

**SREE CHITRA TIRUNAL INSTITUTE
FOR MEDICAL SCIENCES AND TECHNOLOGY**
Trivandrum Kerala INDIA



Indo-Swiss Symposium
on Cohorts and Biobanks
with special reference to chronic non-communicable diseases
27-28 January 2012

Sponsored by the Department of Science & Technology (DST), Govt. of India
in the framework of the Indo-Swiss Joint Research Programme (ISJRP).
Organised in association with the Swiss Tropical Public Health Institute, Basel, Switzerland

OBJECTIVES

- Consider the value and priority of cohorts and biobanks to explain vulnerability and risk factors, and to guide policy.
- Review Indian and Swiss experience and the approach to establishing and managing various cohorts.
- Clarify cross-cutting implications and prospects for cohort planning in India and Switzerland, and for particular chronic diseases.
- Examine ethical issues to be addressed in design and planning of cohort Studies and bio-banking.

THE BACKGROUND

Chronic non-communicable diseases—including cardiovascular diseases, cancers and chronic obstructive pulmonary diseases (COPD)—accounted for nearly 70% of deaths globally in 2005. Mortality due to non-communicable diseases in India is expected to increase by 17% in the next ten years. Preventing and treating them have become major challenges for all health care systems. For a better practical understanding of these disorders, many countries -- mostly high-income countries--, are setting up large-scale prospective cohorts and biobanks that recruit more than 100,000 persons from the healthy population, making it possible to study environmental, biological and social contexts, as well as the pre-morbidity onset and course of chronic diseases.

Large cohort studies with inherent technological challenges are required to identify complex patterns of risk, involving environmental, lifestyle and genetic components that predispose individuals to various diseases. In addition, subjects who develop specific diseases can be followed up to clarify patterns of care and economic impact. The ultimate goal of such multidisciplinary research, --

assessing data and bio-specimens collected in these cohorts--, is to extend the life-years without disease-related disabilities. Setting up these cohorts is timely, because they are the only means by which recent progress in imaging and «-omic» technologies (*genomics* and *proteomics*) can be applied to improve the health of people.

This symposium will examine the benefits and practical interests of employing transferable methodologies in different settings—India and Switzerland—and of developing prospects for joint cohort studies that will ultimately answer the following key research questions:

- *What is the role of lifestyle (e.g., diet, physical activity, tobacco use and alcohol use) and features of the social and cultural environment in causing diabetes, heart disease, stroke, cancers, COPD and mental health problems?*
- *How do genetic factors in Indian and Swiss populations influence the occurrence of the diseases mentioned above?*
- *What is the role of various environmental factors, especially indoor and outdoor air pollution and environmental noise exposures, in causing these diseases?*
- *How do genetic, environmental and lifestyle interactions influence occurrence, course and outcome of diabetes, heart disease, stroke, cancers, COPD and mental health problems?*

INVITED SPEAKERS FROM SWITZERLAND

Ignazio Cassis, Commission for Social Security and Health, SGK Ticino • **Robert Gehrig**, EMPA • **Dennis Hochstrasser**, University Hospital Geneva • **Nino Kuenzli**, Swiss TPH • **Brian Martin**, Institute of Social and Preventive Medicine, Zürich • **Harish Phuleria**, Swiss TPH • **Martin Preisig**, Centre Hospitalier Universitaire Vaudois (CHUV) • **Nicole Probst-Hensch**, Swiss TPH • **Thierry Rochat**, University Hospital Geneva • **Peter Vollenweider**, Centre Hospitalier Universitaire Vaudois (CHUV)

INVITED SPEAKERS FROM INDIA

Mohan D. Gupte, NIE, Chennai • **Nandini K. Kumar**, NIE, Chennai • **V. Raman Kutty**, SCTIMST • **Sanjay Mehendale**, National Institute of Epidemiology (NIE), Chennai • **A.C. Mishra**, National Institute of Virology, Pune • **K. Mohandas**, Kerala University of Health Sciences (KUHS), Trissur • **K. Praveenlal**, KUHS, Trissur • **M. Radhakrishna Pillai**, Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram • **K. Ramdas**, Regional Cancer Centre, Thiruvananthapuram • **R. Thara**, Schizophrenia Research Foundation, Chennai • **C.S. Yajnik**, KEM Hospital and Research Centre, Pune

ORGANISATION

- SCTIMST **K. Radhakrishnan**, *Coordinator* • **K.R. Thankappan**, Programme
- Swiss TPH **Mitchell G. Weiss**, *Coordinator* • **N. Probst-Hensch**, Programme

PROGRAMME

The Symposium, spread over 10 sessions of 90 minutes each during the two days, shall be held in the Auditorium of SCTIMST, Ground Floor, Achutha Menon Centre.

Friday, 27 January 2012 :: 09:30 --17:30 hrs.

Inaugural Session & Keynote Address (Cohorts): *Experience in India and Prospects for Cohorts and Biobanks*

Session 1: *Establishing Community Based Cohorts: Approaches, Methods and Challenges*

Session 2: *Lessons Learned in Cohort Studies*

Session 3: *Importance of Cohorts for Research and Policy Partnerships (Panel)*

Saturday, 28 January 2012 :: 09:30 --17:30 hrs.

Keynote Address (Biobanks): *Value of Biobanks for Explaining the Complexity of Chronic Diseases*

Session 4: *Motivation and Experience in Establishing and Maintaining Biobanks*

Session 5: *Role of Mental Health in Cohort Studies and Biobanking*

Session 6: *Ethical Issues*

Session 7: *Breakout Sessions and Concluding Discussion:*

Interests, Needs and Partnership Prospects for Indian Mega-Cohorts and Biobanks

Valedictory Session

The symposium will be a comprehensive exposition of the concepts and current trends in the area and will be of seminal interest to medical practitioners, researchers and students. Interested medical professionals and students may seek registration as delegates.

The *Travancore Cochin Medical Council* has allocated **5 credits** for participation as delegates in the Symposium under its CME scheme.

- Apply by email to <projectcell@sctimst.ac.in> Tel. 0471-2524 437.
- Registration fee (Rs.1500 for *faculty* and Rs.750 for *students*) to be paid at the venue on 27th.

For more information please contact Dr K. R. Thankappan: thank@sctimst.ac.in

The **Sree Chitra Tirunal Institute for Medical Sciences and Technology** (SCTIMST), was established by an Act of the Indian Parliament in 1980, as an institution of national importance. Its hospital wing in cardiology and neurology has subspecialty areas in congenital cardiac surgery, sleep disorder, stroke, acute coronary problems, epilepsy, movement disorders, intervention radiology and neuro-endoscopic surgery. The biomedical Technology Wing has pioneered the indigenous development of medical devices and implants, which has led to the establishment of a medical device industry based on indigenously developed technology. The Achutha Menon Centre for Health Science Studies (AMCHSS), was set up in 1997 for research, training and consultancy in public health.

SCTIMST is funded by the Department of Science and Technology (DST), Government of India.

www.sctimst.ac.in

The **Swiss Tropical and Public Health Institute** (Swiss TPH, Basel, Switzerland), founded in 1943 (earlier known as the Swiss Tropical Institute), is a world-renowned Institution engaged in teaching, research and services in the field of *International Health Development* with multi and cross-disciplinary activities supported by laboratory studies, conceptual clinical work and practical transfer of technical expertise to health system planning as well as programmes in local, national and partner countries.

The Swiss TPH receives 19% of its core budget from Basel-City and Basel-Land (12%) and the Swiss federal government (7%). The remaining contributions (81%) are received through competitive fundraising and the earnings of our service departments.

<http://www.swisstph.ch>

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY

Trivandrum Kerala INDIA



Indo-Swiss Symposium on Cohorts and Biobanks with special reference to chronic non-communicable diseases 27-28 January 2012

Sponsored by the Department of Science & Technology (DST), Govt. of India
in the framework of the Indo-Swiss Joint Research Programme (ISJRP).
Organised in association with the Swiss Tropical Public Health Institute, Basel, Switzerland

Organization

SCTIMST	K. Radhakrishnan, Coordinator • K.R. Thankappan, Programme
Swiss TPH	Mitchell G. Weiss, Coordinator • N. Probst-Hensch, Programme

Tentative Programme

Friday, 27 Jan 2012

9:30-11:00 *Inaugural Session*

Welcome Address:

K. Radhakrishnan, Director, SCTIMST (*Symposium Coordinator, India*)

Indo-Swiss Collaboration:

M. Strub, Chargé d'Affaires, Swiss Embassy

Indo-Swiss Partnership Experience:

M. Weiss, Swiss TPH (*Symposium Coordinator, Switzerland*)

Indian Perspective:

M.D. Gupte, ICMR Chair in Epidemiology, Pune

Keynote Address:

Experience and Prospects for Cohorts and Biobanks

C.S. Yajnik, Director, Diabetes Unit, KEM Hospital, Pune

Thanks:

K .R. Thankappan, Head, AMCHSS, SCTIMST

11:00-11:30 **Tea**

11:30 -13:00	Session 1: <i>Establishing community based cohorts: approaches, methods and challenges</i> Co-chairs: K.R. Thankappan, AMCHSS / N. Probst-Hensch, Swiss TPH S. Mehendale, Director NIE, Chennai M.D. Gupte, ICMR Chair in Epidemiology, Pune <i>The SAPALDIA Cohort: Design and Results in the field of Respiratory and Cardio-vascular Diseases</i> • T. Rochat, HUGE Geneva/SAPALDIA, Switzerland <i>Setting up the CoLaus Study</i> • P. Vollenweider, CoLaus/University Hospital Lausanne, Switzerland
13:00-14:00	Lunch
14:00-15:30	Session 2: <i>Lessons Learned in Cohort Studies</i> Co-chairs: K. Vijayakumar, Professor, Community Medicine, Medical College, Trivandrum / M. Preisig, CHUV Lausanne <i>Cohorts in chronic disease research: Experiences from the PRO-LIFE cohort, Varkala, South India</i> • V. Raman Kutty, AMCHSS, SCTIMST <i>Experience of Cohort Studies in Trivandrum</i> • K. Ramdas, Medical Superintendent, Regional Cancer Centre, Trivandrum <i>Using Existing Cohorts in Research on Environmental Causes of Diseases – Pros and Cons from a European Perspective</i> • N. Kuenzli, SwissTPH, Switzerland <i>Health Demographic Surveillance in Africa and South Asia</i> • S. Hirve, Consultant, Global Influenza Program, WHO, Geneva and former Vice Chair, INDEPTH Network, Board of Trustees
15:30- 16:00	Tea
16:00-17:30	Session 3: (Panel) <i>Importance of Cohorts for Research and Policy Partnerships</i> Co-chairs: S. Sivasankaran, Professor of Cardiology, SCTIMST / N. Kuenzli, Swiss TPH <i>The Role of Air Quality Monitoring Networks in Supporting Health Research and Legislation</i> • R. Gehrig, EMPA, Switzerland <i>Policy and Programmes for Mental Health in Kerala</i> • K. Praveenlal, Dean (Research), Kerala University for Health Sciences <i>Evidence Based Politics: Knowing and Acting Today to Shape Tomorrow</i> • I. Cassis, Member of the National Council, Switzerland <i>The Role of Cohort Studies for NCD Prevention and Health Promotion - the Example of Physical Activity</i> • B. Martin, University of Zürich, Switzerland

9:00-9:45 *Keynote: Biobanks*

Co-chairs: C.C. Kartha, *Professor of Eminence*, Rajiv Gandhi Centre for Biotechnology(R GCB), Trivandrum /
P. Vollenweider, CoLaus

Biobanks: Understanding Chronic Diseases in their Complexity

- N. Probst-Hensch, Swiss TPH, Switzerland

9:45-10:15 *Tea*

10:15-11:30 *Session 4: Motivation and Experience in Establishing and Maintaining Biobanks*

Co-chairs: R. Renuka Nair, *Associate Dean, Research & Publications*, SCTIMST /
P. Vollenweider, CoLaus

Establishing and Maintaining Biobanks: Experience of RGCB

- M . Radhakrishna Pillai, *Director*, Rajiv Gandhi Centre for Biotechnology, Trivandrum
- A.C. Mishra, *Director*, National Institute of Virology, Pune

Laboratory Medicine Perspectives & Bio-banking

- D. Hochstrasser, *University of Geneva*, Switzerland

11:30-12:30 *Session 5: Role of mental health in cohort studies and biobanking*

Co-chairs: K.A. Kumar, *Professor of Psychiatry & Former Director of Medical Education*, Trivandrum /
M. Weis, Swiss TPH

Research Priorities and Prospects for Mental Health in India

- R. Thara, *Director*, Schizophrenia Research Foundation, Chennai

PsyCoLaus: Interest of a joint Physical and Psychiatric Investigation in the Community

- M . Preisig, CHUV Lausanne, Switzerland

12:30-13:30 *Session 6: Ethical Issues*

Co-chairs: T.K. Sundari Ravindran, *Professor*, AMCHSS / T. Rochat, HUGE Geneva

Ethical Issues related to Cohorts and Bio-Banks Research

- Nandini K. Kumar, *National Institute of Epidemiology*, Chennai

Ethical Issues in the CoLaus Study Concerning Collaborations of Academia and Industry

- P. Vollenweider, CoLaus/University Hospital Lausanne, Switzerland

13:30-14:30 *Lunch*

14:30-15:30 *Breakout sessions*

- 1) ***Scope and Priority Prospects for Cohorts***
 - Section A (Indian leader; Harish Phuleria)
 - Section B (Indian leader; Swiss leader)
- 2) ***Funding and Support***
 - (Indian leader; Ignazio Cassis)

15:30-16:00 Session 7: Concluding Discussion
Interests, Needs and Partnership Prospects for Indian Mega-Cohorts and Biobanks

Co-chairs: S. Mehendale, NIE, Chennai/ M. Weiss, Swiss TPH

16:00-16:30 Tea

16:30-17:30 Valedictory and Closing

Co-chairs: K. Radhakrishnan, Director, SCTIMST / M. Weiss, Swiss TPH

- **K. Mohandas**, *Vice Chancellor*, Kerala University of Health Sciences, Thrissur
- **N. Kuenzli**, *Head of the Dept of Epidemiology & Public Health*, Swiss TPH, Basel

