2016 Seminar on Brazilian-Swiss scientific collaboration

EPFL – 26 April 2016
Prof. Jean-Claude Bolay
Director, EPFL CODEV
Roger Swifcz
Scientific Advisor, SERI
Prof. Sergio Gargioni
President, CONFAP (Brazilian National Council of Research Foundations)
Gioia Deucher
CEO, swissnex Brazil
2016 Seminar on Brazilian-Swiss scientific collaboration

EPFL – 26 April 2016
2016 Seminar on Brazilian-Swiss scientific collaboration

Brazil-Swiss Research collaboration: Leading House activities

Julien Bettler
Programme Manager, EPFL CODEV
Leading House: Mandate & concept

Mandate

From the State Secretariat for Education, Research and Innovation (SERI)

Based on the Swiss Federal Council Dispatch on the Promotion of Education, Research and Innovation (ERI) for 2013-16

Objectives of the Leading House Programme

Coordination and design of funding instruments for Swiss researchers to:

- **Promote** scientific collaboration and exchanges with Brazil
- **Explore** new funding instruments and new potential priority countries with a high S&T potential
- **Provide** Swiss science, higher education and innovation actors with relevant information on S&T
BSJRP Principles

- Scientific excellence
- Mutual interest
- Co-funding

Bilateral cooperation programmes with 7 high-potential countries (BRICS, Japan and South Korea)
Funding instruments

Joint Research Projects

- 2 calls in 2010 and 2011:
  - 2010: focus on Neurosciences, Health, Energy and Environment
  - 2011: focus on
    - Energy and environment with focus on "renewable energies"
    - Health and environment with focus on "neglected diseases" and "nutrition and functional food"
- 22 projects funded; funding up to CHF 200,000 per project
## Overview of outputs of the BSJRP: 2008-2012 phase

<table>
<thead>
<tr>
<th>Swiss Partner</th>
<th>Swiss Institution</th>
<th>Project Title</th>
<th>Brazilian Partner</th>
<th>Brazilian Partner Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nikolaos Stergiopoulos</td>
<td>EPFL</td>
<td>Switzerland-Brazil collaborative project to reduce carotid plaque formation and vulnerability: participation of inflammatory factors</td>
<td>Prof. Robson Augusto Souza dos Santos</td>
<td>University of Sao Paulo, Dept. Fisiologia e Biofisica-ICB-UFMG</td>
</tr>
<tr>
<td>Penelope Vounatsou</td>
<td>Swiss TPH (Basel)</td>
<td>Spatio-temporal dynamics, risk factors and burden estimates of Neglected Tropical diseases in Brazil.</td>
<td>Prof. Edgar Marcelino de CARVALHO FILHO</td>
<td>Universidade Federal da Bahia, Hospital Universitário Professor Edgard Santos</td>
</tr>
<tr>
<td>Alfio Quarteroni</td>
<td>EPFL</td>
<td>Modeling and Simulation of the Human Cardiovascular System with Application to the Diagnosis, Treatment and Surgical Planning of Cardiovascular Diseases.</td>
<td>Dr Raul A. FEIJOO</td>
<td>INCT MACC, National Laboratory for scientific computing LNCC MCT</td>
</tr>
<tr>
<td>Frank Nueesch</td>
<td>EMPA</td>
<td>Organic thin film solar cells based on near infrared absorbing colorants.</td>
<td>Prof. Carlos Frederico de Oliveira Graeff</td>
<td>Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Faculdade de Ciências de Bauru</td>
</tr>
<tr>
<td>Pie Muller</td>
<td>Swiss TPH (Basel)</td>
<td>Surveillance of dengue vector for the evaluation of risk of DENV transmission.</td>
<td>Dr. Lêda Narcisa Regis</td>
<td>Centro de Pesquisas Aggeu Magalhães / FIOCRUZ</td>
</tr>
<tr>
<td>Stewart Cole</td>
<td>EPFL</td>
<td>Comparative transcriptomics in Leprosy</td>
<td>Dr. Milton Ozório Moraes</td>
<td>Leprosy Laboratory (LAHAN), FIOCRUZ</td>
</tr>
<tr>
<td>Luca Varani</td>
<td>USI</td>
<td>Antibodies against Dengue Virus: which ones are effective against this neglected disease and why? Searching for correlations between structural, dynamics and immunological properties of antibody-antigen complexes.</td>
<td>Dr. Ana Paula Valente</td>
<td>Federal University of Rio de Janeiro</td>
</tr>
</tbody>
</table>
Collaboration instruments: 2013-2016 phase

**Instruments**

- Seed Money grants
- Academia-Industry Training AIT
- FLASH Research projects
- Workshop grants

**2013-2016**

- Seed Money Call in 2013-14 with a focus on 4 research areas
- Seed Money Call in 2015-16: open to all fields
- 3 cycles of AIT programme in 2014-16: (focus on Health & Life sciences in cycle 1)
- FLASH Research programme in 2015-16: focus on exceptional events
Activities: Supported projects in 2013-2016

Seed Money Brazil: Research projects and Workshop grants

- 54 applications received
- 20 projects granted (37% success rate)
- Total granted CHF 338’318

Few examples:

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Swiss Researcher</th>
<th>Brazilian Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and analysis of codes for storage systems with applications to secure cloud storage systems</td>
<td>Dr. Ninoslav MARINA HES-SO, Haute Ecole ARC - 2014-15</td>
<td>Dr. Christiano Torezzan, Univ. of Campinas (UNICAMP)</td>
</tr>
<tr>
<td>Workshop: Investment, Corruption and the Role of State - A Swiss-Brazilian Dialogue</td>
<td>Prof. Andreas Ziegler UNIL - 2015-16</td>
<td>Dr. Marcilio Franca UFPB</td>
</tr>
<tr>
<td>Developing national music education systems: What are knowledge based strategies? (Workshop)</td>
<td>Prof. Stefanie Stadler Elmer UZH - 2015-16</td>
<td>Dr. Mara Pinheiro Menezes UFBA</td>
</tr>
</tbody>
</table>
Activities: Supported projects in 2013-2016

AIT Programme
- 65 participants in the first 2 cycles
- Total cost of programme to date: CHF 677’000
  Example: **SWOXID** – Public health – Dr. Endre Hrovath – Winner of AIT Grant 2015
  *Non-electric solar irradiation-based purifier for safe water or air.*

Flash Research Programme
- 3 projects partnering with Brazil granted
- Total granted: CHF 900’000
  Examples:

  | In 2015, we are all indigenous’: Indigenism and the World Games of Indigenous Peoples (Palmas, Brazil, October 2015) | Prof. Isabelle Schulte-Tenckhoff | Graduate Institute of International Studies | Pontifical Catholic University Rio de Janeiro |
  | Sepsis-Associated Microorganisms in Brazilian Ambulatories (SAMBA) | Dr. Theo Smits | Zurich University of Applied Sciences | Pontifical Catholic University of Paraná (PUCPR) |
Funding institutions from Brazil

Examples of Co-funding source from the Brazilian side

(always provided by institution of Brazilian researcher):

- Universidad de Campinas
- Federal University of Paraiba
- Fiocruz Oswaldo Cruz Foundation
- Universidad Minas Gerais
- ICB, Federal University of Juiz de Fora
- Federal University of Rio de Janeiro
Challenges

- Lack of co-funding commitment from federal level (BRZ) – except AIT
  ➔ Strive to ensure co-funding commitment from the Federal state of Brazil for research programmes as well (Seed Money, FLASH)

- Sector focus: tendency to favour technology and leave social sciences aside
  ➔ rather keep open to all research fields

- Dependence on political calendars (4-years phases, elections, etc.)
Beyond 2016

Next phase 2017-2020

- Seed Money grants
- Academia-Industry Training
- FLASH Research
- Workshop grants
- Future JRP calls by SNSF with Brazil and India

.... to be confirmed
Thank you
Brazilian-Swiss scientific collaboration

Experiences and lessons learnt

- Prof. Frank A. Nüesch, EMPA and EPFL
- Dr. Verena Meier Kruker, PH Luzern
- Dr. Luca Varani, USI
- Dr. Grenz Jan, BFH
- Dr. Ata Tuna Ciftlik, Lunaphore Technologies