Center for Geographic Medicine
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MedUni Vienna is covering new ground with the recently set up Center for Geographic Medicine. For the first time the competences in dermatology, tropical medicine, immunodermatology, infectiology and ophthalmology are being bundled together to create the required basis to study and create corresponding treatments for local diseases in developing countries and also to use this efficiently with MedUni's own technology such as the biobank.

For years MedUni Vienna has been working successfully in the field of tropical medicine and infectiology in newly industrialising and developing countries – many other fields have also made partial contributions in third world countries to raise health standards and standards of treatment and therefore also the survival rate.

Together with our international subsidiary MUVI we want to expand this knowledge transfer in the future and therefore also apply a form of corporate social responsibility. This is help which a Western industrialised country with one of the best medical schools in Central Europe is happy to provide in uncomplicated fashion. I would like to thank all participants and initiators and wish all of us much success!

Wolfgang Schütz
Rector of the Medical University of Vienna

One of the challenges in medicine is the development of successful prophylactic treatment strategies against old infectious threats as well as new emerging diseases and the implementation of improved therapeutic approaches against pathogens which have become resistant to standard medications thereby causing a medical problem of global concern. The Medical University Vienna has dedicated one of its research programs to prophylaxis and therapy against infectious diseases with high socioeconomic pressure focusing on translation of basic research into clinical application. Therefore, I have encouraged the implementation of a "Center for Geographic Medicine" to concentrate and synergize the research activities and know-how at our University in the field of Infectiology and Preventive Medicine. The intention is to enforce cooperation in the field of infectious diseases between universities and institutions in different parts of the world for the exchange of research results and education strategies and to implement health programs with sustained value. The Center may also function as a communication and consultancy platform in questions of disaster management and emergency relief thereby fulfilling an important social and medical responsibility.

I wish all participants of the new Center for Geographic Medicine at Medical University Vienna to all possible success to establish this important and innovative project.

Christoph C. Zielinski
Initiator - Center for Geographic Medicine
In autumn 2009 the Kick off Meeting for implementation of the “Center for Geographic Medicine” took place at the Medical University of Vienna. There was an immediate positive response from colleagues having clinical and research interest in infectious diseases with global impact.

We are convinced that this center is a great opportunity for all of us to combine and synergize our skills and know-how thereby establishing new cooperations and research projects in different areas of the world. With the support of the Medical University Vienna and the Medical University Vienna International, we hope that our activities will be of greater visibility as well as of increased assertiveness.

We further invite all colleagues with interest in “Geographic Medicine” to join this platform and contribute to the success of this initiative!

Looking forward to an exciting research collaboration,

Ursula Wiedermann-Schmidt  
Speaker of CGM  
Stefan Winkler  
Deputy Speaker of CGM
Geographic Medicine

**DEFINITION GEOGRAPHIC MEDICINE**

- Interdisciplinary research efforts on scientific and clinical questions of global importance
- Provide Know how and academic potential (Clinics, Research, teaching programs) to countries without respective resources
- Implementation of sustained projects and infrastructure

**AIMS OF GEOGRAPHIC MEDICINE**

- Merging of common research interests within the MedUni Vienna related to diseases of worldwide significance in order to generate synergisms in scientific expertise, to improve the use of already existing infrastructure and to strengthen the international visibility for major funding agencies [EU, Bill & Melinda Gates Foundation etc]
- Establishment of premier training programs at the MedUni Vienna in cooperation with MUVI and hospitals and Universities from developing countries (Africa, South East Asia etc) in order to strengthen capacity building both in Europe and in international partner institutions
- Establishment of PhD programs and scientist exchange programs in the field of Geographic Medicine
- Establishment and Implementation of a Master's program for Geographic Medicine and Vaccinology

**RESEARCH GROUPS & MEMBERS**

in alphabetical order

- **Dermatology: Tropical skin diseases & Telemedicine**, Michael Binder [1]
  Robert Loewe
- **Disease Prevention & Vaccination**, Ursula Wiedermann [2]
- **Experimental Tropical Medicine & Field Research**
  Malaria research in Asia; MARIB
  Harald Noedl [3]
- **Immunodermatologie: HIV**
  Katharina Grabmeier-Pfistershammer [4]
  Armin Rieger [5]
- **Infectious Diseases & Tropical Medicine**
  Fieldstudies Malaria, Lambarene, Ethiopia: Michael Ramharter [6]
  Tuberculosis worldwide: Stefan Winkler [7]
- **Ocular Inflammation & Infections**
  Talin Barisani [8]
- **MedUni Vienna Biobank**
  Thomas Perkmann [9]
- **Medical University of Vienna International Health Care Management**
  Elisabeth Chalupa-Gartner [10]
**Disease Prevention & Vaccination**

**Ursula Wiedermann**  
Institute of Specific Prophylaxis and Tropical Medicine, Medical University Vienna

**Skills**

**Research**
- Clinical vaccination trials (Phase I-IV)
- Immunological characterization of vaccine responsiveness
- Identification of vaccination failures and management of clinical consequences
- Development of new vaccination strategies against infectious diseases, allergies and cancers
- Preclinical testing of new vaccines
- Development of new routes of vaccination - “needle less vaccines”
- New concepts for mucosal vaccine delivery systems (adjuvants, vehicles, immunomodulators)

**Public Health**
- Austrian Reference Center for Vaccination, Travel and Tropical Medicine
- Member of the Advisory Committee for Vaccination Practise (ACIP) of the Ministry of Health
- Elaboration of recommendations for the national vaccination programs by the Austrian ACIP
- Establishment and elaboration of national recommendation for vaccination programs in travel medicine
- Survey of national infectious diseases and parasitological infections

**Tools**
- Outpatient clinic for vaccination, travel and tropical medicine
- Serological and parasitological diagnostics
- Research unit for immunological and molecular biological studies in vaccinology
- Experimental animal models for infectious diseases, allergies and tumors
Disease Prevention & Vaccination

Vision

- Improved collaborations between preclinical and clinical studies in the field of Infectiology/Tropical Medicine and Vaccinology/Preventive Medicine
- Translational research from bench to field site: influence of coinfections and nutritional status on vaccine responses and improvement of vaccine responsiveness
- Comparative assessment of vaccination programs in westernized and developing countries
- Implementation of education and research programs in vaccinology and preventive medicine according to the international ACIP recommendations in socially poor countries

Cooperations

- Austrian Ministry of Health
- Advisory Committee of Immunization Practise of the National Supreme Board of Health
- International Vaccine and Nutrition Companies
- Immunological Research Institutions in UK, Netherlands, Germany, Switzerland, Sweden (Univ. Edinburgh, Univ. Leiden, Univ. Marburg, Univ. Gothenburg)
- Thammasat University, Bangkok, Thailand

VACCINATION - A SUCCESS STORY OF MODERN MEDICINE

Vaccination is the most effective measure to prevent and control diseases, both with respect to benefit-risk and benefit-cost ratio. The best example of successful disease eradication via vaccination is the WHO small pox eradication program resulting in a small pox free world since the 1980s. Today’s limitations of vaccination programs and vaccine development might be explained by three causes: Firstly, in the westernized world a constant increase in underutilisation of vaccines due to underestimation of the benefits of vaccination and overestimation of potential side effects has occurred. On the other hand, in developing countries, where many vaccine preventable diseases remain a serious medical problem, the success of the vaccination programs is often limited by logistic and financial capabilities. Secondly, insufficient immunological responses to certain vaccine antigens might occur and limit the effectiveness of certain vaccines. In developing countries the effectiveness of particularly oral vaccines is often dampened which might be caused by coexisting infections with general immune depriving effects. The complexity of certain pathogens due to antigen diversity and variation or week immunogenicity may present the third reason for nowadays challenges in vaccine development.

Within the Center for Geographic Medicine comparison of the effectiveness of vaccines and underlying immunological characteristics within different areas is of interest, since this knowledge might improve recommendations for population and area tailored vaccination schedules. Our goal is the development of novel and/or more efficacious vaccines in a translational matter from preclinical studies to clinical application.
Talin Barisani-Asenbauer
Laura Bassi centre for Ocular Inflammation & Infection, Institute for Specific Prophylaxis & Tropical Medicine, MedUni Vienna

**Skills**
- Expertise in ocular inflammation & infections
- Focus on innate immunity of the ocular surface
- Focus on ocular manifestations of systemic diseases and infections

**Laura Bassi Centre of Expertise –LBCE OCUVAC:**
- 3 senior scientists
- 2 PhDs
- 1 project manager
Expertise in microbiology, histology, ecology, molecular biology, zoology, chemistry, animal models, biotechnology and project management

**Main research focus:**
Trachoma, Acanthamoeba Keratitis, ocular Tuberculosis, ocular Toxoplasmosis, ocular vaccine strategies

**Tools**
- Unit for patient examination & care at the SPTM
- Establishment of SOPs for diagnosis and treatment of ocular inflammation & infection
- Establishment of animal models for ocular inflammation & infection and vaccination studies
- Laboratory facilities for:
  - Ocular cell culture for diagnosis and research
  - Immunohistochemical techniques
  - Preparation of samples for diverse microscopic techniques
  - Microscopic techniques including laser scanning microscopy, electron microscopy (joint use) & tissue faxes (joint use)

**Vision**
- Establishing a Reference Centre for Diagnosis and Treatment of Ocular Inflammation & Infections
- Sustained Research in Geographic Ophthalmology with focus on co-infections, nutrition, climate and ecology
- Collaboration with developing countries: knowledge transfer, joint research for mutual benefits, improving awareness for ethical issues
- Interdisciplinary projects within the Geographic Medicine Platform

**Cooperations**
- Laura Bassi Centres of Expertise
- V2020 Austria
- Austrian Committee for International Ophthalmology of the Austrian Ophthalmological Society
- Austrian Committee for Uveitis, Allergy, Ocular Inflammation & Infection of the Austrian Ophthalmological Society
- International Ocular Inflammation Society (IOIS)
- Journal of Ophthalmic Inflammation & Infection
- International Society for Geographical and Epidemiological Society (ISGEO)
- WHO Prevention of Blindness and Deafness
Infectious Diseases & Tropical Medicine

Stefan Winkler
Department of Medicine I, Division Infectious Diseases and Tropical Medicine, Medical University of Vienna

Skills

- Immuno-diagnosis of tuberculosis
- Immunology of major infectious diseases
  - Tuberculosis:
    - European-African-Asian differences in TB-specific immune responses
    - Mycobacterium tuberculosis-parasitic co-infections, models and influence on immune and vaccine responsiveness
    - Influence of vitamins and micronutrients on TB-specific immune responses and clinical disease
  - Malaria:
    - Evaluation of Plasmodium falciparum-specific immune responses, immuno-regulatory mechanisms

Tools

Department of Medicine I, Division of Infectious Diseases and Tropical Medicine, Medical University of Vienna:
- laboratory facilities
- clinical infectiology

Tropical Diseases Study Group: Medical Research Unit, Albert Schweitzer Hospital, Lambaréné, Gabon:
- laboratory facilities
- clinical tropical medicine

Vision

- Establishing a multidisciplinary platform for the study of globally important diseases
- Establishing sustained research and scholar programmes in cooperation with national and international partners
- Exploring the influence of co- or multi-parasitism on pathogen- and vaccine-specific immune responses

Since 1992 the Division of Infectious Diseases and Tropical Medicine of the Medical University of Vienna is working in cooperation with the Medical Research Unit of the Albert Schweitzer Hospital in Lambaréné, Gabon. Malaria research became one major focus of this work. A series of studies on the epidemiology of malaria and the clinical development of novel antimalarials and antimalarial combination therapies have been performed. Since then immunologic studies on malaria and other parasitic diseases have been interest of the study group. More recently studies on the immunology of tuberculosis and the potential implementation of immunologic methods for improved diagnosis of tuberculosis became a further area of interest.

The activities of the study group cover diverse topics in international health, parasitology, and infectious diseases. The principal aim is to address clinically relevant problems by novel molecular and immunological techniques to improve patient management.
Michael Ramharter  
Dept. of Medicine I, Div. Infectious Diseases and Tropical Medicine, Medical University of Vienna

**Skills**

Preclinical and clinical drug development in the field of tropical diseases  
- In vitro screening of novel compounds  
- Phase I-III drug development studies for new drugs for infectious diseases  
- Drug resistance of P. falciparum

Mother-child health care in the tropics  
- Evaluation of disease prevention programmes in the tropics  
- Development and clinical evaluation of novel prevention strategies for women in pregnancy and the puerperium  
- Gender medicine in the area of tropical diseases

**Epidemiology of tropical diseases**
- Burden of infectious diseases in sub-Saharan African communities  
- Parasitic and bacterial coinfections: interaction and clinical implications  
- Molecular epidemiology of infectious diseases

**Tools**

Infectious Disease Control Group  
Medical Research Unit, Albert Schweitzer Hospital  
- Laboratory facilities,  
- Out-patient and in-patient services

Gedamaytu, Ethiopia  
- Development collaboration with east Ethiopian Community  
- Health post in Ethiopian community
In 2007 the Medical University of Vienna started a development cooperation project for a health station with the Eastern Ethiopian city of Gedamaytu.

For a good 10 years the Vienna Professor of Anthropology and former university council member Dr. Horst Seidler has been carrying out research in Eastern Ethiopia. Wolfgang Schütz, Rector of MedUni Vienna supported the establishment of basic healthcare in one of the poorest regions in the world from the very start. MedUni Vienna is therefore the first international institution providing aid for this region. “Our 3-pillar principle of research, teaching and patient care gains a new dimension when we have the opportunity to provide our knowledge to the people in one of the poorest countries in the world to help improve their healing facilities and quality of life.”

In February 2009 the Medical University of Vienna carried out a basic epidemiological cross-sectional study in order to record the frequency and distribution of the most important diseases and conditions and to analyse the possibilities of improving the local health system.

Dr. Regina Vargha (Department of Paediatrics), Priv. Doz. Dr. Michael Ramharter and Dr. Heimo Lagler (both Department of Medicine I) travelled to Ethiopia to analyse the medical requirements. New possibilities for cooperation and aid for the existing CSR project – running a health station – are sounded out currently.
Experimental Tropical Medicine & Field Research

Harald Noedl
Institute of Specific Prophylaxis and Tropical Medicine, MedUni Vienna, MARIB - Malaria Research Initiative Bandarban, Bandarban Sadar Hospital, Bandarban, Bangladesh

Skills
- GCP compliant clinical drug development trials (emphasis on Phase II-III)
- Preclinical drug development (in silico to clinical application)
- Antimalarial drug resistance research (clinical, ex vivo, molecular)
- Epidemiology of malaria and febrile illnesses
- Basic and laboratory-based research on various tropical diseases
- Quality assurance and development
- Training workshops for students, technicians, and physicians in diagnosis and management of tropical diseases as well as in advanced research methods with the ultimate goal of providing sustainable medical and research infrastructure and training facilities for scientists from Austria and Bangladesh.

Tools
MARIB Research Center
Tropical disease research center in the Chittagong Hill Tracts in southeastern Bangladesh comprising clinical and advanced research facilities:
- Outpatient department focusing on malaria and infectious diseases
- Inpatient facilities in close collaboration with the Bandarban District Hospital
- Clinical laboratory in support of the OPD and inpatient care
- Research laboratory in support of clinical and experimental research

Permanent Staff
Under the direction of H. Noedl the MARIB Research Center comprises a staff of over twenty professionals dedicated to tropical disease research: physicians, lab scientists, and students from the Medical University of Vienna, as well as a team of physicians, nurses, pharmacists, and field workers employed by MARIB in Bangladesh.
Vision

A BRIDGE BETWEEN RESEARCH AND DEVELOPMENT IN ONE OF THE POOREST COUNTRIES OF THE WORLD

The ultimate goal of MARIB is to provide sustainable development through research in one of the poorest and most remote areas of the world. In the future we hope to be able to further expand our capacities, in terms of personnel and logistics to provide the basis for

- Clinical, epidemiological, and basic research on tropical diseases
- Essential diagnostics and health care for the local population
- Training for Austrian and local students and medical doctors

Collaborations

The history of MARIB has been a success story firmly based on numerous excellent collaborations with our partner institutions within Bangladesh and worldwide.

- US: Johns Hopkins University; Walter Reed Army Institute of Research; University of Maryland; University of South Florida
- Bangladesh: Ministry of Health and Family Welfare, Dhaka; Chittagong Medical College; ICDDR,B; Bandarban Sadar Hospital
- Thailand: Mahidol University; Thamassat University; Ministry of Public Health; AFRIMS
- International: World Health Organization; Oxford University; WWARN; Sonne International

SPOT ON:
MARIB RESEARCH CENTER
CHITTAGONG HILL TRACTS,
SOUTHEASTERN BANGLADESH

The Malaria Research Initiative Bandarban traces its origins to the year 2002 when the first collaborative malaria project between the Armed Forces Research Institute of Medical Sciences in Bangkok (H. Noedl) and the International Centre for Diarrhoeal Disease Research, Bangladesh (R. Haque) was established at an ICDDR,B laboratory in Chakaria, approximately 50 km from Bandarban. After 2005/06 the project considerably expanded, started hiring its own staff, and moved to its current location on the grounds of the Bandarban District Hospital in the heart of the Chittagong Hill Tracts. Thanks to relentless efforts of a dedicated professional team MARIB has been expanding ever since and in early 2009 the new MARIB Clinic with its outpatient department and clinical and diagnostic laboratory was finally inaugurated by the Civil Surgeon. Although initially tasked to conduct scientific research on various aspects of malaria, the laboratory’s mission was expanded in recent years to include research on numerous other tropical and infectious diseases. The MARIB mission is to build a bridge between research and development for the benefit of the local population in one of the most remote and poorest parts of the world.

» www.marib.org
Dermatology: Tropical Skin Diseases & Telemedicine

PROJECT: TELEMEDICINE

As a relatively new technology telemedicine supports to overcome the lack of medical expertise in developing countries. In fact, the major challenge of telemedicine is sustainability i.e. how local services will carry on when support from outside is vanishing. Telemedical systems and infrastructure have to be set up to be autarkic and may not competitively replace local structures.

By establishing telemedical services in developing countries we need to foster studies on its local impact in order to define frameworks and efficacy, safety and ethical issues.

Image: Cutaneous Leishmaniasis

Michael Binder, Robert Loewe
Department of Dermatology, Division for General Dermatology, Medical University of Vienna

Skills

- Clinical and histopathological diagnosis of skin diseases with geographic background
  - State of the art assessment and documentation
  - Immunohistochemistry
- Evidence based treatment according to international guidelines
- Clinical and technical support for establishing telemedical centres in remote regions

Tools

- Outpatient Clinic for patients with tropical dermatoses
- Histopathological unit: Immunohistochemistry
- Telemedical unit

Vision

- Serving as a tertiary referral center specializing in the state of the art diagnosis & treatment of tropical dermatoses
- Providing second opinion for medical professionals
- Providing specific training & education

Cooperations

- Austrian Ministry of Health
- Platform Telemedicine (Austrian Ministry of Health, Austrian Ministry of Science)
- EURASIA-Pacific Network
- Austrian Scientific Society for Telemedicine and eHealth (ASSTeH)
- Austrian Society for Dermatology and Venerology

Image: Cutaneous Leishmaniasis

Arrow: Donovanii bodies
Vision
- The changing face of HIV - interdisciplinary approach to evolving medical needs
- Responding to the multi-ethnic origin of HIV-infected patients
- Gender-aspects in HIV/AIDS care

Cooperations
- National HIV cohort
- 3A-Arbeitsgruppe Ärztinnen und Aids, (multi-center cohort to evaluate the influence of gender on therapy success and side effects), DANGÄ
- Institute of Immunology, MedUni Vienna

PROJECT: INDETERMINE REACTIVITY
- A T cell mediated immune response to TB antigens correlates with a higher risk to develop active disease in HIV infected patients
- Indeterminate reactivity does not correlate with a higher risk of TB
- Indeterminate results correlate with older age and more advanced immunodeficiency (Aichelburg MC, Clin Infect Dis 2009)

INDETERMINE REACTIVITY:
- Marker of global immunodeficiency?
- Association with T cell anergy to other pathogens?
- Reversal of anergy by long-term cART
- Guidance for primary/secondary prophylaxis

834 HIV-1-infected patients asked to participate
830 consented and underwent QFT testing
- positive 44 (5.3%)
- negative 739 (90.0%)
- indeterminate 47 (5.7%)

834 HIV-1-infected patients asked to participate
4 declined

Image: Structure of human immunodeficiency virus
Abbas, Lichtman, & Pober
MedUni Vienna Biobank

Thomas Perkmann
MedUni Vienna Biobank, Clinical Division for Medical and Chemical Laboratory Diagnostics

Skills

- Profound knowledge of transportation, processing and high-quality long-term storage of biological samples
- Extensive experience in robot-assisted, automated extraction of nucleic acids
- Highest reliability and safety in sample management and privacy protection: continuous positive sample identification, encryption and storage of pseudonymized samples
- Expertise in high-throughput SNP genotyping and RNA profiling
- Wide experience in design, support and coordination of analytical processes: advisory service in candidate selection, choice of commercially available systems, feasibility testing of the development of in-house procedures, competitive offers (bulk purchase, benefits of a regular customer), implementation of analyses.

Tools

- Sample logistics infrastructure
- Deep-freeze storage facility [-20°C, -80°C]
- Automated liquid handling systems: all-purpose tools for a multitude of molecular biological analyses
- Extraction device for automated high-throughput preparation of nucleic acids from blood, tissue and cell suspensions
- qPCR-Thermocycler [7900HT Applied Biosystems] supporting 96- and 384-well format provided with a hands-off plate loader
- Joint use of a wide array of routine laboratory equipment (locally available at the Department of Medical and Chemical Laboratory Diagnostics)

Vision

- MedUni Vienna BIOBANK - a central archive of clinical study samples collected either in Vienna or study centers from abroad. For partners outside of Vienna, the MUV BIOBANK provides support for all preanalytical issues. However, final storage of study samples could be achieved at the MedUni Vienna BIOBANK, Vienna, Austria.

- MedUni Vienna BIOBANK currently plans a systematic expansion of core facility services such as the isolation of nucleic acids and cell protein, implementation of sophisticated molecular biological analyses (e.g. deep sequencing), automated processing of immunological analyses as well as integration of a high-capacity proteomics-unit (applicable to clinical trials).

- Projects within the framework of „Geographic medicine“ require necessarily international transportation of biological samples. These processes are subject to complex regulations for legal and medical-ethical reasons. The establishment of the MedUni Vienna Biobank as well noted and reliable partner for standardized international transportation of biological samples could significantly reduce administrative barriers and therefore avoid delays in particular projects.

Cooperations

- Austrian Federal Ministry of Science and Research
- Austrian National Biobanking Network
- Biobanking and Biomolecular Resources Research Infrastructure (BBMRI)
- MedUni Vienna Biobank at the Clinical Institute of Pathology
- Microarray Core Unit, MedUni Vienna
- Proteomics Unit, MedUni Vienna
- FACS Core Unit, MedUni Vienna
- Imaging Core Unit, MedUni Vienna

Thomas Perkmann
MedUni Vienna Biobank, Clinical Division for Medical and Chemical Laboratory Diagnostics
CGM and Ethical Aspect

Christiane Druml
Ethics-Committee of the MedUni Vienna

Vision

In 2009 the Vienna Medical University has established the “Center of Geographic Medicine”, which is dedicated to combining and synergizing skills and know-how in the area of infectious diseases in order to combat poverty related diseases and to strengthen capacity building in low resource countries in the South.

New and improved therapies have to be developed to fight the dramatic health situation in many developing countries. Any research must meet the highest criteria of scientific quality and needs to be evaluated according to internationally accepted ethical standards and guidelines. International research projects have to be formulated in protocols which are subjected to independent ethical review in the countries where the research will take place as well as in each state in which any research activity is to be performed. Ethical acceptability and access to fair benefits has to be guaranteed in order to protect the rights and the integrity of the research participants.

Capacity building programs regarding the ethical aspects of clinical trials have to complement the single research projects on site, but are also necessary independently of specific research projects. It is an ethical prerequisite for researchers from the North to share knowledge and experience with researchers and investigators in the South. Additionally within the different regions and between the North and the South networks will be established as support.

With broad experience in regard to ethics in international research, all research can be planned and protocols developed according to highest international scientific and ethical standards. Additional training programs for investigators can be organised. Follow-up of clinical research projects will be provided.

Cooperation partners

- Austrian Bioethics Commission, Vienna
- Institute for Ethics and Law in Medicine (IERM), Vienna
- Vienna School of Clinical Research (VSCR), Vienna
- European Clinical Research Infrastructures Network (ECRIN), Paris
- European Forum for Good Clinical Practice (EFGCP), Brussels
- European and Developing Countries Clinical Trials Partnership (EDCTP); The Hague & Capetown
- US Office of Human Research Protection (OHRP), Maryland USA
- Council of Europe
- UNESCO
- World Health Organisation - WHO

CANCER AND REGIONAL DIFFERENCES

Austrian Oncology has gained significant momentum accompanied by international standing. Thus, the Center for Geographic Medicine cooperates with cancer institutions at the MedUni Vienna. This is of particular importance, as first pattern of a difference in malignancies between caucasian and non-caucasian populations are starting to be recognized. Therefore, the following areas of interest have been chosen.

- Parasite induced cancer (e.g. cancer of urinary bladder)
- Comparability of treatment efficacy in different geographic regions
- Intervention forms in areas with financial restrictions
- Breast Cancer in African Women - Treatment response in the the triple-negative setting
- Cancer Development in patients with multiple infections: Incidence and pattern
- Lung cancer with EGFR mutations in caucasian versus non-caucasian population
The Medical University of Vienna International, the ambassador and international arm of the Medical University of Vienna, is well-positioned to support the initiatives of the Center for Geographic Medicine.

MedUni Vienna International was created in 2005 to operate successfully as a global player in international healthcare management. Since that time, the company has established a range and depth of expertise not only in healthcare management, but also in project and leadership management, the promotion of international relations, and the initiation of mutually beneficial scientific collaborations.

On a global scale, Regional Health Authorities include decision-makers from countries who want to invest in the infrastructure of science and healthcare and desire top-ranked professionals in education and advanced training, as well as preventive health practices for their populations.

In addition to the Regional Health Authorities, international industry and governments from diverse countries have relied on the MedUni Vienna International to provide competent and service-oriented partnerships, and MedUni Vienna International is successfully managing projects in Central and Southeast Asia, the Middle East, and North Africa. In fact, our scope is constantly widening, with many types of clients requesting our services.

Sponsoring and Managing Mutual Projects

One of the founding goals of the MedUni Vienna International was to sponsor mutually beneficial projects that would not only provide new research opportunities, but also encourage better-quality healthcare in regions where quality care was lacking. Both of these goals complement the goals of the Center for Geographic Medicine.

Both MedUni Vienna International and the Center for Geographic Medicine have similar aims, among which is the desire to improve patient safety and treatment, but with a slightly different focus. While the Center for Geographic Medicine focuses on research breakthroughs that will vastly improve the lives and health of patients, MedUni Vienna International makes these breakthroughs possible through funding opportunities, experience with international management projects, and a thorough knowledge of healthcare systems throughout the world.

Mission & Vision

- To serve as a successful global player in healthcare management, knowledge transfer, and academic medicine
- To thrive through excellence in medicine, teaching, science and business
- To spread knowledge, skills and quality standards for the benefit of our stakeholders
- To identify and utilize resources for the development of MedUni Vienna
- To provide opportunities for capacity building and career development
- To establish MedUni Vienna as an internationally recognized brand

Current Hospital Management Projects

- Al Ain Hospital, Abu Dhabi, United Arab Emirates, 412-bed public hospital
- National Research Center of Mother and Child Health, Astana, Kazakhstan, 500-bed public hospital
- Prince Court Medical Centre, Kuala Lumpur, Malaysia, 300-bed private hospital
- Tripoli Medical Center, Tripoli, Libya, 1,300-bed public hospital
Skills
- intercultural academic and clinical knowledge transfer
- development of medical concepts for health care markets
- consultancy for medical necessities
- continuing medical education
- design and planning of a process-oriented infrastructure
- hospital management
- quality assurance
- telemedicine

Cooperations & Partners (academic & public)
- Faculty of Medicine and Health Sciences, UAE University in Al Ain
- Health Authority of Abu Dhabi
- Abu Dhabi Health Service Company (SEHA)
- Ministry of Health Malaysia
- National University of Malaysia
- University of Malaya
- University Kebaangsan Malaysia
- Clinical Research Centre of Kuala Lumpur
- Petroliam Nasional Berhad (Petronas)
- Kazakhstan National Medical Holding
- Astana Medical University
- Vietnam National University

SPOT ON:
AL AIN HOSPITAL, ABU DHABI, UAE

Al Ain Hospital is a public hospital with 412 beds in Al Ain, Emirate of Abu Dhabi. The Hospital has 1,600 employees, including approximately 200 medical doctors. Every year, the hospital cares for 320,000 out-patients and 18,500 in-patients.

In June 2007, MEDICAL UNIVERSITY OF VIENNA INTERNATIONAL was assigned, together with its consortia partner VAMED, by the Health Authority of Abu Dhabi to establish priorities for the existing range of services in accordance with international standards. Until the finalisation of the planned new hospital building, the management consortium is responsible for the modernisation, restructuring, and expansion of the existing hospital in order to ensure the best health care for the people of Al Ain. MEDICAL UNIVERSITY OF VIENNA INTERNATIONAL provides the Medical Director, as well as the Deputy Medical Director of the hospital, and about 12-15 short-term assigned senior medical advisors from the Medical University of Vienna, ensuring medical expertise and quality assurance in virtually every clinical area. MedUni Vienna International also shows a strong presence, with several full-time clinical experts being appointed as Heads of Departments or to other leading positions at the Al Ain Hospital.
Increasing migration, mobility and tourism are some of the reasons for the occurrence of new emerging infectious diseases and its dissemination. Therefore, Geographic Medicine has become an increasingly important priority. The Center for Geographic Medicine of the Medical University of Vienna provides a unique possibility to connect basic research with clinical research, to optimize prophylactic and treatment strategies and to establish a collaborative network of scientists to address the determinants of emerging patterns in global health. Healthcare conditions especially in the case of infectious diseases vary from one country to another. This fact mandates scientists not only to take a global view, but also to exchange knowledge and to cooperate globally. It also offers the opportunity for specific training in global health and to transfer knowledge.

- Establishment of premier training programs at the MedUni Vienna in cooperation with MUVI and hospitals and Universities from developing countries (Africa, South East Asia etc) in order to strengthen capacity building both in Europe and in international partner institutions
- Establishment of PhD programs
- Establishment of scientist exchange programs (e.g. visiting research fellowship) in the field of Geographic Medicine
- Establishment and Implementation of a Master’s program for Geographic Medicine and Vaccinology
Collaborations

Austrian Ministry of Health | Platform Telemedizine (Austrian Ministry of Health, Austrian Ministry of Science) | EURASIA-Pacific Network | Austrian Scientific Society for Telemedicine and eHealth (ASSTeH) | Austrian Society for Dermatology and Venerology | National HIV cohort | Study group 3A (multi-center study to evaluate the influence of gender on therapy success and side effects) | Division of Infectious Diseases, Department of Internal Medicine, Cantonal Hospital St. Gallen, Switzerland | Institute of Immunology, MedUni Vienna | Advisory Committee of Immunization Practice of the National Supreme Board of Health | International Vaccine and Nutrition Companies | Immunological Research Institutions in UK, Netherlands, Germany, Switzerland, Sweden (Univ. Edinburgh, Univ. Leiden, Univ. Marburg, Univ. Gothenburg) | Thammasat University, Bangkok, Thailand | Laura Bassi Centres of Expertise | V2020 Austria | Austrian Committee for International Ophthalmology of the Austrian Ophthalmological Society | Austrian Committee for Uveitis, Allergy, Ocular Inflammation & Infection of the Austrian Ophthalmological Society | International Ocular Inflammation Society (IOIS) | Journal of Ophthalmic Inflammation & Infection | International Society for Geographical and Epidemiological Society (ISGEO) | WHO - Prevention of Blindness and Deafness | Infectious Disease Control and Tropical Diseases Study Groups | Medical Research Unit, Albert Schweitzer Hospital, Lambaréné, Gabon | Gedamaytu, Ethiopia, Development collaboration with east Ethiopian community | Institute for Tropical Medicine, University of Tubingen, Germany | TBNET: Tuberculosis Network European Trialsgroup | Otto-Wagner Hospital, Vienna | Johns Hopkins University | Walter Reed Army Institute of Research | University of Maryland | University of South Florida | Ministry of Health and Family Welfare, Dhaka, Bangladesh | Chittagong Medical College, Bangladesh | ICDDR,B | Bandarban Sadar Hospital | Thailand: Mahidol University | Thammasat University | Ministry of Public Health | AFRIMS | World Health Organization | Oxford University | WWARN | Sonne International | Austrian Federal Ministry of Science and Research | Austrian National Biobanking Network | Biobanking and Biomolecular Resources Research Infrastructure (BBMRI) | MedUni Vienna Biobank at the Clinical Institute of Pathology | Microarray Core Unit, MedUni Vienna | Proteomics Unit, MedUni Vienna | FACS Core Unit, MedUni Vienna | Imaging Core Unit, MedUni Vienna | Faculty of Medicine and Health Sciences, UAE University in Al Ain | Health Authority of Abu Dhabi | Abu Dhabi Health Service Company (SEHA) | Ministry of Health Malaysia | National University of Malaysia | University of Malaya | University Kebaungan Malaysia | Clinical Research Centre of Kuala Lumpur | Petroliam Nasional Berhad | Kazakhstan National Medical Holding | Astana Medical University | Vietnam National University | Austrian Bioethics Commission, Vienna | Institute for Ethics and Law in Medicine (IERM), Vienna | Viennas School of Clinical Research (VSCR), Vienna | European Clinical Research Infrastructures Network (ECRIN), Paris | European Forum for Good Clinical Practice (EFGCP), Brussels | European and Developing Countries Clinical Trials Partnership (EDCTP), The Hague & Capetown | US Office of Human Research Protection (OHRP), Maryland USA | Council of Europe | UNESCO | World Health Organisation - WHO

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