



Sara DOUCEAU

Ph.D
INSERM U1237, PhIND
tPA and Neurovascular Disorders


French nationality
08/14/1991

CONTACTS

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SKILLS

PHYSIOLOGY

Stereotaxic injections of AAV vectors
In utero electroporation in mice
Intracardiac perfusion
Tissue collection
Blood sample collection

MOLECULAR BIOLOGY

RNA and protein extraction
Fibrin agar zymography
PCR

BEHAVIORAL TEST

Barnes maze/Y-maze
Open-Field
O-Maze/DL box
Fear conditioning

CELLULAR BIOLOGY

Primary cortical neuron culture
Primary astrocyte culture
Primary interneuron culture
Transfection
Immunocytochemistry

HISTOLOGY

Cryostat
Immunohistochemistry

MICROSCOPY

Confocal
Epifluorescence

EDUCATION

Ph.D
Since 2016

UNIVERSITY OF NORMANDIE , Caen
PhIND, INSERM U1237, team «tPA and Neurovascular Disorders » directed by Pr. Denis Vivien, Ph.D.
Ph.D in cellular and molecular biology
Ph.D Director: Dr Véronique Agin, Ph.D.
Research's topic : Involvement of cerebral tPA in behavioral regulation and perineuronal nets remodeling

Master's degree
2013-2016

UNIVERSITY OF NORMANDIE , Caen
Master of Biology in Neuroscience

UNIVERSITY JOSEPH FOURIER, Grenoble
Master of cellular and molecular biology

Bachelor's degree
2013-2014

UNIVERSITY OF POITIERS, Poitiers
Bachelor Degree in Biology – Physiology and Neuroscience

EXPERIENCE

Internship
2016, 10 months

UNIVERSITY OF NORMANDIE , Caen
PhIND, INSERM U1237, team «tPA and Neurovascular Disorders »
Subject : Establishment of a tPA conditional knock-out model in vitro, in utero and in vivo using tPA Floxed mouse model.

Internship
2015, 2 months

UNIVERSITY OF NORMANDIE , Caen
PhIND, INSERM U1237, team « tPA and Neurovascular Disorders »
Subject: Characterization of tPA involvement in Alzheimer disease using the Thy-Tau22 mouse model.

Internship
2014, 2 months

UNIVERSITY JOSEPH FOURIER, Grenoble
Hypoxia and Pathophysiology, INSERM U1042
Effects of Obstructive sleep apnea Syndrome on vascular smooth muscle contractility using an intermittent hypoxia protocol in a rat model.

Internship
2013, 2 months


UNIVERSITY OF POITIERS, Poitiers
Ionic Transport and Cystic Fibrosis, CNRS ERL 7368 – Institute of Physiology and Cellular Biology
In vitro assessment of the efficiency of a corrector of F508del-CFTR defective trafficking in MM39 healthy bronchial cell line.


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PUBLICATIONS

Pasquet N, **Douceau S**, Naveau M, Lesept F, Louessard M, Lebouvier L, Hommet Y, Vivien D, Bardou I. Tissue-Type Plasminogen Activator Controlled Corticogenesis Through a Mechanism Dependent of NMDA Receptors Expressed on Radial Glial Cells. *Cereb Cortex*. 2019

Douceau S, Lépine M, Devienne G, Prunotto P, Lenoir S, Lebouvier L, Agin V, Lambolez B, Cauli B, Hommet Y, Ali C, Vivien D. tPA originating from parvalbumin interneurons controls the plasticity of perineuronal nets—In preparation.

Douceau S, Hommet Y, Lebouvier L, Agin V, Vivien D. Tissue plasminogen activator expressed in pkc-delta positive gabaergic neurons within the central amygdala controls anxiety-like behavior in mice—In preparation

CONGRESS

- Oral presentation -

Society for Neuroscience Congress, October 19th-23rd, 2019, Chicago, USA: tPA-dependant behavioral brain mapping. Nanosymposium #723 : Neural and Molecular Mechanisms of Memory. **Douceau S**, Hommet Y, Lebouvier L, Agin V and Vivien D.

Annual meeting of LARC-Neurosciences Network, October 19th, 2018, Rouen, France : Tissue plasminogen activator(tPA) drives cortical expansion. **Douceau S**, Hommet Y, Lebouvier L , Agin V. and Vivien D.

EdNBISE Congress, 22Th-23th of March 2018, Rouen, France. Structure dependant role of tissue plasminogen activator in cognitive functions. **Douceau S**, Hommet Y, Lebouvier L , Vivien D and Agin V.

1st Joint Meeting of ISFP and PA Workshop , Nihondaira Shizuoka, Japan, October 17th-21th 2016. The neuronal tPA contributes to the physiological corticogenesis by promoting NMDA receptors signaling in the glial radial fibers. Pasquet N, Naveau M, Douceau S, Lesept F, Hommet Y, Lebouvier L, Vivien D, Bardou I.

- Poster presentation -

Gordon Research Conference « Plasminogen activation and extracellular proteolysis », February 09th-14th 2020, Ventura, USA: tPA controls the remodeling of perineuronal nets in parvalbumin interneurons. **Douceau S***, Lépine M*, Hommet Y, Lebouvier L, Agin V, Ali C and Vivien D.