University and recommended for DST funding. He is a founder member of the SA Society of Biochemistry and Molecular Biology (1973) and the Federation of African Societies of Biochemistry and Molecular Biology (1996) and served in various positions in the executive committee of the SASBMB (Vice-President and President: 1995-2000). He has supervised the successful completion of the studies of 14 PhD and MSc students since 1995 and is currently supervising the research studies of another 11 PhD and MSc students. He has published more than 50 papers in internationally accredited, peer-reviewed journals and made 42 and 73 presentations at international and national conferences, respectively, either as papers or posters.

Contribution to project:

Discovery of the mode of action and metabolic targets of non-cytotoxic, anti-plasmodial plant compounds by employing gene expression profiling methods (SSH, SAGE or DNA microarrays and proteomics) and bioinformatic analyses as well as the routine screening of malaria parasite DHFR gene-complemented yeast systems with the same compounds for anti-folate activities. The SSH method has been established in the department whereas most (not all) of the essential capital infrastructure (DNA microarray, Proteomics, Structural; Modeling and Bioinformatics Facilities) of about R30 million (which include a new building), has been installed or is on order for installation during 2003. Strong links between UP, the CSIR and the University of the North have been established.

Prof Norman Nyazema

Citizenship: Zimbabwean
Qualification: BSc (Life Sc) BSc Pharmacol PhD

Experience: Prof Nyazema is Professor of Pharmacology at the University of the North. He brings to the novel drug platform, experience from several prestigious positions that he has held during his career. These include being Chairman: Department of Clinical Pharmacology; Director: Institute of Continuing Health Education (Postgrad Medical School), Univ. of Zimbabwe; Chairman: National Drug and Therapeutics Policy Advisory Committee, Zimbabwe, Vice chairman: Medicines Control Authority of Zimbabwe; Member of the Standing Committee on Health, Research Council of Zimbabwe; Member: Zimbabwe TB Expert Committee; Member: National HIV/AIDS policy formulation team; Chairman: National Committee on Eradication of Polio; WHO Temporary Adviser and Health Consultant: Consumers International Regional Office for Africa. Main activities include research into traditional medical practice, in particular the ethno-pharmacology of most commonly used herbal and animal products in Southern Africa; Development of medical glossary of terms commonly used in various Bantu languages; Development of appropriate evaluation methods for traditional medicine, herbalism in particular; Promotion of rational use of both allopathic and traditional medicines.

Contribution to project:

Prof Nyazema's contribution to the project, apart from ethnobotany/zoology, shall be to assist in the movement from the laboratory to the clinic, a mixture of serendipity and directed exploration. He has extensive experience with the clinical part of a drug's development (Phases I – IV) and the procedures for obtaining a marketing licence.

Prof Dulcie Mulholland

Citizenship: SA
Qualification: PhD

Experience: Professor Dulcie Mulholland obtained her PhD in 1979 in Natural Products Chemistry from the University of Natal. She was appointed as a lecturer at the University of Natal in 1991 where she is now a Senior Professor and Head of the School of Pure and Applied Chemistry. She heads the Natural Products Research Group and the NMR and Mass Spectrometry Units at the University of Natal. The Natural Products Research Group comprises five academics, three technical staff and fifteen postgraduate students. Professor Mulholland has produced 15 PhD graduates and 20 MSc graduates and over 100 publications in the field of Natural Products Chemistry in the last ten years. Her record in the training of students from previously disadvantaged groups is exceptional with 14 PhD graduates and 19 MSc graduates coming from previously disadvantaged groups. She has been invited to give numerous plenary lectures at international conferences and is the recipient of a Wellcome Trust Equipment Grant for the provision of a 400 MHz NMR spectrometer.

Contribution to project:

Isolation of pure compounds using HPLC and other chromatographic techniques, determination of structures isolated using NMR (nuclear magnetic resonance) spectroscopy, mass spectrometry and synthetic techniques. Development of analytical methods. Provision of instruments (400 MHz NMR spectrometer) and GC-MS to the project.

Prof Del Kahn

Citizenship: South African
Qualification: MD, FRCS
Experience: Currently Professor and Head: Division of General Surgery, Head: Organ Transplantation and Head: Surgical Research Laboratory, University of Cape Town. Prof Kahn is also serving as President of the following bodies: Surgical Research Society of South Africa, South African Transplantation Society and African Association for the study of liver disease. His main research interests are in transplantation and liver regeneration.

Contribution to project:

Direction of the UCT immunomodulation studies component of the work

Prof Ben-Erik van Wyk

Citizenship: South African
Qualification: Ph.D. (Botany, University of Cape Town, 1989)
Experience: Prof van Wyk has 18 years experience as lecturer and professor of botany (since 1990). Author and co-author of eight books on plants (including aloes, medicinal plants, poisonous plants, trees) and some 160 research papers in peer-reviewed journals. Past students include 5 Ph.D and 8 M.Sc. Students (including 3 RAU Chancellor's Medal recipients). NRF-rated scientist (currently B2-rated); Past recipient of the NRF President's award. Experienced in new crop development and new product development, as part of a team (headed by SA druggists). This led to the first African Medicine that was developed, packed and branded in a modern (as the "Healer's Choice range"). Involved in a private company, Phyto Nova (Pty) Ltd, who developed cancer bush (*Sutherlandia*) and other plants from wild plants into crop plants and medicinal products. Since 1995 chairperson of the Indigenous Plant Use Form (NRF).

Contribution to project:

Botanical and ethnobotanical aspects, project co-ordinator

Prof Fanie van Heerden

Citizenship: South African
Qualification: Ph.D (Organic Chemistry, UOFS, 1980)
Experience: Prof van Heerden has 9 years experience in natural product chemistry research at national Chemical Research Laboratory, SCIR. Main inventor on patent of *Hoodia* compound, P57 – one of only two chemical compounds from within South Africa to be subjected to major clinical trials. Associate professor at RAU University for the past 13 years. Author of 60 scientific publications in peer-review journals. Co-author of "Poisonous Plants of South Africa". Past students include 2 Ph.D and 10 M.Sc. students (one a recipient of the S2A3 medal for M students). NRF-rated scientist (current C1-rated). A past recipient of the NRF President's award.

Contribution to project:

Chemistry (isolation and characterisation of compounds, analysis of extracts, patenting of new compounds, liaison with activity testing, design of protocols for quality control and validation).

Dr Namrita Lall

Citizenship: Indian, Permanent resident of South Africa since 1997

Qualification: PhD

Experience: Dr Namrita Lall is a lecturer in the Department of Botany at the University of Pretoria. She recently received a "UNESCO L'OREAL For Women In Science" award for her research on tuberculosis. This fellowship is only awarded to ten women in the world. She specializes in the extraction and identification of compounds from medicinal plants used to treat tuberculosis and other bacterial infections. She investigated the antimycobacterial properties of the roots of *Euclea natalensis*. She also isolated naphthoquinones and tested them at MRC for their antimycobacterial property under the collaborative supervision of the consortium members. The concentration of compounds in the plasma of mice, in a preliminary pharmacokinetic evaluation was done at UP using High performance liquid chromatography. A comparative analysis of the concentration of naphthoquinones was done in different species of plants belonging to the Ebenaceae family. The growth stage of plant at which there is maximum accumulation of naphthoquinones is also being investigated. A pilot study to investigate the efficacy of compounds and crude extract was done in mice at MRC. She has twelve postgraduate students currently, published 13 papers in peer-reviewed journals and is the inventor of one patent.

Contribution to project:

Scientist and responsible for the investigation of Pelargonium species for their antimycobacterial properties.

Dr Saartjie Roux

Citizenship: South African

Qualification: D Med Sci, HDE

Experience: Dr Saartjie Roux has a D Med Sci degree in Physiology from the University of Pretoria. Currently she is a senior lecturer in the Department of Biochemistry and Microbiology at the University of Port Elizabeth. Her current research focus is on the development and treatment of type 2 diabetes. She is involved in screening medicinal plants and plant extracts on cell lines for antidiabetic properties. She serves on the Eastern Cape Diabetic Steering Committee and the Human Ethics Committee of UPE.

Contribution to project:

Screening extracts and bioactive compounds of medicinal plants for their antidiabetic properties, using liver-, fat-, muscle- and pancreatic cell lines. The effectiveness of these extracts and bioactive compounds will be monitored when given to diabetic rats and muscle-, liver and fat tissue will be assayed.