



EUTRAIN meeting

Emily Triffaux ,ESR1, Eutrain Project
Coffer Lab

Personal background

Emily Triffaux

E.M.M.Triffaux@umcutrecht.nl



Expertise:

2003 – 2007

Bachelor in Biology

Université Libre de Bruxelles (ULB)
Brussels, Belgium

2007 – 2009

Master in Biochemistry, Cellular and Molecular Biology

Université Libre de Bruxelles (ULB)
Brussels, Belgium

2009 – 2010

Internship: Study of CD36 Expression on Monocytes after TNFalpha Treatment

Institut National de la Sante et de la Recherche Medicale
Davignon's lab (INSERM, U1043)
Toulouse, France

2011 – 2013

PhD: Expression of Functional CaV1 Channels in Human TH2 Lymphocytes

Institut National de la Sante et de la Recherche Medicale
Pelletier's lab (INSERM, U1043)
Toulouse, France

2013 – Present

EUTRAIN postdoc: Study of Foxp3 regulation and T reg function

Cell Growth & Differentiation Lab
Utrecht Medical Center, Utrecht, The Netherlands



Project outline:

- Our lab has previously shown that the Treg-specific transcription factor Foxp3 could be subjected to post-transcriptional regulation through both post-translational modifications such as acetylation and as well as association with transcriptional co-factors.

van Loosdregt et al, 2010. Blood 115:965; van Loosdregt et al, 2013a. Immunity 39:259; van Loosdregt et al, 2013b. Immunity 39: 298

- Over the next three years I aim to expand on these the previous findings and identify additional molecular mechanisms regulating Foxp3 transcriptional activity, and define the role of the extracellular environment in influencing this regulation. A part of this project will be done in collaboration with Alessandra Petrelli *ESR2* in the aim to understand the mechanisms inducing resistance of Teff to T reg suppression in chronic inflammatory diseases. The goal of this fundamental research is to identify novel therapeutic targets for modulating immune tolerance.



Planning for 2013-2014

Experimental Goals:

I will optimize systems to transduce human and mouse Treg cells with relevant molecular candidates and will study their effects on Treg/Foxp3 regulation utilizing:

- Western blot
- qRT-PCR
- FACS analysis
- IL-2 luciferase assay
- *in vivo* mouse models e.g. colitis

Educational Goals:

I hope will present my results during local progress reports at the UMCU, national forums including the Dutch Society for Immunology, and international meetings to develop (inter)national collaborations.

I also wish develop my career through interaction with the medical and pharmaceutical community by participating to the EUREKA meeting and by spending some time in different EUTRAIN institute to learn specific techniques that I could use in my project.

