*UCL

ESR9 – UCL Institute of Child Health

London, UK

Chantal Duurland, MSc

EUTRAIN MEETING 23 September 2013 Utrecht, NL



ESR9 – Chantal Duurland



Education

- 2007-2010 → Bachelor Biomedical Science, University Utrecht, NL
- 2010-2012 → Master Infection & Immunity, University Utrecht, NL
- 2013-now → PhD student and Marie Curie Fellow, University College London, UK

Internships

- 9 months: Role of PD-1 pathway in immune regulation in JIA
 Resistance of effector T cells to suppression by Treg (Wehrens et al., Blood, 2011)
 - Department of Pediatric Immunology, Wilhelmina Children's Hospital, UMCU, NL
 - Head of group: Prof. B.J. Prakken
 Supervisor: Dr. E.J. Wehrens
- 8 months: Identifying antigen(s) for CD8αα TCRαβ intra-epithelial lymphocytes
 - La Jolla Institute for Allergy and Immunology, San Diego, USA
 - Head of group: Dr. H. Cheroutre
 Supervisor: Dr. F. Lambolez

Thesis

- Bachelor: PD-1:PD-L pathway in diabetes and allergic asthma
 - Department of Pediatric Immunology, Wilhelmina Children's Hospital, UMCU, NL
 - Head of group: Prof. Dr. B.J. Prakken
 Supervisor: Dr. S. de Roock
- Master: Serotype-dependent interactions between Streptococcus pneumoniae and the host during colonization and disease
 - · Department of Pediatric Immunology and Infectious Diseases, UMCU, NL
 - Head of group: Prof. E.A.M. Sanders Supervisor: Dr. K. Trzçinski

Project overview



Main Question: Are some regulatory T cells involved in making autoimmune diseases worse?

Focus: CD161+ Treg

- Suppressive in vitro yet pro-inflammatory (Pesenacker et al., Blood, 2013)
- CD161+ Treg are highly enriched within the SF of JIA patients

Q1: Do CD161 Treg have a 'typical' Treg signature?

- •Further characterization of CD161+ Treg protein signature
- •Transcriptional differences between CD161+ and CD161-

Q2: Which signals direct the cytokine production by CD161+ Treg?

Q3: What is the function of CD161 expressing Treg in health and disease (JIA)

.....Alignment with EUTRAIN

Collaborations Training

Translational

Planning next year – training



- BSI Summer school 2013 in Newcastle, UK
- University College London (UCL)
 - Bioinformatics course
 - Statistics course
 - Personal development courses
- Analysis and interpretation of RNA sequencing data
- EUREKA 2014
- My hopes for a secondment:
 - Signalling?
 - Q2: Which signals direct the cytokine production by CD161+ Treg
 - Functional assays?
 - Q3: What is the function of CD161 expressing Treg in health and disease (JIA)