CAPES PRINT: opportunities for Ohio University and UFPB

Professor Marcia Fonseca Associate Professor, Dept. Economics Coordinator of Graduate Programs Graduate Office Federal University of Paraíba



FEDERAL UNIVERSITY OF PARAIBA UFPB GRADUATE OFFICE



About UFPB:

The Federal University of Paraíba (UFPB) is a Brazilian federal public higher education institution, located in the state of Paraíba, Brazil. Its main campus is in João Pessoa.

UFPB has three other campuses in Areia, Bananeiras and the North Coast (Rio Tinto and Mamanguape).

It was founded in 1947 and Economics was the first faculty.

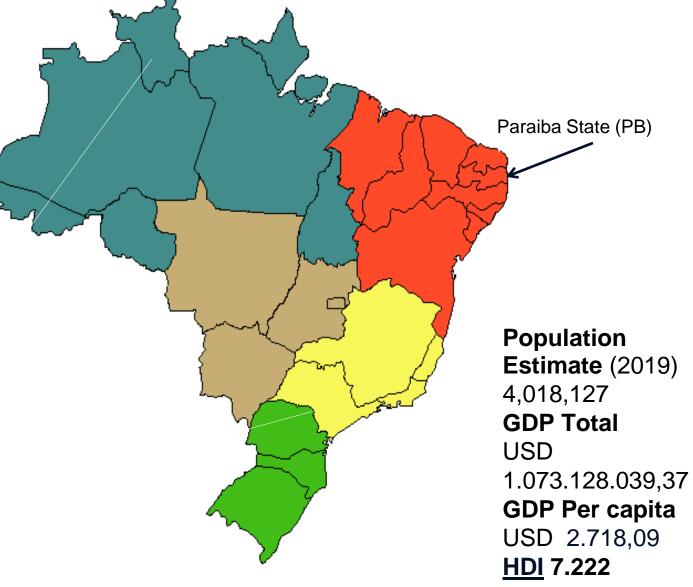
UFPB has 16 centers and 114 departments, 113 graduate courses and 128 undergraduate courses.

Over 39,000 students are enrolled.

Over 2.800 professors and 3.350 technical servers are working at UFPB.







The UFPB is the largest higher educational institution in the state of Paraíba. It is among the 100 best universities in Latin America according to the QS World University Ranking and *Times* Higher Education. 27th university in the country. 4th in north east region.





Social Sciences Center



Technology Center



Legal studies Center



University Hospital



GRADUATE PROGRAMS

Graduate Programs	Number	Enrolled Students						
Stricto Sensu Programs								
Graduate Programs	81	5.078						
Graduate Courses	113							
Foreign Students Enrolled		136						
Masters Courses	61	2.435						
Professional Masters Courses	13	362						
Total of Masters Courses	74	2.805						
Ph.D. Courses	40	2.466						
	Lato Sensu							
MBA and Residency		685						

CAPES/PRINT

07/12/2017





Categories: News

Tags: Brazil | Mobility programme | Outgoing | international collaboration

The Coordination of Improvement of Higher Education Personnel (CAPES) has launched the CAPES / PrInt programme, which will provide R\$ 300 million annually to support institutional projects for internationalisation.

In total, up to 40 projects will be selected. Proposals must be submitted by institutions, in English and Portuguese.

To participate in the selection, institutions must have at least four postgraduate programmes recommended by CAPES in the last two assessments and at least two PhD courses. Projects must last up to 4 years starting in August 2018. Benefits

The selected projects will receive resources for work missions abroad, scholarships in Brazil and abroad and include other funding actions duly approved by CAPES. The final result should be published in July 2018.

More details here

Deadline : 18 April 2018

CAPES/PRINT PROGRAM:

36 granted Universities

Funding:

Sandwich PhD Scholarships

Visiting Scholar Fellowships

Short-term missions

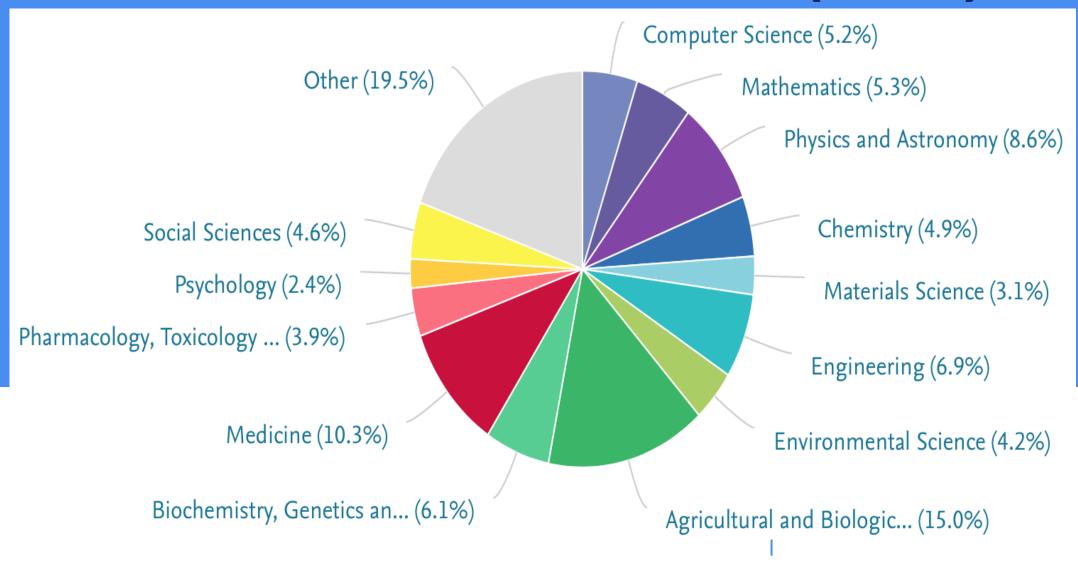
Maintenance Resources

Visiting Professors Program: inbound junior and sênior reseachers.

http://www.print.ufpb.br/PrInt

Source : "CCS/CAPES"

Research Areas UFPB (2019)



UFPB CAPES/PRINT PROGRAM:

HEALTH INTERVENTIONS, TECHNOLOGIES, PRODUCTS, AND PROCESSES

TERRITORIES OF DIVERSITY: EDUCATION, LANGUAGES, MEDIATION, CULTURAL AND PUBLIC POLICIES

CAATINGA BIOME, BIODIVERSITY AND SUSTAINABILITY **UFPB Budget:**

Theme 1: 902.504,30 USD Theme 2: 473.061,26 USD Theme 3: 559.367,60 USD

Total: 1.934.933,16 USD 11 projects 05 years 2019-2023

UFPB CAPES/PRINT - GRADUATE PROGRAMS

HEALTH INTERVENTIONS, TECHNOLOGIES, PRODUCTS, AND PROCESSES	TERRITORIES OF DIVERSITY: EDUCATION, LANGUAGES, MEDIATION, CULTURAL AND PUBLIC POLICIES	CAATINGA BIOME, BIODIVERSITY AND SUSTAINABILITY	
Pharmacology	Linguistics	Agronomy	
Chemistry, Nutrition Science, Nursing,	Sociology, Social Psychology , Economics	Zootechnics, Geography, Development and Environment	
Biotechnology, Linguistics	Education	Animal Science, Chemistry,	
Development and Technological Innovation in Medicines, Neuroscience,	Music, Informatics	Food Science and Technology	
Dentistry, Gerontology,	Religion Science , Legal Science	Architecture and Urbanism, Antropology	
Physical Education	Human Rights, Accounting, Administration	Biological Science	
Physiological Sciences	Literature, Information Science	Civil and Environmental Engineering	
Health decision models	Architecture and Urbanism		
(12 Programs)	(14 Programs)	(10 Programs)	

AREAS OF THE DEVELOPED PROJECTS

HEALTH INTERVENTIONS, TECHNOLOGIES, PRODUCTS, AND PROCESSES	TERRITORIES OF DIVERSITY: EDUCATION, LANGUAGES, MEDIATION, CULTURAL AND PUBLIC POLICIES	CAATINGA BIOME, BIODIVERSITY AND SUSTAINABILITY	
Biological, psychological, social and environmental factors and processes related to population health	Conceptions of spaces, territories and networks in contexts marked by diversity	Taxonomic and ecological aspects and evaluation of the anthropogenic actions in the Caatinga biodiversity	
Pharmacological and non- pharmacological interventions for chronic diseases and human development.	Social, educational, cultural, linguistic, and political mediation in contexts marked by diversity.	Impacts of the climatic changes on the management of the vegetal cover and on the (socio)biodiversity in the Caatinga Biome in Northeast Brazil	
Prospection, improvement, and design of technologic products and processes of Health interest.	Areas of diversity: systems of learning, reflexive practices and network dissemination of information.	"Omic" Sciences applied to the prevention of antimicrobial resistance at the human-animal-environment interface and the promotion of health and food safety in the Caatinga Biome: a One Health Approach.	
		Innovation in materials, products and processes associated with environmental conservation and sustainability	
		Sustainability and quality of urban centers and territorial and socio-environmental management.	

HOW DO THE CALLS PROCEED?

1) Simplified selection process for visiting professors;

2) **Sandwich PhD Scholarships** - directed exclusively to UFPB Graduate Programs selected for Capes-Print-UFPB

3) **Partnerships** that involve resource transfers, fees and reduction of academic fees, administrative or bench fees, must be formalized between UFPB and the foreign proposing institution ;

4) Visiting Scholar Fellowships and Short-term missions – need to be aproved by UFPB CAPES-PRINT Committee Board;

5) PhD thesis according to the International Cotutela Regime with Double Degree

ACTIVITIES OF THE PRINT PROJECT (2019)

- 24 Professors in Short-term missions
- 22 Professors in post-doctoral programs
- 21 Sandwich PhD Scholarships
- 200 participations (professors or students) in seminars and lectures in international institutions;

• 57 courses in international institutions and scientific events.

- 30 cooperation agreements were assigned.
- 66 visiting professor
- 12 PhD students in Cotutela regime (Double Degree)

Students in Co-Tutorship of Theses in the World at UFPB 2019:

12 STUDENTS:

5 ITALY

UNIVERSITÀ DEGLI STUDI DI FIRENZE;

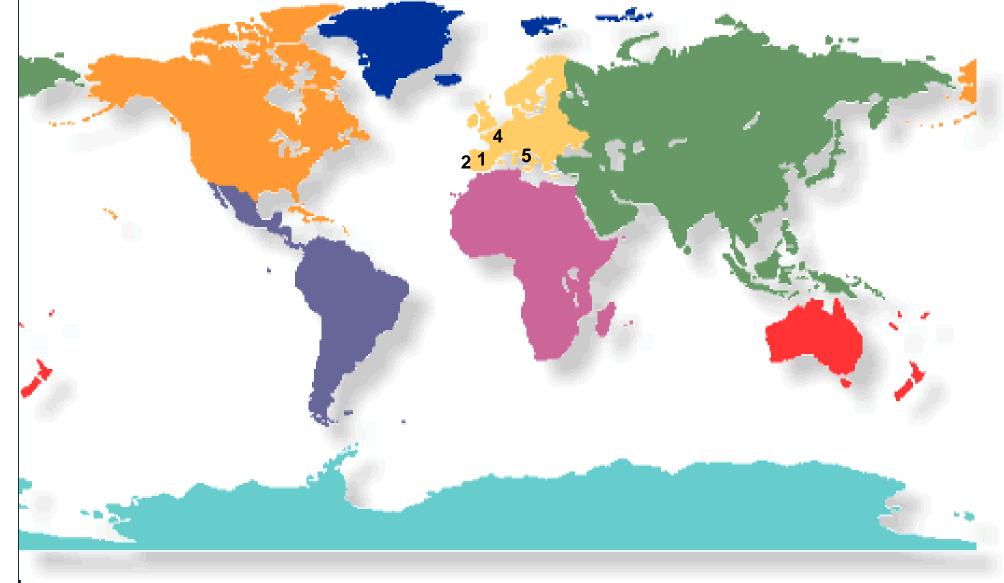
4 FRANCE

LA ROCHELLE UNIVERSITÉ, INSA, UNIVERSITÉ GRENOBLE ALPES, AND LITTORAL CÔTE UNIVERSITY D'OPALE;

2 PORTUGAL

UNIVERSITY OF COIMBRA AND UNIVERSITY OF MINHO; **1 SPAIN**

UNIVERSITY OF MALAGA.



24 RESEARCH MISSIONS: 5 PORTUGAL

UNIVERSITY OF COIMBRA, UNIVERSITY OF MINHO, UNIVERSITY OF LISBON, INSTITUTO POLITÉCNICO DE BRAGANÇA PORTUGAL;

4 USA

HARVARD UNIVERSITY, OHIO STATE UNIVERSITY, RUTGERS UNIVERSITY, UNIVERSITY OF GEORGIA;

3 SPAIN

UNIVERSITY OF VALENCIA, UNIVERSITY OF THE BALEARIC ISLANDS;

3 MEXICO

UNIVERSIDAD AUTÓNOMA DE AGUASCALIENTES; UNIVERSIDAD SAN CRISTÓBAL; NATIONAL UNIVERSITY AUTONOMOUS MEXICO;

3 FRANCE

UNIVERSITY NICE SOPHIAANTIPOLIS, UNIVERSITY NICE SOPHIAANTIPOLIS, ÉCOLE DE HAUTES ÉTUDES EM SCIENCES SOCIALES;

2 UNITED KINGDOM

UNIVERSITY OF READING, UNIVERSITY OF EXETER;

1 ITALY

UNIVERSITY OF BOLOGNA;

1 CANADA

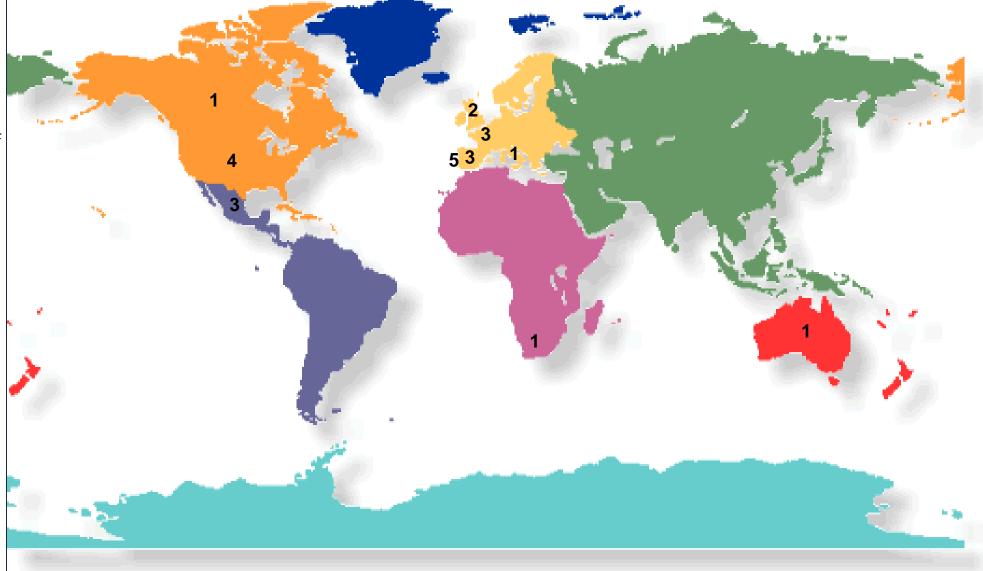
UNIVERSITY OF ALBERTA;

1 AUSTRALIA

UNIVERSITY OF NEWCASTLE;

1 SOUTH AFRICA UNIVERSITY OF SOUTH AFRICA, PRETORIA.

International Missions of Research Professors at UFPB 2019:



Thank you mbfmarcia@prpg.ufpb.br http://www.print.ufpb.br/PrInt



CAPES

UNIVERSIDADE FEDERAL DA PARAÍBA



Tema 3. Bioma Caatinga, Biodiversidade e Sustentabilidade Theme 3: Caatinga Biome, Biodiversity and Sustainability CAPES – PRINT JULY, 14th 2020



Australia

Belgium

Canada

France

Italy

Japan

Mexico

Spain

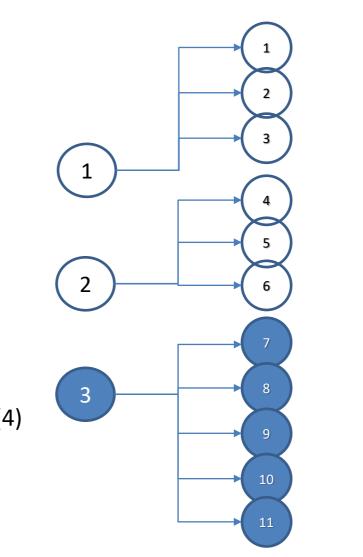
Sweden

United Kingdom

States United of America

Participating Postgraduate Programs

- PPG Chemistry (5)
- PPG Development and Environmental (5)
- PPG Geography (4)
- PPG Zootecny (5)
- PPG Agronomy (5)
- PPG Anthropology (4)
- PPG Animal Science (4)
- PPG Biological Science (5)
- PPG Civil and environmental engineering (4)
- PPG Architecture and Urbanism (4)
- PPG Food Science and Technology (4)



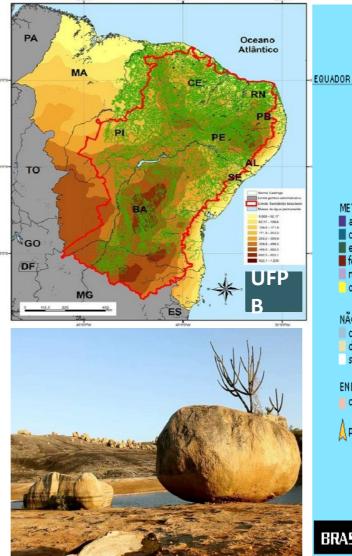


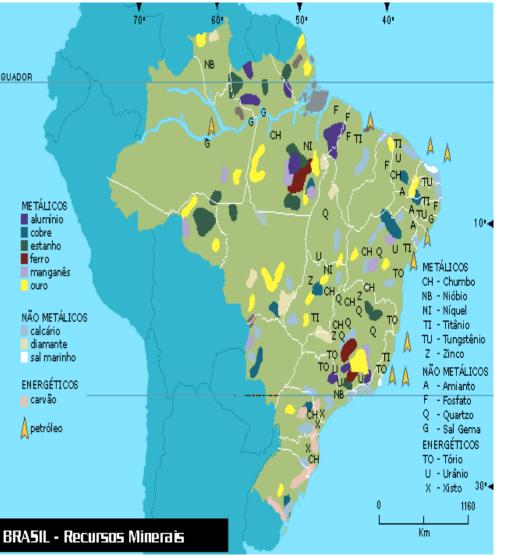


Caatinga biome area













Biodiversity of the Caatinga biome



Fauna



Flora







Bioeconomy



Silva et al., 2017





Caatinga Biome, Biodiversity and Sustainability Projects

1. Omics applied to the prevention of antimicrobial resistance at the humananimal-environment interface in the Caatinga Biome: a One Health Approach;

2. Innovation in Materials, Products and Processes Associated with Environmental Conservation and Sustainability;

3. Sustainability and quality of urban centers and territorial and socioenvironmental management;

4. Impacts of climate change on the management of vegetation cover and (socio) biodiversity in the Caatinga biome in Northeast Brazil;

5. Taxonomic Aspects and Ecological Evaluation of Anthrophic Actions in Caatinga Diversity





Theme 3: Caatinga Biome, Biodiversity and Sustainability

	PROJECT	BUDGET	PSDE Sandwich PhD		WORK MISSION	TRAINING MISSION
		R\$	6 months	1 year		
	1	681,636.80		12	10	
	2	877,703.00	09	01	09	02
	3	388,237.40		06	07	
	4	686,270.40	09		08	03
	5	444,614.40	06		06	
Gonçalves, AS (2020)		3,078,462.00	24	19	40	05





Omics applied to the prevention of antimicrobial resistance at the human-animal-environment interface in the Caatinga Biome:

a One Health Approach



PI: Prof. Celso Oliveira, DVM, PhD Dept. Animal Science, College for Agricultural Sciences (CCA), Areia/PB

Project interests

Comparative genomics of multi-drug resistant zoonotic pathogens from animals, food and the environment

Predictive models of development and dissemination of antimicrobial resistance in foodstuff

Bioprospection of antimicrobial alternatives from Caatinga



Partner Institutions and contact researchers



Theme 3 / Project 1



Project Budget: 681,656,80 BRL

- Sandwich PhD Scholarships: 2019 (2), 2020 (2), 2021 (1)
- Visiting Scholar Fellowships: 2021 (2)
- Short-term missions (7-21 days): 2019 (2), 2020 (2)

Kilmer O. Soares – PhD candidate currently at OSU/Veterinary College for a 1-year sandwich under the supervision of Prof. Vanessa Hale Research projet: Effect of antimicrobials on the gut microbiome of native honey bees in Brazil









Vice President and Provost Bruce McPheron with Vice President of Research Isac Medeiros and Professor Celso Oliveira.

OSU-UFPB MoU renewal, 2018





Innovation in Materials, Products and Process Associated with Environmental Conservation and Sustainability



Sub Project 01: Biorremediation as a tool for aquatic environments recovery

- Maria Cristina Crispim UFPB Brazil
- Ana Maria Geraldes Instituto Politécnico de Bragança Portugal

Project interests

Biorremediation: Biofilm as a bioremediator community

Producer biofilm in recovery

Degradator biofilm in prevention/decrease polution:BioMac system









Theme 3 / Project 2 Innovation in Materials, Products and Process Associated with Environmental Conservation and Sustainability



Sub Project 02: Synthesis, characterization and photocatalytic evaluation of nitrated lamellar tantalum-niobates.

- Prof. PhD. Ary da Silva Maia Chemistry Department, UFPB.
- UR1 Professor Maryline Guilloux-Viry CSM-ISCR, Université de Rennes 1.
- UR1 Assistant Professor Valerie Bouquet CSM-ISCR, Université de Rennes 1.
- INSA de l'équipe Chimie du Solide et Matériaux de l'Institut des Sciences Chimiques de Rennes (ISCR)

Project interests .

• Sandwich PhD Scholarships: 2018 (1) Short-term missions (7-21 days): 2018 (1)

CNRS Researcher – V&C-ISCR, Université de Rennes 1. Partnership with Université de Rennes 1, Rennes, France.

Development of photocatalysts for environmental remediation of aquatic environments.

Consolidated structure in the study of lamellar niobates, tantalates and tantaloniobates.



Theme: Caatinga Biome, Biodiversity and **Sustainability**

Project 3: Sustainability and quality of urban centres and territorial and socioenvironmental management

Coordinator: Prof. Dr. Geovany J. A. Silva

Post-Doctorate in Architecture (ULisboa) **Doctor of Architecture and Urbanism (UnB)** Master in Geography (UFMT) Graduation in Architecture and Urbanism (UFU)



Linked Postgraduate Programs: PPGAU, PPGA, PPGECAM Science Areas: Architecture and Urbanism / Civil and **Environmental Engineering / Anthropology** Start: 11/2018 End: 08/2022 (46 months) Knowledge / Research Area: Applied Social Sciences, **Engineering 1 and Humanities**

Funding and Organization:







Theme 3 / Project 3

Research impact for the state of the art on the theme Cities, Territorialities, Urban Centres and Sustainability;

Development of applied research in Architecture and Urbanism, Urban and Environmental Engineering;

Development of research in Anthropology;

Production of financed articles, theses, events and international projects;

Social impact for urban and rural communities;

Environmental impact for more sustainable urban and regional systems;

Application of more sustainable technologies for the Built Environment and Urban Quality in Central Areas;

Professors involved: 35 Students: 200 International Universities: 25 Publications: 15 articles in journals; 10 books; 13 chapters (2019/20)

Project Graduate Programs:









12 STUDENTS:

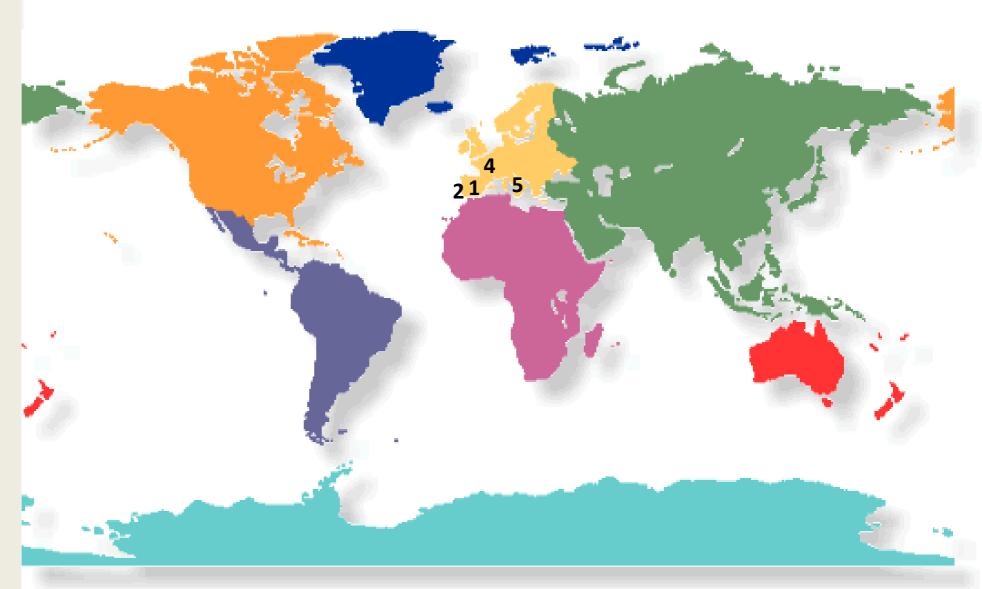
5 ITALY UNIVERSITÀ DEGLI STUDI DI FIRENZE;

LA ROCHELLE UNIVERSITÉ, INSA, UNIVERSITÉ GRENOBLE ALPES, AND LITTORAL CÔTE UNIVERSITY D'OPALE;

2 PORTUGAL

UNIVERSITY OF COIMBRA AND UNIVERSITY OF MINHO; **1 SPAIN**

UNIVERSITY OF MALAGA.



Students in Co-Tutorship of Theses in the World at UFPB 2019:

Theme 3 / Project 3 🚺

24 RESEARCH MISSIONS: 5 PORTUGAL

UNIVERSITY OF COIMBRA, UNIVERSITY OF MINHO, UNIVERSITY OF LISBON, INSTITUTO POLITÉCNICO DE BRAGANÇA PORTUGAL;

4 USA

HARVARD UNIVERSITY, OHIO STATE UNIVERSITY, RUTGERS UNIVERSITY, UNIVERSITY OF GEORGIA;

3 SPAIN

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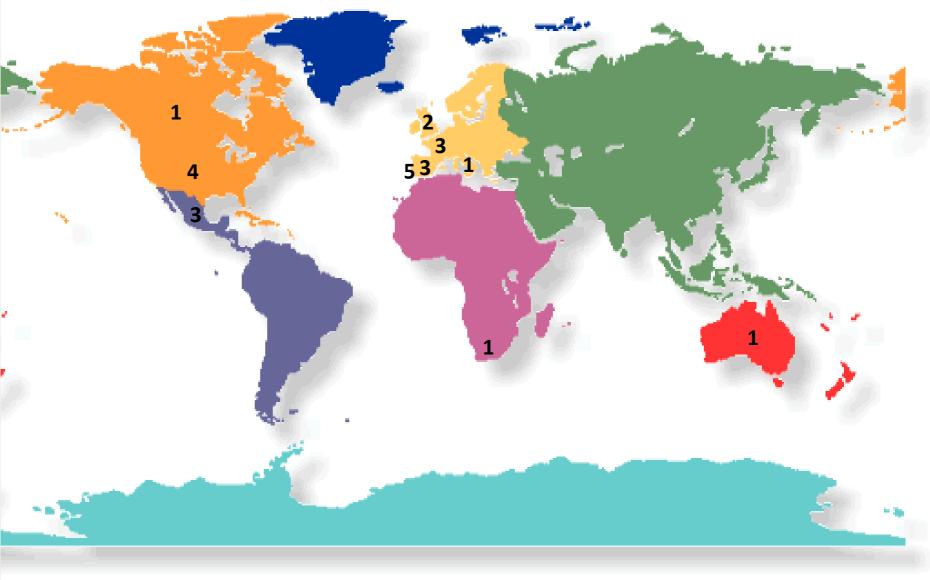
1 CANADA UNIVERSITY OF ALBERTA; 1 AUSTRALIA

UNIVERSITY OF NEWCASTLE; 1 SOUTH AFRICA

UNIVERSITY OF SOUTH AFRICA, PRETORIA.

Theme 3 / Project 3

International Missions of Research Professors at UFPB 2019:







Impacts of climate change on the management of vegetation cover and (socio) biodiversity in the Caatinga biome in Northeast Brazil

Project interests · Prof. PhD. Mailson M Rêgo

- (UGA) Horticulture

Professor Leonardo Pessoa Felix (UFPB)

- Prof. Gerardo Astolfo Salazar Chavez (UNAM), Professor Biscaia, from the University of Georgia Profa. Dra. Elizanilda Ramalho Department
- PhD Student Hanna Ibiapina de Jesus co-tutoring

Bioprospecting active ingredients (flora, fauna, microbiota) with economic potential

Trends in rain and drought time series and their relationship to the desertification process.

Socio-biodiversity and its impacts on the management and domestication of genetic resources carried out by semi-arid farmers

Impacts of climate change on the genetic diversity of Caatinga plants using genomic tools and select plants of economic interest that are resilient to water and saline stresses

Changes in land use and occupation and changes in the landscape resulting from anthropic pressure

Dynamics of the Caatinga, water resources and human actions, using international experiences in areas with similar environmental characteristics



Theme 3 / Project 5 🚺

Taxonomic Aspects and Ecological Evaluation of Anthrophic Actions in Caating Diversity



• Prof. Dr. Reinaldo Farias Paiva de Lucena

- Profa. Dra. Denise Dias da Cruz.
- PhD Student Ezequiel da Costa Ferreira
- Universidad Nacional Autónoma de México, Morelia, México
- Pesquisador Parceiro: Alejandro Casas

Project interests

Understanding traditional population relationship with genetic resources available in the Paraiba semiarid's agroflorestal system

Medicinal Plants



Innovation in Materials, Products and Process Associated with **Environmental Conservation and Sustainability**



Project interests

Sub Project 03: Technical Viable Prospecting of waste immobilization within Portland cement production and consumption chain

Portland Cement Science and Tecnology: Effect of microstrucutre on performance

Alternative and Renewable Sources with Agroindustrial Waste in Construction Materials

Recycling Technologies for Sustainable Development





Associate Professor











Cement and Concrete Research Volume 136, October 2020, 106125

Portland cement tricalcium silicate: Bond

V. Fernandes ^a, S.M. Torres ^{a, c} ^A ⊠, C.A. Kirk ^b, A.F. Leal ^a, M.R. Lima Filho ^a, D. Diniz ^a

valence assessment of the alite M1 polymorph

crystal structure using synchrotron XRPD data



Incorporation of minor constituents into





St Mary's CEMEX Lafarge-Holcim

Elizabeth Cimentos Intercement Lafarge-Holcim

Incorporation of minor constituents into Portland cement tricalcium silicate: Bond valence assessment of the alite M1 polymorph crystal	0 Citations
structure using synchrotron XRPD data	9
Fernandes W, Torres S, Kirk C et al. See more	Readers
Cement and Concrete Research (2020)	202

Lisa Burris, Ph.D. Assistant Professor Advanced Cementitious Materials Research Group Advancing Sustainability and Durability in Cement-Based





Sandro Marden Torres, Ph.D. Full Professor Mechanical Engineering Department TECNOM- New Materials Technology Lab sandromarden@ct.ufpb.br

I was awarded a PhD by the University of Sheffield in 2004. I joined the Federal University Paraíba in 2005 as a Lecturer in Materials Science and Engineering. I was appointed Assistant Professor in 2008 and Full Professor in 2019 in acknowledgement of my work in research, teaching and collaboration with the regional industry. During his previous experience as Civil Engineer, I was responsible for the construction of several multistory buildings and was a company owner, where he innovated by being specialized in accelerated concrete structures by integrated design and production approaches. I have published 73 papers in international journals (38) and conferences (35) with two industrial patents. I was also in the committee responsible for implementing both the Engineering Materials Undergraduate Course and the Science and Engineering Post-Graduate Programme- PPCEM (Masters and Doctoral Levels) at the UFPB. I have supervised over 14 undergraduates, 20 Masters, 22 PhDs and 4 Postdocs, and currently supervise 6 Masters and 10 Ph.Ds. I have organized three international symposia (FUNCMAT-Functional Materials I and II, ISCM2014-International Symposium in Cementitious Materials within the BMRS-Brazilian Materials Research Society) and co-organized the NOCMAT 2013-International Congress of Nonconventional Materials, hosted in the UFPB, with delegates from 24 countries. I idealized and coordinate the New Materials Technology Lab, a facility dedicated to supply strong scientific bases for sustainable regional industrial development with microstructure characterization techniques (Scanning Electron Microscopy, Energy Dispersive Spectroscopy, Thermal Methods, X-ray Diffraction, IR spectroscopy, X-ray fluorescence). With its infrastructure, I coordinate a research interdisciplinary team of 8 academics and 2 technical staff,, dedicated to provide highlevel technical consultancy for government and industrial sectors, with the amount of R&D grants above 600,000GBP from both public and private sectors. With strong links with The Elizabeth Cement Group, several academic partnerships have been consolidated along the issue of "Sustainable cements – influence of alternative fuels on reactivity and durability of cement", involving strong international partnerships outside Brazil.



Federal University of Paraíba - UFPB Dean of Graduate Studies CAPES PrInt Project Workshop

Project One - Theme Two

Social, educational, cultural, linguistic, and political mediation in contexts marked by diversity

Prof. Dr. José Ferrari Neto Departament of Linguistics and Portuguese Language Head of Graduate Program in Linguistics - PROLING

Participants

Graduate Programs

Linguistics- PROLING
Social Sciences - PPGS
Social Psychology - PPGPS
Education - PPGE
Management - PPGADM
Human Rights - PPGDH
Law Sciences - PPGCJ
Literature - PPGL
Sciences of Religions - PPGCR
Music - PPGM

Goals of the Theme/Project

•Goal 1 - To solidify and expand the internationalization of programs that investigates the social, educational, cultural, linguistic, and political mediation.

•Goal 2 - To consolidate and to expand the internationalization of programs that discuss the conceptions of spaces, territories and networks, as well as the construction and the evaluation of public policies.

•Goal 3 - To consolidate a policy of network dissemination of research developed in the programs that participate in the territories of the diversity project in the perspective of internationalization.

Description of the Project (I)

The following researches will be developed:

1) On violations of human rights, crimes and mass genocides that have been perpetrated in various countrie, as well as mapping of perpetrators of violations of human rights and crimes against humanity in important national and international documents, in the fields of art, literature, philosophy, memory, information, and media culture;

2) On theoretical aspects of historical and social dimensions that have influenced the trajectory of music education institutionalized in Brazil, showing inclusions, exclusions and other marks left by colonialism that has outlined such a process in Brazil and other Latin American countries and the USA;

3) On literatures of minorities, indigenous and afro-Amerindian, from a comparative perspective;

4) On the relationship between language and education, the formation of teachers and social representations of the teaching practice, as well as on the processing and acquisition of language linked to the knowledge of the development of language competences;

Description of the Project (II)

5) On the different forms of expression of the religious phenomenon, their languages, the mythic dimensions, the social integration of religions, its presence in education, relations with other spheres of society, the imaginary constructed in different cultural contexts, under the historical and ethnographic perspectives;

6) On the construction of proposals able to boost the didactic-pedagogical actions in the direction of success in education, promoting knowledge through digital literacy;

7) on (trans)judiciality, democracy, and economic effects of power, diversity of legal systems in jus-political spaces;

8) studies on various sectors of civil society with the actions of human rights commissions and the strengthening of relations between partners of Unesco Chair;

9) on the formation and the activities of school managers in Brazil and in the countries involved to share experiences and develop joint solutions.

Actions and Resources

Work Missions

Year	Quantity	Amount (in Brazilian currency)
2019	4	115.516,00
2020	4	115.516,00
2021	4	115.516,00
2022	4	115.516,00

Actions and Resources

Scholarships associated to the Research

Drojoct

Year	Quantity	Modality	Amount
2019	4	Sandwich Doctorate Fellowship (6 months)	80,956.80
2020	4	Sandwich Doctorate Fellowship (6 months)	80,956.80
2021	4	Sandwich Doctorate Fellowship (6 months)	80,956.80
2022	4	Sandwich Doctorate Fellowship (6 months)	80,956.80

Contacts

•Linguistics- PROLING: proling@cchla.ufpb.br •Social Sciences - PPGS: ppgs.ufpb@gmail.com •Social Psychology - PPGPS: ppgps.ufpb@gmail.com •Education - PPGE: mepcarv@gmail.com •Management - PPGADM: profsamir.adm@gmail.com •Human Rights - PPGDH: gustavobm.batista@gmail.com •Law Sciences - PPGCJ: ppgcj.ufpb@gmail.com •Literature - PPGL: robertoassis@cchla.ufpb.br •Sciences of Religions - <u>PPGCR:dicaufpb@gmail.com</u>

•Music - PPGM: <u>fieldacosta@gmail.com</u>



The Ohio State Brazil Gateway

Theme 1: Health Interventions, Technologies, Products, and Processes

Prof. Julio S. Reboucas Department of Chemistry Univ. Federal da Paraiba jsreboucas@quimica.ufpb.br

CAPES

PrInt

UFPB has solid international partnerships on:

- Health interventions: theoretical and experimental developments of methodologies for prevention, treatment, and control of chronical diseases;
- Human behavior, palliative care, and complimentary therapies: including environmental factors on Health;
- Health technology developments, such as software, virtual environments, decision making models, clinic and pre-clinic trial, diagnostic kits, and analytical control;
- Prospection and Development of Health products and processes: including probiotics, synthetic experimental therapeutics, natural products, biomaterials and computational modeling.

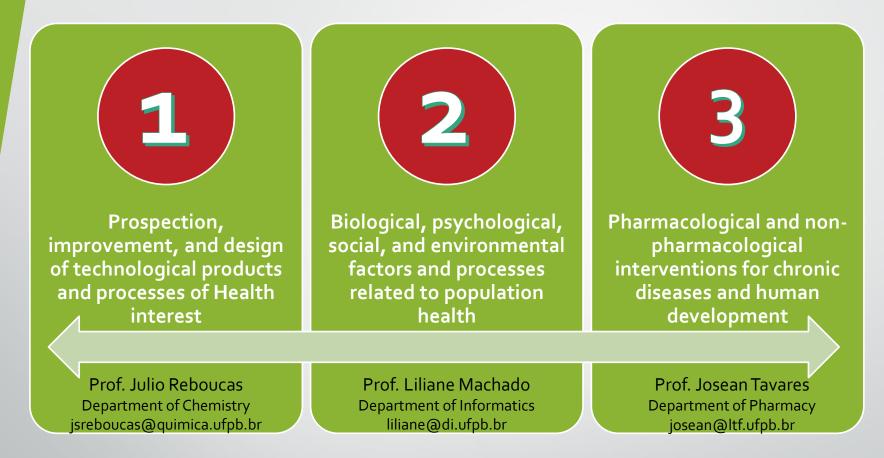
Potentially able to foster actions in public health, particularly drug discovery and nursing.

Recognized excellence on human resources training and knowledge production within Northeastern Brazil

Modern shared-core facilities (some labs of international multiuser nature)

5 Health-related National Institutes of Science and Technology (INCT), one of which is headquartered at UFPB.

Theme 1 Core Projects:

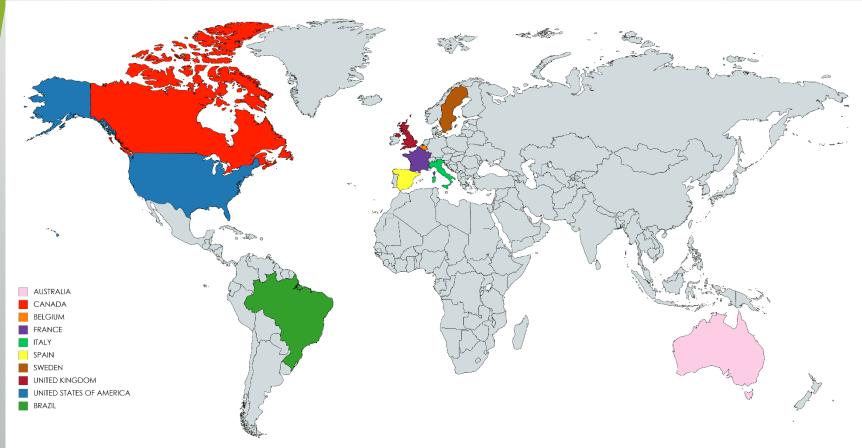


Resources allocation (common to all Theme 1 core projects)

- International outbound long-term mobility:
 - Senior or Junior Visiting Professorships Abroad (PVE)
 - Doctoral "Sandwich" Scholarships Abroad (PDSE)

> 9 Countries of interest:

(based on Graduate Programs ongoing international collaborations)



Created with mapchart.net ©

> 12 Graduate Programs (GPs):

- Natural and Synthetic Bioactive Products [Capes Grade 6]
- Linguistics [Capes Grade 6]
- Biotechnology Renorbio Network [Capes Grade 5]
- Chemistry [Capes Grade 5]
- Health and Decision Models [Capes Grade 5]
- Nursing [Capes Grade 5]
- Cognitive Neuroscience and Behavior [Capes Grade 4]
- Dentistry [Capes Grade 4]
- Multicenter Program in Physiology [Capes Grade 4]
- Nutrition Sciences [Capes Grade 4]
- Physical Education [Capes Grade 4]
- Development and Technological Innovation in Medicines [Capes Grade 4]

Project 1: Prospection, improvement, and design of technological products and processes of Health interest

 The internationalization efforts within this project aims at meeting chemical, pharmacological, and social demands of interests to, for example, chronic disease, oral health, and speech disorder interventions and diagnoses.

Major areas:

- Prospection of natural products
- Computational modeling
- Experimental therapeutics and formulations
- Dental biomaterials
- Participating Graduate Programs:
 - Biotechnology Renorbio Network
 - Chemistry
 - Dentistry
 - Development and Technological Innovation in Medicines
 - Natural and Synthetic Bioactive Products

Resources for Project 1:

Unassigned

PVE

PDSE

2

10

- Project Maintenance budget:
 - R\$ 10,000.00 (US\$ 1,875) per year
 - Total: R\$ 40,000.00 (US\$ 7,500)

• Scholarships:

Year	Scholarship type	Beneficiaries
2019	PDSE (12 months)	1
2019	Junior PVE (6 months)	1
	Senior PVE (12 months)	3
2020	Junior PVE (12 months)	2
2020	PDSE (12 months)	6
2021	PDSE (12 months)	4
	PDSE (12 months)	1
2023	Senior PVE (12 months)	1
	TOTAL	19
	Budged	US\$ 310,000.00

2019 subprojects within Project 1:

Scholarships:

Туре	Beneficiary	Program	Institution	Country
PDSE	Sanierlly Nascimento	Chemistry	Univ. of Alberta	Canada
Junior PVE	Prof. Ricardo Castro	Dentistry	Univ. of Pittsburgh	USA
Senior PVE	Prof. Sherlan Lemos	Chemistry	Univ. of Lincoln	UK
Senior PVE	Prof. Valdir Braga	Nat. Synth.	Karolinska Inst.	Sweden
		Bioact. Prod.		
Senior PVE	Prof. Elizete Ventura	Chemistry	Aix Marseille Univ.	France
"BONUS"				
Sabbatical	Prof. Karen Weber	Chemistry	Univ. of Lincoln	UK
Sabbatical	Prof. Silmar Andrade	Chemistry	Aix Marseille Univ.	France

> 2019 Research topics:

- New electroanalytical technologies for health
- Molecular dynamics docking protocols for drug design
- Biomaterials as revitalizing root canal implants
- Polymeric formulations with Brazilian fruit bioactive compound for facilitated oral administration of drugs
- Organic nitrates for treatment of cardiovascular diseases
 - Molecular Photochemistry Applied to Medical and Health Problems

Project 2: Biological, psychological, social, and environmental factors and processes related to population health

The internationalization efforts within this project aims at evaluating evidences on the influence of interventions on biological, psychological, social, and environmental factors and processes related to the health of special populations, particularly those with cardiovascular problems, elderly, and individuals with voice and speech disorders.

Major areas:

- Decision models for multidisciplinary intervention
- Physical activity and health
- Voice and speech disorders
- Participating Graduate Programs:
 - Health and Decision Models
 - Linguistics
 - Physical Education



Resources for Project 2:

• Scholarships:

	Year	Scholarship type	Beneficiaries
	2019	Junior PVE (6 months)	1
Unassigned	2020	Senior PVE (12 months)	2
Contractor of the Contractor	2020	PDSE (12 months)	3
5 PVE	2021	Senior PVE (12 months)	2
	2021	Junior PVE (6 months)	1
	2023	PDSE (12 months)	1
4 PDSE		TOTAL	10
		Budged	US\$ 185,000.00

> 2019 subprojects within Project 2:

TypeBeneficiaryProgramInstitutionCountryJunior PVEProf. Clarice MartinsPhys. Educ.Coventry Univ.UK

2019 Research topics:

Epidemiology, physical education and heath

Project 3: Pharmacological and non-pharmacological interventions for chronic diseases and human development

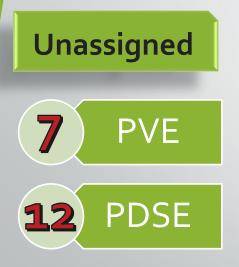
Major areas:

- Phytopharmaceuticals
- Care technologies and nursing care
- Neuropsychological changes in dementia
- Physical activity as non-pharmacological treatment
- Neurophysiology, cardiovascular physiology, immunology
- Nutritional interventions
- Participating Graduate Programs:
 - Cognitive Neuroscience and Behavior
 - Dentistry
 - Multicenter Program in Physiology
 - Natural and Synthetic Bioactive Products
 - Nursing
 - Nutrition Sciences
 - Physical Education

Resources for Project 3:

- Project Maintenance budget:
 - R\$ 10,000.00 (US\$ 1,875) per year
 - Total: R\$ 40,000.00 (US\$ 7,500)

Scholarships:



Year	Scholarship type	Beneficiaries
2019	Senior PVE (12 months)	1
2019	PDSE (12 months)	4
2020	Senior PVE (3 months)	1
2020	Senior PVE (12 months)	3
2020	PDSE (12 months)	5
2020	Junior PVE (6 months)	2
	PDSE (12 months)	4
	Senior PVE (12 months)	1
2023	PDSE (6 months)	3
	Total	24
	Budged	US\$ 380,000.00

> 2019 subprojects within Project 3:

• Scholarships:

Туре	Beneficiary	Program	Institution	Country
Senior PVE	Prof. Frederico Sousa	Dentistry	Indiana Univ.	USA
PDSE	Carlos Veloso	Nat. Synth. Bioact. Prod.	Univ. La Rochelle	France
PDSE	Ryldene Cruz	Nat. Synth. Bioact. Prod.	Univ. Claude Bernard	France
PDSE	Airlla Cavalcanti	Nat. Synth. Bioact. Prod.	Karolinska Inst.	Sweden
PDSE	Juliana Gomes	Nat. Synth. Bioact. Prod.	Univ. Mississipi	USA

> 2019 Research topics:

- Methodologies for enamel protection against tooth decay
- New molecules controlling the mechanisms of arterial hypertension
- New natural product molecules against human melanoma
- Bioprospecting of secondary metabolites with antioxidant activity
- Effects of thiophene derivatives on glutamatergic NMDA receptors

Selected 2019 UFPB funding (in return) to Theme 1:

• Visiting Professorship in Brazil (foreigner beneficiary):

- Prof. Eugene Muratov (Univ. of North Carolina USA)
- 2-year contract: Natural and Synthetic Bioactive Products Program

Accommodation for visiting professor (1-week mission):

- Prof. Mario Barbatti (Aix Marseille University France)
 - International signatory for Project 1 on CAPES
 - Opening Plenary Lecture on XX SBQT 2019
- Chem. Grad. Program co-sponsored a "Columbus in" session in Brazil: Columbus in João Pessoa
 - A Quantum Chemistry Course on Multireference Methods, Energy Surfaces and Excited States (30 hours – 2 credits)
 - Instructor: Prof. Hans Lischka (Texas Tech University USA)
 - Instructor: Prof. Dana Nachtigallova (The Czech Acad. of Sci. Czech Rep.)

Attendance: 50 faculties and students from Brazilian Institutions