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APPLICATION TO POST-DOCTORAL POSITION

Date of birth: April 5, 1994

Citizenship: French

EDUCATION AND PROFESSIONAL EXPERIENCE

**Oct 2017 –
Sept 2021**

PhD in Physiopathology and Pharmacology

- › I2MC, INSERM UMR1297, University Toulouse III - Paul Sabatier, Toulouse, France
- › **Title:** Transcriptional control of adipocyte through nuclear hormone-sensitive lipase and ChREBPβ
- › **Directors:** Prof. Dominique Langin and Dr. Etienne Mouisel

2016 - 2017

Master degree (2nd year) • Pharmacological Innovation • 1st/17

- › Paul Sabatier University, Toulouse, France
- › **Internship:** Improvement of insulin sensitivity through hormone-sensitive lipase inhibition: role of adipocyte secretion
- › **Advisor:** Prof. Dominique Langin

2015 - 2016

Master degree (1st year) • Biology and Health • Physiopathology •

- › Paul Sabatier University, Toulouse, France
- › **Internship:** Role of neutral sphingomyelinase type 2 in the development of atherosclerosis
- › **Advisor:** Dr. Nathalie Augé

2012 - 2015

Bachelor's degree • Life and Health Science • Cellular Biology and Physiology •

- › Faculty of Science and Technology, Limoges, France
- › **Voluntary Internship:** Inflammatory Diseases of the Central Nervous System - Advisor: Isabelle CADENAT
- › **Voluntary Internship:** Pi3K signaling and atherosclerosis - Advisor: Dr. Véronique Pons

TEACHING ACTIVITY

2017 - 2020

Student tutoring • Animal Physiology • Bachelor's degree

› *University Toulouse III - Paul Sabatier, Toulouse, France*

› **Experimental works:** *Mitochondrial activity in adipose tissue - Regulation of membrane permeability to water in frog bladder.*

› **Seminars:** *White vs brown adipose tissue - Mitochondrial respiratory chain - Hypothalamic-pituitary axis - Osmotic pressure - Animal models and lab technics.*

SKILLS

Cell Culture

Culture of human adipocytes (hMADS), Primary culture of mouse adipocyte precursor cells, HEK293 cells, Human monocytic cells lines (Thp1, RAW 2647), Human liver cancer cell line (HEPG2), Human pancreatic cancer cells lines (Bxpc-3, Panc1), Human colorectal adenocarcinoma cell line (HT29).

Cellular biology

siRNA transfection (microporation, RNAimax), Plasmid transfection (Lipofectamine, Calcium phosphate transfection), Adenoviral infection, Pharmacological treatments, Subcellular fractionation, MTT cell viability assay.

Molecular biology

Mitochondrial DNA content, Cloning, Gel shift, RNA extraction from total or nuclear extract, retrotranscription, quantitative PCR.

Biochemistry

Protein extraction, Western blot, ELISA, Fatty acid analysis by gas chromatography-mass spectrometry, Lipid peroxide content (TBARS).

Imaging

Immunofluorescent labelling, FISH, 3D reconstruction (Confocal microscopy, Zeiss LSM780).

Protein-protein interaction

Immunoprecipitation, Proximity ligation assays (Confocal microscopy, Zeiss LSM780), Surface plasmon resonance technique (SPR, Biacore).

Animal experimentation

Intraperitoneal injections, glucose and insulin tolerance tests, Dissection.

Software

Zen Black and Blue, Image J, Graph pad Prism 9.0, ViiA7 software, ImageLab, Endnote, Microsoft Office, Notion in omics data analysis (DNA microarray, ChIP-Seq, Mass spectrometry, EnrichR).

Management/ Personal skills

Followed courses on management, team work, student management (Bachelor's and Master degrees)
Oral presentations of data (internal seminar)
Writing of scientific articles and reviews in English (see Publications section)

PUBLICATIONS

E. Recazens*, J. Dufau*, A. Mairal, E. Mouisel, T. Wang, M. Siklova, N. Mejhert, G. Tavernier, J. S. Iacovoni, K. Chaoui, O. Schiltz, MA. Marques, PD. Denechaud, C. Moro, M. Harms, EZ. Amri, C. Postic, L. Rossmeislova, M. Ryden, C. Wolfrum, D. Langin. *Nuclear hormone-sensitive lipase connects TGFβ to mitochondria in adipocyte*. **(under review at Nature)**

E. Recazens, G. Tavernier, J. Dufau, C. Bergoglio, F. Benhamed, S. Cassant-Sourdy, MA. Marques, S. Caspar-Bauguil, (...) C. Postic, E. Mouisel, D. Langin. *The carbohydrate response element binding protein isoform, ChREBPb, is dispensable for the control of glucose homeostasis and energy balance*. **(accepted at Journal of Clinical Investigation Insight)**

E. Recazens, E. Mouisel, D. Langin. *Hormone-sensitive lipase: sixty years later*. **Progress in Lipid Research. 82:101084, 2021.**

P. Morigny, M. Houssier, A. Mairal, C. Ghilain, E. Mouisel, F. Benhamed, B. Masri, **E. Recazens**, (...) S. Hallén, A. Vidal-Puig, H. Vidal, C. Postic, D. Langin. *Interaction between Hormone-Sensitive Lipase and ChREBP in Fat Cells Controls Insulin Sensitivity*. **Nature Metabolism. 1(1):133-146, 2019.**

T. Lallemand, M. Rouahi, A. Swiader, MH. Grazide, N. Geoffre, P. Alayrac, **E. Recazens**, A. Coste, R. Salvayre, A. Nègre-Salvayre, N. Augé. *nSMase 2 Deficiency or Inhibition y GW4869 reduces inflammation and atherosclerosis in Apo-/- mice*. **Arterioscler Thromb Vasc Biol. 38(7):1479, 2018.**

AWARDS

2017 **Doctoral grant from Ministry of Research.**
Highly selective ministerial French grant for a 3-year PhD.

2020 **Grant : 4th year of the thesis - Medical Research Foundation (FRM)**
« Research hopes ». Highly selective French grant for PhD.

REFERENCES

Prof. Dominique Langin : dominique.langin@inserm.fr
Dr. Catherine Postic : catherine.postic@inserm.fr
Dr. Etienne Mouisel : etienne.mouisel@inserm.fr