



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 4356

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Bioscienze**, Scientist- in - charge **Dr. Alessandro Fantin**

**Alison Domingues**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Alison
Name	Domingues
Date of birth	26/04/1988

### PRESENT OCCUPATION

Appointment	Structure
PhD student with a research scholar position	James Graham Brown Cancer Center, Stem Cell institute - University of Louisville, Kentucky, USA

### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Master of Science	Paris Descartes	2015
Specialization	Pharmacology and Drugs science, Integrates clinical and preclinical pharmacology		
PhD	Biology, Medicine and Health - Biotherapies	Paris Diderot	Not finished, thesis defence on 20/11/2019
Master			



Degree of medical specialization	Doctor of Pharmacy	Paris Descartes	2017
Degree of European specialization			
Other	University degree in Animal surgery	Paris Descartes	2017
Other	University degree in Animal testing	Paris Descartes	2015

## REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City

## FOREIGN LANGUAGES

Languages	level of knowledge
French	Native language
Portuguese	Bilingual proficiency
English	Professional working proficiency
Spanish	Limited working proficiency

## AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2015-2018	French Ministry of Research 3 years grant for PhD
2016	NSFA (Nouvelle Société Française d'Athérosclérose) 2 months mobility grant
2015	Best Poster Award at SFA meeting (Société Française d'Angiogenèse)

## TRAINING OR RESEARCH ACTIVITY

<p>description of activity</p> <p><b>2018-2019 - University of Louisville, James Graham Brown Cancer Center, Stem Cell institute :</b>  <i>Differentiation of umbilical-cord-blood-derived very small embryonic-like stem cells (VSELs) into functional endothelial cells in vitro.</i></p> <p><b>Model:</b> Endothelial cells, Progenitor endothelial cells, Very Small Like Embryonic Stem cells</p> <p><b>Themes:</b> Stem cells, angiogenesis, endothelial differentiation, regenerative medicine</p> <p>Cytometry, Cell sorting, Isolation and characterization of the cells, Endothelial functional assays</p>
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(proliferation, adhesion, migration) *in vitro* Angiogenesis assays (tubulogenesis, 3D sprouting), *in vivo* Angiogenesis assays (matrigel plug)

**2015-2018- Master and PhD IthEM lab Inserm UMRS1140, Université de Paris + MitoVasc lab Inserm UMRS 6015, Université d'Angers :**

*Endothelial TXNIP (Thioredoxin-interacting Protein) implication in a vascular aging model and in post-ischemic angiogenesis*

**Models:** Mice, Endothelial Cells, aging model, hind limb ischemia model

**Themes:** oxidative stress and inflammation, angiogenesis, vascular aging, metabolic stress, endothelial dysfunction

Handling mice breeding and phenotyping, / Treatment by nanoparticles (siRNA based therapy) / Surgery: hind limb ischemia model monitored with laser doppler and microCT / *ex vivo* Angiogenesis assays = Organotypic culture (aortic ring assay) / Vascular reactivity (myography) / Immunohistofluorescence or immunohistochemistry technics / Molecular biology: Western blot, dot blot, ELISA, RT-PCT, RNA extraction and purification / Endothelial progenitor cell culture, Flow cytometry, siRNA transfection, angiogenesis assays.

**2013-2014- Research internship at ICM (Brain and Spine institute) and Theranexus company :**

*Modulating connexins in Amyotrophic Lateral Sclerosis*

**Model:** zebrafish, ALS mutants

**Themes:** oxidative stress and inflammation, neurodegeneration

RT-PCR, RNA Extraction and purification, Western Blot / Micro injections of morpholinos / behaviour analysis : Actimetry, movement analysis / Drug screening

**2012-2013 – Pharmacy internship, Le Raincy-Montfermeil Hospital and Sao Joao Hospital (Porto) :**

Survey about the impact of Geriatric Drug Guidelines on the quality Requirement of Elderly patients / Assessment of Occupational Practices on the prescription of PPI (Proton Pump Inhibitor)...

**2010-2011 – Research internship at ViVa team, EA 4466, Université de Paris :**

*Resveratrol effects on cardiovascular aging*

**Models:** Mice

**Themes:** oxidative stress and inflammation, vascular aging, endothelial dysfunction



Molecular biology: Western blot, ELISA, qPCR, RNA Extraction and purification / Histology

## PROJECT ACTIVITY

Year	Project
2018-2019	Differentiation of umbilical-cord-blood-derived very small embryonic-like stem cells (VSELs) into functional endothelial cells <i>in vitro</i> .
2015-2018	Endothelial TXNIP (Thioredoxin-interacting Protein) implication in a vascular aging model and in post-ischemic angiogenesis
2013-2014	Modulating connexins in Amyotrophic Lateral Sclerosis
2010-2011	Resveratrol effects on cardiovascular aging

## PATENTS

Patent

## CONGRESSES AND SEMINARS

Date	Title	Place
2018	<i>Reduced TXNIP (Thioredoxin-Interacting Protein) endothelial expression protects from impaired angiogenesis induced by metabolic stress</i>	IVBM (International Vascular Biology Meeting), Helsinki, Finland
2017	<i>Thioredoxin interacting protein endothelial deletion protects from alterations of angiogenic process in adult mice submitted to vascular accelerated aging</i>	ISTH (International Society on Thrombosis and Haemostasis), Berlin, GERMANY
2017	<i>Systemic nanoparticle delivery of siRNA for Thioredoxin Interacting Protein protects from aging</i>	NSFA (New French Society in Atherosclerosis), Biarritz, FRANCE)
2017	<i>Thioredoxin interacting protein endothelial deletion protects from alterations of angiogenic process in adult mice submitted to vascular accelerated aging</i>	GRRC (Research group in Cardiology), Nantes, FRANCE
2016	<i>Endothelial Txnip KO mice are protected from accelerated arterial aging</i>	GRRC (Research group in Cardiology), Nantes, FRANCE
2015	<i>High Protein, Low Carbohydrate diet</i>	SFA (French Society in Angiogenesis), Paris,



	<i>induced alterations of angiogenic process in adult mice</i>	FRANCE - Poster presentation - Best poster award
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PUBLICATIONS

Books
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]
[title, place, publishing house, year ...]

Articles in reviews
Reduced endothelial thioredoxin-interacting protein protects arteries from damage induced by metabolic stress in vivo, <b>FASEB</b> , 2019
Novel View of the Adult Stem Cell Compartment - A developmental Story of Germline and Parental Imprinting, <b>Proceedings of Stem Cell Research and Oncogenesis</b> , 2019
ATP-Nlrp3 Inflammasome-Complement Cascade Axis in Sterile Brain Inflammation in Psychiatric Patients and its Impact on Stem Cell Trafficking, <b>Stem Cell Reviews and Reports</b> , 2019
Impact d'un livret thérapeutique sur la qualité des prescriptions médicamenteuses des résidents d'EHPAD (Impact of Geriatric Drug Guidelines on the Quality Requirement of Elderly Patients), <b>Thérapie</b> , 2015

Congress proceedings
[title, structure, place, year]
[title, structure, place, year]
[title, structure, place, year]

OTHER INFORMATION

Representative of PhD Students in the MTCI doctoral school 2016-2018 (Participation to scientific council, Admission)
YRLS (Young Researchers in Life Sciences) Scientific committee board member (Program team member, Organisation of the YRLS international conference in 2016)

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Louisville, 02/10/2019

SIGNATURE