Front row, L-R – Swiss Ambassador HE Mr Daniel Woker, Professor Elisabetta Barberio, School of Physics, Professor Gerhard Schmitt, Dept of Architecture, ETH Zurich. Back row, L-R – Professor Mark Hargreaves, Pro Vice-Chancellor (Research Partnerships) and Professor Simon Evans, Pro Vice-Chancellor (International)

REPORT
Dec 2011

Event Team
Ms Anna Song International Liaison Officer (Event Management) IRO
Dr Megan Power International Relations Consultant IRO
Mr Douglas Proctor Associate Director IRO
Mr Mark Tyndall International Relations Officer (Web and Communications) IRO
Mr Ken Lee International Visits Officer IRO
Dr Adrian Collins International Research and Grants Advisor MRO
Mr Christian Schneider Swiss Science and Technology Office, Swiss Embassy
Ms Martina Heiniger Swiss Embassy Liaison
1 Background - Swiss-Australia Research Day

The Swiss-Australia Research Day at the University of Melbourne (UoM) brought people together from research, government and industry to focus on the University's research and collaboration activities with Switzerland — see www.iro.unimelb.edu.au/swissresearchday/.

The day provided both senior and early career researchers with an opportunity to network with colleagues currently working through Swiss-Australia collaborations and learn more about research funding and other initiatives from representatives of the Swiss Embassy.

2 Partners

Following a successful visit to the University by Professor Dieter Imboden, President of the National Research Council of the Swiss National Science Foundation (SNSF) in November 2010, The Swiss Embassy and the Swiss Australian Academic Network provided the supportive partnership necessary to realise and deliver Swiss-Australia Research Day in co-operation with the International Relations Office at the University.

The Swiss Embassy's decision to appoint its first Australian-based science attaché in 2011, Mr Christian Schneider, demonstrates the commitment to supporting ongoing investment in research in our region. The Embassy funded roundtrip flights for Professor Gerhart Schmitt, Director of the ETH Zurich’s Future Cities (collaboration) Laboratory, based in Singapore, to participate in the Swiss Research Day program.

3 Program and participants

In addition to our guest speaker, Professor Schmitt, the Swiss Research Day programme included research participants from UoM and its research partners (IBM, Victorian Government) with significant connections with Swiss research and/or who are alumni of Swiss institutions (please see Annex I for details).

The Swiss Research Day program provided a series of events for learning exchange and discussion. The focal points drew on current Swiss-Australia strengths in research and examined future potential through the theme — Connecting the Virtual: Future Cities, Future Health. Swiss connections and breadth of engagement also came through with presentations on the significant contributions by Australia to Europe’s CERN project, as well as connections to the study of international law in Geneva by Melbourne Law School’s JD students and our Dean of VCAM and MCM’s involvement with the Swiss Global Arts Foundation.

4 Key shared strengths promoted during the day

Higher education excellence

- Both Switzerland and Australia share 7 Universities in the THE\(^1\) top 200 Universities listing in 2011.
- 3 Swiss Universities, of which 2 are UoM partner institutions, were recognized as the world’s top 3 internationally oriented Universities. (UoM ranked 34 for international outlook in 2011).
- Australia (11) and Switzerland (4) are both recognized as ‘over-achievers’ – for punching above their weight for HE excellence. Both outranked the US (14) when rankings are adjusted for population and GDP.

Research Value and Impact

- Shared Nobel Prize winning collaborators – Professor Peter Doherty and Professor Rolf Zinkernagel.
- UoM provides significant research excellence in physics and materials science of value to Swiss fundamental research and development.
- 4000 Joint publications were made through Swiss – Australia collaboration since 2006.
- 18% of all UoM publications in 2010 were Swiss-Australian collaborations.
- UoM publications which are collaborations between the University of Melbourne and researchers in Swiss Institutions have 4 x the impact of other collaborative papers.\(^2\)

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\(^1\) Time Higher Education World Rankings

\(^2\) Statistics based on Melbourne Research Office analysis – contact Simon Porter for more information
• The Swiss Australia Academic Network (SAAN), which originated in Melbourne, and now has representatives in every Australian state and territory as well as back in Switzerland, provides an established network to foster further collaborative opportunities.

**Funding opportunities and Investment**

• Swiss investment within Australia, and particularly in Australian research is significant – the Swiss National Science Federation (SNSF) – a government sponsored body – has **invested $AUD 52mill in Australian-based research** since 2008.

• All major Swiss based multinational corporations have offices and major operations within Australia and a number are significant private sector investors in research.

• Australia is recognised as a valued point for investment and access to broader opportunities within the wider Asian region.

**International Policy, Cultural development and engagement values**

• Switzerland’s location as an international centre in relation to international law and policy is unique. The Melbourne Law School has been able to develop in-country curriculum to support study and future research in this field for its JD students. UoM liaison – Professor Andrew Mitchell, AusTrade Visiting Fellow.

• Switzerland’s rich cultural history and long-standing connection with Australia in terms of settlement has continued a tradition of cross-cultural engagement. UoM liaison – Professor Barry Conyngham, Dean of the Victorian College of the Arts and the Melbourne Conservatorium of Music, Advisory Board member Swiss Global Arts Foundation.

5 **Media impact from Swiss Research Day 2011**


• The Australian interviewed HE Daniel Woker for a forthcoming article in its *Higher Education* Supplement.

6 **Plans of future collaboration arising from Swiss Research Day 2011**

**Future Cities**

• Research collaboration in Digital Architecture is promising with UoM’s senior academic Professor Bharat Dave (whose PhD was supervised by Professor Schmitt) in discussion with Professor Schmitt.

• Ongoing long term ARC linkages project is promising between Professor Sun Sheng Han and Victorian government in its growth corridors project headed by Steve Dunn. Swiss Research Day facilitated a deepening of this existing relationship.

• In the short term, there is potential for attracting Swiss government funding for UoM’s travelling studio to Singapore.

**Future Health**

• Profile of significant information technology resources and expertise value in Melbourne in the fields of health and life sciences.

• Potential for SAAN to further develop collaborative opportunities across the life sciences fields.

• Potential to draw on SNSF funding to support an in-country workshop to further explore collaborative links in relation to genomics and other bio-informatics based research.

**Other fields**

• Considerable ongoing collaboration in the fields of fundamental science, physics and materials science with UoM having considerable expertise and interface with CERN and related institutes in Switzerland.

• Further potential to look at interdisciplinary and generic areas of interest in relation to information management, nuclear medicine and imaging.

• Ongoing potential in the fields of the Arts, Social Sciences and Law to develop further collaboration opportunities.
Swiss-Australia Research Day
23 November 2011

PROGRAM

12pm  SWISS RESEARCH DAY - RESEARCHER LUNCH
GRYPHON GALLERY 1888 BUILDING Grattan St Parkville
Welcome: Professor Simon Evans Pro Vice-Chancellor (International) University of Melbourne
The University of Melbourne—a key collaborator with Swiss research: Professor Mark Hargreaves
PVC (Research Partnerships)
The CERN Experience: A/Professor Elisabella Barberio, School of Physics, University of Melbourne
Funding for future opportunities: Christian Schneider, Swiss Science, Education and Technology Office

2pm  KEYNOTE PRESENTATION (Public Session)
Lecture Theatre 3 LEVEL 2 ICT Building, Barry St, Parkville
Connecting the virtual - Future cities and the role of international collaboration in their realisation.
Professor Gerhard Schmitt, ETH Zurich, Future Cities Lab, Singapore
Welcome and introduction by Professor Tom Kvan, Dean, Architecture Building and Planning

3.15pm CHALLENGE WORKSHOPS (by invitation)
Level 1 THE SPOT Business and Economic Building (Rooms to be signposted)

Future Cities - Simulating environments: facing challenges, building opportunities
Convenor: Professor Sun Sheng Han, Director of Urban Planning University of Melbourne
Professor Gerhard Schmitt, ETH Zurich
Professor Tom Kvan (Chair) Dean of ABP
Mr Steve Dunn, Director, Structure Planning, Growth Areas Authority, Victorian State Government

Future Health - Genetics expertise meets next generation technology: Why Swiss health is looking to Melbourne
Convenor: A/Professor Matthias Ernst - Director, Ludwig Cancer Centre, Melbourne
Professor Robin Gasser, Professor of Parasitology, Faculty of Veterinary Science
Professor Mark Hargreaves (Chair) Pro Vice-Chancellor Research Partnerships
Dr Jürg von Känel, Senior Research Manager IBM Australia

4.45pm EVENING RECEPTION for the SWISS AMBASSADOR to AUSTRALIA
UNIVERSITY HOUSE Upper East Dining Room
Swiss-Australian collaboration - Science, technology and the arts: Ambassador Woket
Professor Andrew Mitchell, Austrade Visiting Research Fellow (Law) A view from Geneva
Professor Barry Conyngham, Advisory Board Member Swiss Global Artistic Foundation
8 Biographies of key external participants

Swiss ambassador HE Mr Daniel Woker

HE Mr Woker took up his post as the Swiss Ambassador to Australia, Kiribati, Nauru, Papua New Guinea and Vanuatu in August 2011.

Previous to this role, he was the Swiss Ambassador to Singapore and Brunei Darussalam (2002-2008), Swiss Ambassador to Kuwait, Bahrain and Qatar, with residence in Kuwait (1998-2002) and has served as the Development and Economic Affairs Officer, UN Mission in New York (1982-1986). From 1996-1998, HE Mr Woker was the Founding Director of the Geneva Centre for Security Policy (GCSP) whilst on leave from the Swiss foreign service.

He has a PhD in International Law from the University of Zurich (1985).

Professor Gerhard Schmitt, ETH Zurich

Professor Gerhard Schmitt is the Director of the Singapore-ETH Centre for Global Environment Sustainability and our key note speaker for Swiss-Australia Research Day.

Professor Schmitt has lead the Centre’s first interdisciplinary research program, the Future Cities Laboratory, provided the intellectual hub to engage researchers with industry to facilitate technology transfer for the benefit of the public.

He has held posts at the Department of Architecture of the Swiss Federal Institute of Technology (ETH), Zürich and at Carnegie Mellon University in the US. His research focus is on the development of intelligent design support systems and the architectural design of the information territory.

Associate Professor Matthias Ernst, Interim director of Ludwig Institute for Cancer Research

Associate Professor Matthias Ernst is the President of SAAN and one of the panellists for Challenge Workshop on Future Cities on Swiss Research Day.

He received his PhD from the ETH Zurich for studies undertaken at the University Hospital in Zurich on bone cell metabolism, before joining the Merck Sharp & Dohme Research Laboratories in Pennsylvania, USA for postdoctoral studies.

In 1990 he joined the Melbourne Branch of the Ludwig Institute for Cancer Research, following which he held an appointment as deputy head of the bone biology program at Ciba Geigy in Basel. In 1996, Associate Professor Ernst returned to Melbourne to the Ludwig Institute.

Mr Steve Dunn, Victorian Government

Mr Steve Dunn is a Director at the Growth Areas Authority, a Victorian statutory authority, where he is responsible for policy and strategy. He is one of the panellists for Challenge Workshop on Future Cities on Swiss Research Day.

Mr Dunn has held senior management positions in both state and local government and has professional experience in town planning, environment management and economic development.
Dr. Jürg von Känel, Senior Research Manager, IBM Australia

Dr. Jürg von Känel he has moved to Melbourne in June 2011 to take on the build up of the new IBM Research and Development lab in Australia.

From 1991, he was at the TJ Watson Research center in the US and managed the relationship between Research and the financial services industries. Then, in 2004 he initiated an Enterprise Risk & Compliance Framework focused primarily on the financial industry which led to the Treasury & Risk magazine listing him as one of the 100 most influential people in finance in 2006.

He studied math and computer science at ETH Zürich and holds a Ph.D. in Computer Science (1991); he joined IBM in 1985 in Zürich Switzerland. Dr Känel is one of the panellists for Challenge Workshop on Future Health on Swiss Research Day.

9 University of Melbourne Contributors

A/Professor Elisabetta Barberio, Department of Physics, Faculty of Science
Professor Barry Conyngham, Dean of Victorian College of the Arts and Melbourne Conservatorium of Music
Professor Robin Gasser, Professor of Parasitology, Faculty of Veterinary Science
Professor Sun Sheng Han, Professor of Urban Planning, Faculty of Architecture Building and Planning
Professor Mark Hargreaves, Pro Vice-Chancellor (Research Partnerships)
Professor Tom Kvan, Dean, Faculty of Architecture, Building and Planning
A/Professor Andrew Mitchell, Professor in Law, Melbourne Law School

University of Melbourne Contributors to Faculty level visit by Professor Gerhard Schmitt

Martin Tomko - AURIN group $20mill Aus Government funded project. Looks at urban resource use and open access to data to improve resource management and inform development of the built environment. Also spoke to graduates from info systems. Outline of overview project – discussion on data available to researchers
Barrie Shelton - Visit to student urban design studio exhibition. Looked at design outcomes and neighbourhood – ‘superblocks’ looked at 2km² per group. Potential to integrate this approach with future cities group.
Bharat Dave – Digital and simulation architecture. Also met with PhD students working in this area. Probably most interest in collaboration is in this space
Sun Sheng Han - Low carbon cities research group. Carbon emission reduction and urban design and building arrangement.
Justyna Karakiewicz - Urban design. Discussed design innovations and implications to environment; Carbon footprint minimisation.
Ray Green – looking at coastal areas – impact on sea level and climate change
Rachel Yan Gu – Possible collaboration in Chinese Cities looking at IP issues and how this worked for Future Cities
Ong Bong Lay Carbon absorption index
Marcus Wigan - looking at industry and commercial products ‘ City Engine’
Christopher Hewson MSSI looking at urban food supply