

**SIP# 262 Round 2**

**Title:** Health Medicinal Consortium

**Acronym:** HMC

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** -

**Expertise offered:** -

**Previous FP involvement:** None

**Consortium status:** In process of being formed

**Expertise sought:** Distributors and sales outlets

**Related projects:** None

## **SIP# 264 Round 2**

**Title:** Skin to skin contact and neonatal brain development

**Acronym:** S2S

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** There is substantial evidence that human infants deprived of maternal contact are prone to develop greater negative affect and poorer psychological and physiological resilience. In mammalian studies it is firmly established that when mother-infant separation is prolonged, permanent maladaptive changes result. However, little is known of the physiological mechanisms mediating the effects of mother-infant separation on neurodevelopmental processes. A place model in which the limbic brain achieves organismal homeostasis according to distinct programmes expressed through autonomic, humoral and somatic systems is proposed. Mammalian research has established that optimal development occurs in a parasympathetically mediated programme which is maintained by the place or environment. The prolonged period of uninterrupted physical contact with the mother seen in newborn primates is an expression of this model. Separation (S) of the mother-infant dyad results in a sympathetically driven programme (along with endocrine and somatic responses), where homeostasis is achieved but with the objective of survival rather than development. This is well-established in numerous mammalian models including non-human primates. On the strength of this evidence, the aim of this project is to test the place model in the human primate by measuring indices of neonatal emotion and autonomic status. The significance of this research lies in the fact that current western obstetric and neonatal protocols are premised upon mother-infant separation which in primates, cause harm. Emotion state will be assessed according to a well-established neurophysiological model of emotional processing in the human brain in which left and right sided prefrontal EEG asymmetry reflect approach/reward-sensitive or withdrawal/punishment-sensitive affective states respectively. At the same time autonomic status will be measured according to heart rate variability (HRV). The Place model predicts that SSC will correlate with greater left sided EEG asymmetry and higher HRV while S will correlate with greater right sided EEG asymmetry and lower HRV.

**Expertise offered:** Extensive theoretical and practical experience in neonatal skin to skin contact research. Psychophysiology and neuroimaging. Clinical Neonatology Mother-infant Psychiatry Public Health Epidemiology Statistics Psychiatric Genetics Developmental/Paediatric Neurology

**Previous FP involvement:** None

**Consortium status:** We think we have most if not all the skills we need but will consider EU partners at a later stage

**Expertise sought:** As above

**Related projects:** South African national R&D programmes

## **SIP# 267 Round 2**

**Title:** Adherence to antiretroviral therapy

**Acronym:** ART

**Submitted by:**

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** Non-adherence to antiretroviral therapy (ART) invariably has a negative effect on the health and quality of life of individuals living with AIDS. The barriers to adherence to ART are poorly understood and interventions designed to enhance adherence have not been systematically tested. This research project examines the problem of non-adherence to ART in a historically disadvantaged community in the Western Cape. The first specific aim is to qualitatively examine the perceptions of medical professionals and individuals living with AIDS attending primary care clinics in terms of barriers and facilitators to treatment adherence. The second specific aim is to develop a psychometric instrument based on the themes identified in the first specific aim to measure culturally and contextually defined barriers to adherence in a larger sample of individuals living with AIDS. The third specific aim is to determine the relationship between social support, perceptions of physician-patient relationships, psychological distress, attitudes towards treatment adherence, and quality of life among persons living with AIDS. The fourth specific aim is to develop and test a psychosocial intervention programme aimed at enhancing adherence to behavioural and medication interventions with among persons living with AIDS.

**Expertise offered:** I have considerable experience in health psychology research, specifically in the behavioural correlates of HIV and AIDS. I also have expertise in both qualitative and quantitative research methods. I hold an academic position at a major South African university, Stellenbosch University and have many contacts with South African public health clinics, non-governmental organisations and community organisations.

**Previous FP involvement:** None

**Consortium status:** Does not exist yet.

**Expertise sought:** I am seeking partners who have expertise in health psychology research.

**Related projects:** None

## **SIP# 271 Round 2**

**Title:** Building malaria research capacity

**Acronym:** MALCAP

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** Thematic network on specific research questions

**Summary:** As a neglected infectious disease with a major impact in Africa, there is a need for European scientists and their African counterparts to pull together to train young researchers in the core expertise areas required for advanced malaria research. The required skills and technologies include genomics, bioinformatics, structural informatics, expression of malaria proteins in alternative hosts, medicinal chemistry, in vitro and in vivo antimalarial assays, etc.

**Expertise offered:** The South African Malaria Initiative (SAMI) has been created as a network of malaria researchers who are pooling their resources to develop an integrated programme of malaria research. SAMI offers existing organizational and management structures and a sustainable programme of research within the context of a government approved strategy. Capacity building and training of the next generation of researchers is one of the important objectives of SAMI. SAMI therefore offers an existing framework which can link to European malaria research expertise to train and develop the careers of the malaria researchers in the application of advanced technologies for malaria drug discovery, diagnostics and molecular epidemiology. Through SAMI, exciting career prospects in malaria research will be available for the young researchers with expertise in these disciplines.

**Previous FP involvement:** None

**Consortium status:** Individual linkages are in place with malaria researchers in Europe, but not specifically targeted towards building the next generation of researchers

**Expertise sought:** Need European partners willing and eager to play a leadership role in developing capacity and improving career prospects in malaria research

**Related projects:** South African national R&D programmes

## **SIP# 273 Round 2**

**Title:** Solar disinfection of drinking water for use in developing countries or in emergencies

**Acronym:** SODISWATER

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** The SODISWATER Project is a multidisciplinary research program to relieve the burden of waterborne disease in vulnerable communities in developing countries. Research institutes and non-governmental aid agencies in Kenya, S. Africa, Zimbabwe, Ireland, Spain, Switzerland and the UK, are collaborating to demonstrate that solar disinfection of drinking water is an effective intervention against a range of waterborne diarrhoeal diseases (cholera, dysentery, polio) at household level and as emergency relief in the aftermath of natural or man-made disasters. Solar Disinfection (SODIS) is a technique for making contaminated drinking water safe where transparent bottles are filled with contaminated water and placed in direct sunlight. The water is safe to drink after 6 hours exposure to the sun. The SODISWATER study will examine the health benefits associated with the use of solar disinfected drinking water among children under the age of 5 years in Kenya, S. Africa, Zimbabwe. This will be accomplished by:

- Health Impact Assessment Studies based in three African countries.
- Microbiological studies of the response of the most important untested waterborne pathogens to SODIS.
- Enhancement techniques designed to improve the efficiency of inactivation (e.g. continuous flow systems, compound parabolic collectors, photocatalytic acceleration, UV dosimetric indicators).
- Socio psychological studies about successful diffusion and behavioural change strategies for sustainable adoption of solar water disinfection.
- Dissemination strategies so the new knowledge resulting from this research reaches those most at risk from waterborne disease & benefit as quickly as possible. Research outcomes will be disseminated to the end users (local communities and relief agency coordinators) through the WHO Household Water Treatment & Storage Network, international presentations & publications.

**Expertise offered:** The proposed project will involve an international, multidisciplinary programme including: Microbiology, Parasitology, Tropical Medicine, Epidemiology & Clinical Trials, Photochemistry, Solar Engineering, Emergency medicine, Behavioural Science, Psychology, Sanitation and Water Engineering, Community Based Health Programs. The South African involvement entail coordination of the three African field studies which consist of Health Impact Assessments.

**Previous FP involvement:** None

**Details of previous FP involvement:** INCO-DEV (International Cooperation with Developing Countries): Policy implications of contamination of rural water between source and point of use in Kenya, South Africa and Zimbabwe. AQUAPOL (FP6)

**Consortium status:** The Consortium is already formed and operational

**Expertise sought:** Microbiology, Parasitology, Tropical Medicine, Epidemiology & Clinical Trials, Photochemistry, Solar Engineering, Emergency medicine, Behavioural Science, Psychology, Sanitation and Water Engineering, Community Based Health Programs.

**Related projects:** None

## **SIP# 288 Round 2**

**Title:** LTN Metricap

**Acronym:** LTNMC

**Submitted by:**

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**Theme:** Health

**Focus Area:** Optimising the delivery of health care to European citizens

**Type of project:** R&D project (small scale)

**Summary:** The company developed an innovative world first closure that allows the dispensing of an exact amount from a tube. This is essential in hormone creams, Corticosteroids where specific doses should be used. To date there was no way in which patients could comply with prescribed dosages. New developments in insulin delivery will see diabetics apply insulin dosages trans-dermally in future. This will also require specific dosages. Metricap will cater for this market. In addition to this, there is an increase focus on using dual-tubes for cosmetic, consumer goods and pharmaceutical tubed products. The reason for this is that separate compounds retain their active ingredients longer when kept separately - like the resin and hardener of certain glues that needs to be kept separately until the point of mixing. These tubes also require exact dosage closures, and more research needs to be done to solve the unique problems created by different dosage requirements, viscosity differences, effect of temperature etc. The company was started in 2000, and received venture capital funding from HBD Venture Capital. However, the demands of dealing with multi-national companies are taking its toll on the company's resources, and support from ESASTAT would be greatly beneficial.

**Expertise offered:** Many years of developing closures for tubes, and metered dose dispensing has positioned Metricap as one of the leaders in closure technology in the world. The founder is an electrical engineer with a bio-medical back ground.

**Previous FP involvement:** None

**Consortium status:** The company has one technical resource, and make use of private inventors, and industrial designers to provide additional support. Commercialisation support is provided in the form of a partner company that specialise in licensing technology.

**Expertise sought:** Flow dynamic engineering, chemical engineering, working with various semi-viscous fluids and production design expertise would be appreciated.

**Related projects:** None

## **SIP# 289 Round 2**

**Title:** Mechanism of abolition of shear stress induced vasodilation by hyperglycaemia

**Acronym:** MASSIV

**Submitted by:**

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** Previously it has been shown that hyperglycaemia abolishes shear stress induced nitric oxide production by disruption of the endothelial glycocalyx. However, the mechanism behind this disruption needs further examination. It has been shown that hyperglycaemia can induce production of reactive oxygen species which in turn can stimulate release of tumour necrosis factor alpha. It has also been shown that TNF alpha can disrupt the glycocalyx, therefore I propose that hyperglycaemia induced disruption of the endothelial glycocalyx is mediated by TNF alpha. I propose doing this by repeating the experiments previously carried out in the pig, but in the presence of inhibitors of TNF alpha and reactive oxygen species. I would also do Western blots to check expression of TNF alpha.

**Expertise offered:** I have experience in setting up the Iliac artery preparation in which these experiments were carried out previously in the pig. Our lab has been successful in doing Western blots for TNF alpha and has done a lot of work on TNF alpha.

**Previous FP involvement:** None

**Consortium status:** Professor HM Snow , University College Cork, Ireland, Prof MIM Noble , University of Dundee, Scotland

**Expertise sought:** These two people were involved in the initial experiments involving the iliac preparation to look at the effects of hyperglycaemia on the glycocalyx. Also, the equipment necessary to carry out the in vivo part of this project is currently in University College Cork.

**Related projects:** None

## SIP# 290 Round 2

**Title:** Effect of arterial luminal homocysteine on shear stress and nitric oxide mediated dilatation

**Acronym:** EHSN

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** Moderately raised plasma homocysteine concentrations are a known cause of coronary artery disease, promoting endothelial dysfunction and thrombosis (Al-Obaidi et al, 2000). Arterial endothelium is separated from blood by the 0.5µm thick glycocalyx. Shear stress-induced, nitric oxide mediated, arterial dilatation is inhibited by raised intra-luminal glucose with preservation of the response to acetylcholine, implying impaired glycocalyx mechano-transduction. The aim of the study is to test whether shear stress-induced arterial dilatation is inhibited by hyperhomocysteinaemia with preservation of acetylcholine sensitivity. Experiments will be carried out in the anaesthetised pig in which pressure, blood flow and diameter of the left iliac artery are measured. A proximal site provides control responses to increased shear stress and acetylcholine injection. A distal site is temporarily occluded to allow hyperhomocysteinaemic blood to be introduced into the lumen, and the subsequent changes in responses recorded. These will be compared with the effect of systemic hyperhomocysteinaemia.

**Expertise offered:** I have experience in setting up the Iliac artery preparation in which these experiments were carried out previously in the pig.

**Previous FP involvement:** None

**Consortium status:** I have experience in setting up the Iliac artery preparation in which these experiments were carried out previously in the pig. Professor HM Snow , University College Cork, Ireland, Prof MIM Noble , University of Dundee, Scotland.

**Expertise sought:** These two people were involved in the initial experiments involving the iliac preparation to look at the effects of hyperglycaemia on the glycocalyx. Also, the equipment necessary to carry out the in vivo part of this project is currently in University College Cork.

**Related projects:** None

**SIP# 297 Round 2**

**Title:** Anxiety disorders

**Acronym:** Anxiety

**Submitted by:**

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** Thematic network on specific research questions

**Summary:** Our group focuses on the psychobiology of anxiety disorders, including posttraumatic stress disorder. Projects within our group range from basic animal models, through to genetics and imaging work, and on to treatment trials (typically pharmacotherapy). We would be enthusiastic partners of a European proposal in this area.

**Expertise offered:** We have experience in animal models of stress and fear conditioning, in structural and functional brain imaging (we have a new 3T MRI magnet available), in genetics in isolated populations, and in clinical trials.

**Previous FP involvement:** None

**Consortium status:** Preliminary conversations at present.

**Expertise sought:** Partners with similar interests.

**Related projects:** International bilateral cooperation  
South African national R&D programmes

## **SIP# 307 Round 2**

**Title:** Endocrine disruptive chemical (EDC) activity and health effects of identified Veterinary compounds in surface and ground water.

**Acronym:** EDCs

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** The research objectives of the project are focused on the quality of water sources that surround the location of cattle feedlots. A Feedlot is a type of concentrated animal feeding operation, which is used for fattening livestock, notably beef cattle, prior to slaughter. These feedlots may contain thousands of animals in an array of pens. Apart from the natural hormones excreted by the husbandry animals, feedlot cattle are fed hormones and antibiotics to curb disease and also to promote growth. The fate of excretions of these animals is the major focus of the first phase of the project. Since 1998, feedlots in South Africa are required to be registered and a proper Environmental Impact Study (EIA) is required before the establishment of the feedlot. The objectives of this phase are: 1) to determine which feedlots might pose a risk to the quality of the water in terms of the data available on the geographical information system (GIS). 2) to identify high risk areas (points), that can be used to identify possible contamination resulting from the husbandry practices: 3) to identify which parent, or metabolites of both natural or synthetic hormones should be monitored during the chemical analysis. The Main Study will consist of five phases. Phase 1 (OP Vet Inst; SHSPH, UP) will include the collection and chemical analyses of samples. Phase 2 & 3 (Urology, UP) will be the bio-assay for endocrine disrupting activity in the water samples and identified veterinary compounds, respectively. Phase 4 (SHSPH, UP) will be the reproductive toxicology study in rats using the identified mixtures of veterinary compounds and Phase 5 (Zoology, UJ; Urology, UP) will be the aquatic toxicology studies.

**Expertise offered:** Reproductive Toxicology studies, using rat model. Bio-assays for Endocrine Disruptor activity.

**Previous FP involvement:** None

**Consortium status:** Collaboration

**Expertise sought:** Veterinary & Pharmaceutical compounds & Health

**Related projects:** None

## **SIP# 311 Round 2**

**Title:** Mineral Nutrients in Reproductive Disorders

**Acronym:** Hair

**Submitted by:**

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** Diet, socio-economic status and environmental effects are often interrelated, contributory factors to reproductive disorders. Mineral nutrients are recognised as essential components for the biochemical processes central to normal reproduction -both with regard to conception and pregnancy outcome. In addition there is considerable evidence of perinatal disorders being associated with altered maternal mineral nutritional status. Hair analysis offers a reproducible and stable assessment of longterm nutritional status. This project investigates nutritionally important mineral elements in a number of conditions associated with disturbances of reproductive outcome. Hair samples from patients and in the case of pregnancy disturbances, their infants will be obtained for chemical analysis of relevant minerals. This analysis will be performed, using inductively coupled plasma mass spectrometry (ICPM) in the Dept of Analytical Chemistry at the University of Hull, UK. Studies will include several to assess the impact of environmental pollutants eg. Lead from petrol on women and their infants and the investigation of a number of disorders of reproduction. The latter studies will include investigation of recurrent and sporadic miscarriage, abruptio placentae, preterm labour and infertility secondary to abnormal semen parameters. Appropriate control subjects will be recruited for all the studies. It is anticipated when nutrient abnormalities are identified that the investigation of the impact of nutritional intervention will follow to assess whether this will result in improved clinical outcome. Some of the studies have already been commenced eg recurrent miscarriage in a UK population (completed) and a multicentre study of the impact of leaded vs unleaded petrol in 4 different countries (in process) Studies on miscarriage and male infertility have received Ethics Committee approval and may now proceed in South Africa.

**Expertise offered:** These studies form part of the research collaboration between Dr Stephen Lindow of the University of Hull, UK, and Professor Zephne van der Spuy of the Reproductive Medicine Unit in the Department of Obstetrics and Gynaecology University of Cape Town /Groote Schuur Hospital. Chemical analysis of the hair is performed under the supervision of Professor Stephen Haswell of the Department of Analytical Chemistry at the University of Hull. The methodology used was developed by his department. This collaboration offers the input of senior clinicians who have considerable research experience. They will be able to recruit subjects for the studies and arrange the intervention studies. There is also essential laboratory and technical expertise available between the centres which will ensure the success of the studies. The preliminary studies which have been carried out by this collaboration indicate the feasibility of continuing this association and expanding the work.

**Previous FP involvement:** None

**Consortium status:** At present adequate expertise is available from the collaborators to ensure successful execution and completion of the studies.

**Expertise sought:** Expertise is available to undertake the studies, provided the association between the two centres continues.

**Related projects:** None

## **SIP# 312 Round 2**

**Title:** An investigation of the genetic basis of uterine fibroids

**Acronym:** FIBROGENE

**Submitted by:**

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project (small scale)

**Summary:** Uterine fibroids are the most common tumour in women of the reproductive age group. Familial predisposition to uterine fibroids has been reported and moreover fibroids are more common in black than white women. Black women tend to present younger, with more extensive disease, worse symptoms and are more likely to undergo a hysterectomy for this condition. Uterine fibroids are therefore an important cause of reproductive ill health in Africa. This is a collaborative project between the University of Cape Town, the University of Oxford and Cancer Research UK in London. Identifying the genetic basis of uterine fibroids can allow genetic screening to predict disease risk and/or severity and may result in new preventative measures or therapy. In this study we aim to collect constitutional and tissue-derived DNA samples from 2000 women with symptomatic fibroids and from the same number of age- and ethnicity- matched controls without fibroids. This sample size would provide 80% power at  $p=0.05$  to detect a genotype of frequency 0.5. The samples will be screened for variants in functional candidate genes including the multiple leiomyomatosis gene and subject to funding, a high-density genome-wide SNP screen will be performed on the samples to identify new fibroid predisposition alleles. Women who present with symptomatic fibroids and who are undergoing surgery will be asked to contribute to this study. A brief history will be taken, the clinical findings will be documented and tissue and blood collected for DNA extraction. Control subjects who do not have fibroids will be recruited and matched for age and ethnicity. The clinical care of women participating in the study will not be affected. Ethics Committee to perform these studies has been granted and we have started collection of tissue and blood. Limited funding for collection of tissue has been made available through a grant from the NRF (to Zephne van der Spuy). Funding to do the genotyping and to employ suitable assistance is required.

**Expertise offered:** The overall aim of this collaboration is ultimately to create a facility at the University of Cape Town to study the molecular genetics of benign gynaecological conditions. The South African group has substantial scientific and clinical expertise in these fields and access to large patient populations. Collaboration with other centres in South Africa may be developed to increase recruitment. At present the study involves the Departments of Obstetrics and Gynaecology and Human Genetics at UCT. The UK collaborators have considerable experience in the investigation of the genetic basis of common diseases and can offer laboratory expertise and training. Professor Ian Tomlinson, CancerUK, has been involved in research in this area for many years and has been part of this project since its initiation. To date he has provided all the laboratory input for genotyping.

**Previous FP involvement:** None

**Consortium status:** Collaboration offers appropriate expertise and experience to complete study with the present participants

**Expertise sought:** At present further partners are not sought

**Related projects:** South African national R&D programmes

## **SIP# 313 Round 2**

**Title:** Polymeric nanodrug delivery systems for delivery of anti-TB drugs

**Acronym:** NDDS-TB

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** Approximately 250 000 new cases of TB occur in South Africa annually. A major reason for the escalation of the TB epidemic is the evolution of the AIDS epidemic. Although an effective therapeutic regimen is available, patient non-compliance, due the long duration of treatment, results in treatment failure. It is important to note that not a single new class of anti-TB drugs (ATDs) has entered the market over the past 40 years. The field of drug development continuously experiences a very low success rate with regards to drugs that enter the market. The reasons for this shortfall are mainly factors such as toxicity and low solubility leading to lowered bioavailability and thus reduced efficacy of the therapeutic compounds and the emergence of MDR and XDR TB strains. To address these shortfalls, carrier systems have been developed that can protect the drugs from degradation before reaching the target tissues, increase the bioavailability of the drugs and reduce side effects. The TB drug delivery project seeks to develop a carrier system whereby drugs can be administered in a single dose that maintains an active level (minimum inhibitory concentration – MIC) for a number of days. In addition, we aim to increase the bioavailability of the drugs, reduce the dosage and dose frequency. Our team has synthesised solid nanoparticles with poly (lactide-glycolide) and alginate/Chitosan of an average size of 250 nm. We have encapsulated both hydrophobic and hydrophilic ATDs, with an average encapsulation efficiency of 65%. Various encapsulation techniques have been explored in collaboration with international collaborators, however once an optimal system has been obtained, it will then proceed to pre clinical and clinical trials, which will be performed at the South African Medical Research Council where a team of experienced will be involved. Another area that our team is currently exploring is targeted delivery of ATDs to TB infected macrophages.

**Expertise offered:** 1. Well equipped and accredited facilities to perform studies with animal models of TB (Mice and Guinea pigs). Researchers that are qualified and accredited to work with these animals are also available. 2. Due to the high prevalence of TB, we have access to large population groups to perform clinical trials. 3. The project consortium also has members that have performed numerous clinical trials and are experts on this field and well as the pathogenesis of TB. 4. Our team has expertise in encapsulation techniques listed below as well as access to equipment for the characterisation of nano encapsulation material such as AFM, SEM, NMR, FT-IR a. Double emulsion solvent evaporation b. Super critical carbon dioxide c. Nano precipitation d. Double emulsion spray drying

**Previous FP involvement:** None

**Consortium status:** Ecole Polytechnique Federal Lausanne, (LMRP), University College London (School of Pharmacy), Nottingham Unviersity (School of Pharmacy), Cardiff Univeristy (School of Pharmacy)

**Expertise sought:** Drug delivery systems, pathogenesis of TB

**Related projects:** International bilateral cooperation  
South African national R&D programmes

## **SIP# 314 Round 2**

**Title:** Neglected zoonoses

**Acronym:** NeZoo

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** The project is aiming at addressing the mentioned parasitic, viral and bacterial zoonoses in thried world countries in Africa, Asia and South America. Both pratctical and theoretical training will be forseenthe 3 major issues are: 1. To set up of a relliable databank on the occurence and importance of these zoonoses 2. To set up a testing stategy that fits into the local epidemiology of the diseases and the goals to be achieved (eradication vs control): the fit for purpose concept 3. To develop new strategy for the control of these diseases (for example the use of vectors expressing protective antigens from different pathogens (for example vectorisation of Brucella vaccine starins with Mycobacterium bovis strains)

**Expertise offered:** We have expertise in the bacterial zoonoses: brucellosis, bovine tuberculosis and anthrax

**Previous FP involvement:** Yes

**Details of previous FP involvement:** 2 EU Fair projects: 1. False positive serological reaction in calssical brucellosis serological tests and 2. Development of a new anti brucellosis vaccine for man and animals

**Consortium status:** We have been contacted by 2 prospective partners in Europe: the Norwegian Veterinary School, Oslo, Norway and The Institute of Tropical Medicine, Antwerp, Belgium

**Expertise sought:** These European partners have experise in respectively, epidemiology (Norway) and Parasitic diseases (Belgium) and importantly have their network of collaborative institutions in Africa, Asia and Latin America. A meeting will be scheduled in Brussels. All the propsective partners will sit around the table in order to address the different issues in the 3 continents.

**Related projects:** COST

## **SIP# 318 Round 2**

**Title:** The development and evaluation of technology and intervention strategies for people with severe communication disabilities

**Acronym:** CAAC

**Submitted by:**

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** Thematic network on specific research questions

**Summary:** The Centre for AAC (CAAC) has been in existence for the past 16 years and specialises in research and development of strategies (technology focused and training solutions) to facilitate communication of people with limited or no speech. The main focus of the work is on the application and critical evaluation of technology and other strategies across a broad range of etiologies (congenital and acquired problems).

**Expertise offered:** The CAAC consist of 12 professionals representing speech-language therapist, occupational therapists, educators and people with severe disabilities. The expertise is focused on functional communication strategies and inclusion of people with severe communication problems in daily contexts e.g. school, home and employment. We are highly skilled in training of professionals and community members in how to integrate communication technologies in daily life activities.

**Previous FP involvement:** None

**Consortium status:** Currently not involved in a project

**Expertise sought:** We are interested in being involved, but currently are not part of a project.

**Related projects:** None

## **SIP# 319 Round 2**

**Title:** The development and evaluation of technology and intervention strategies for people with severe communication disabilities

**Acronym:** CAAC

**Submitted by:**

Erna Alant

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**Theme:** Health

**Focus Area:** Biotechnology, generic tools & technologies for human health

**Type of project:** Thematic network on specific research questions

**Summary:** The Centre for AAC (CAAC) has been in existence for the past 16 years and specialises in research and development of strategies (technology focused and training solutions) to facilitate communication of people with limited or no speech. The main focus of the work is on the application and critical evaluation of technology and other strategies across a broad range of etiologies (congenital and acquired problems).

**Expertise offered:** The CAAC consist of 12 professionals representing speech-language therapist, occupational therapists, educators and people with severe disabilities. The expertise is focused on functional communication strategies and inclusion of people with severe communication problems in daily contexts eg. school, home and employment. We are highly skilled in training of professionals and community members in how to integrate communication technologies in daily life activities.

**Previous FP involvement:** None

**Consortium status:** Currently not involved in a project

**Expertise sought:** We are interested in being involved, but currently are not part of a project.

**Related projects:** None

## **SIP# 326 Round 2**

**Title:** HIV-1 and the Gastrointestinal Tract

**Acronym:** PREMPT

**Submitted by:**

Sharon Cassol

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**Theme:** Health

**Focus Area:** Translating research for human health

**Type of project:** R&D project, including technology demonstration (large scale)

**Summary:** Immune pathogenesis, impact of HIV-1 on inflammatory/anti-inflammatory response - exact project to be refined and finalized

**Expertise offered:** Immunology, molecular virology, treatment/prevention of HIV-1/AIDS

**Previous FP involvement:** None

**Consortium status:** Partners include: R Shattock, O Pybus, A. Rambaut (UK); G Poli, Alfano, E Cassol (Italy); S Cassol, W Preiser, T de Oliveira, bioinformatics, C Seebregts, C Van Rensberg, M Cotton (South Africa)

**Expertise sought:** World class expertise in immune pathogenesis, bioinformatics and molecular evolution

**Related projects:** South African national R&D programmes