



2016 Seminar on Brazilian-Swiss scientific collaboration

EPFL – 26 April 2016



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Brazil-Swiss Research collaboration: Leading House activities

Julien Bettler
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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

Leading House

BSJRP Principles

- Scientific excellence
- Mutual interest
- Co-funding

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



Instruments & supported projects: 2008-2012 phase

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

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

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:

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

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