**Enlightten**

Dear ENLIGHT-TEN beneficiaries, partners and friends,

Do you know that ENLIGHT-TEN has quite a few things in common with football? Find out what these are by having a look at the ENLIGHT-TEN brochure targeted to laymen on page 6 of this newsletter. But most importantly, I would like to use this newsletter to introduce you to the 13 PhD students ENLIGHT-TEN has recruited. Have a look at their profile to get an idea of their scientific background and project but also to learn about their mobility experiences.

Yours, Jochen Hühn ENLIGHT-TEN coordinator
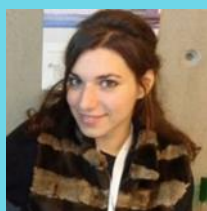
Anna Ntalli

(ESR1)

HZI - Helmholtz Centre for Infection Research Germany

Where did you receive your master degree?
School of Pharmacy, Aristotle University of Thessaloniki

What was the title of your master thesis?
Construction of a recombined herpes simplex virus type I (HSV-1), by substitution of UL44 HSV-1 gene with a reporter gene

What is the key objective of your PhD project?
To identify and functionally characterize uniquely differentially methylated regions (DMRs) in murine and human helper T cell subsets

What do you like best about your new location?
German people always welcome you with a smile, which reflects their advanced quality of culture and life

What do you still need to get used to?
Adaptation to a non-Mediterranean climate is always a striking issue, especially when hail, sun and rain make their appearance during the very same day.

Luís Almeida

(ESR2)

HZI - Helmholtz Centre for Infection Research Germany

Where did you receive your master degree?
Faculty of Science and Instituto de Medicina Molecular – University of Lisbon

What was the title of your master thesis?
The role of neurotrophic factor receptors in Innate Lymphoid Cell immunity

What is the key objective of your PhD project?
To study the role of metabolic pathways in T cell activation and differentiation

What do you like best about your new location?
Hannover is very green and the public transportation system is great. It is very easy to get around without a car, both within the city and within the country.

What do you still need to get used to?
The fact that mostly everything is closed on Sundays and that everything closes earlier in general. The days begin and end earlier than what I was used to. I also miss Portuguese food and coffee.

Natalie Edner

(ESR 3)

University College London
UK

Where did you receive your master degree?
Wageningen University, Netherlands

What was the title of your master thesis?
Isolation, Characterization and Recombination of Enterobacteria Phages

What is the key objective of your PhD project?
Determining the influence of CD28 and its ligands CD86 and CD80 on Tfh differentiation

What do you like best about your new location?
London is very diverse and has a lot to offer. I previously lived in a very small city, so this is a nice change. I also enjoy that London is a very green city with a lot of parks, which I did not expect when I first came here.

What do you still need to get used to?
I am used to getting everywhere very fast by bike so it takes some getting used to having to rely on public transport and not be as flexible.

Isabel Bernal Ugando (ESR 4)

Medical University Vienna

Austria

Where did you receive your master degree?
Otto von Guericke University, Magdeburg, Germany

What was the title of your master thesis?
The role of atypical inhibitory kappaB protein IkappaBNS in influenza-specific T effector cells

What is the key objective of your PhD project?
Transcriptional networks regulating helper and cytotoxic T cell lineage specification: identification of MAZR/Patz1 target genes during T cell development

What do you like best about your new location?
Austrian mentality and the great city of Vienna

What do you still need to get used to?
The heavy traffic. I am still waiting to muster my courage to go by bicycle.

Nigatu Ayele Adossa (ESR 5)

Qiagen Aarhus A/S

Denmark

Where did you receive your master degree?
University of Tampere, Finland

What was the title of your master thesis?
Computational functional prediction of novel long noncoding RNA in TCGA glioblastoma multiform samples

What is the key objective of your PhD project?
Developing novel bioinformatics tool that can be used in identifying gene regulatory sites and characterizing helper T-cell related molecular signature by integrating multiple single cell omics data

What do you like best about your new location?
As I did not start my work at Aarhus due to delay in visa application process, I cannot answer this question fully. But I have seen the beauty of the city and friendly working environment during my site visit.

What do you still need to get used to?
I cannot also answer this question fully as I did not start my work at Aarhus.

J. Miguel Tenorio Pedraza (ESR 6)

Bayer Pharma AG

Germany

Where did you receive your master degree?
Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Mexico

What was the title of your master thesis?
Identification of atypical cytokine patterns in patients with Amyotrophic Lateral Sclerosis

What is the key objective of your PhD project?
To develop a model that incorporates the translatability of cytokine responses from animal models to human subjects in order to allow the safe and quick identification of maximum tolerated doses in clinical phase I studies.

What do you like best about your new location?
I did not start my work due to delay in visa application process.

What do you still need to get used to?
I did not start my work due to delay in visa application process.

Tomás Gomes

(ESR 7)

Wellcome Trust Sanger Institute

UK

Where did you receive your master degree?
Faculty of Science of the University of Lisbon

What was the title of your master thesis?
Genome-wide profiling of RNA polymerase II and associated co-transcriptional processes using advanced NET-seq data

What is the key objective of your PhD project?
The main goal of my PhD project is to define the key moments to T-helper cell identity definition after Naive cell activation. It is possible to use single-cell RNA-seq data to describe gene expression variation profiles with high temporal resolution. The knowledge obtained can then be crossed with other published datasets to pinpoint the time when gene expression starts to point to a certain cell fate.

What do you like best about your new location?
Cambridge is a small yet lively city in the English countryside. I especially like the blend between the rural, quiet aspect of its location, and the bustling academic environment that surrounds it.

What do you still need to get used to?
I like the aspects above, but it also took some time to get used to them, especially having lived by the sea for so long before moving to the UK.

Yumie Tokunaga

(ESR 8)

iMM, Institute of Molecular Medicine

Portugal

Where did you receive your master degree?
Kyushu University, Fukuoka, Japan

What was the title of your master thesis?
Activation of the natural immune system factors in the rag1 deficient zebrafish

What is the key objective of your PhD project?
Regulatory T cell development and homeostasis in human thymus

What do you like best about your new location?
Blue sky and a lot of sweets

What do you still need to get used to?
The greeting style (cheek kissing) is a quite new costume for me. It needs more time to get used to do it.

Saumya Kumar

(ESR 9)

iMM, Institute of Molecular Medicine

Portugal

Where did you receive your master degree?
University of York, UK

What was the title of your master thesis?
Automatic molecular docking of the DUD benchmark using AutoDock Vina

What is the key objective of your PhD project?
Transcriptional profile of T follicular helper (Tfh) cells induced by type 1 and type 2 adjuvants

What do you like best about your new location?
The long sunny days, everyday; friendly people even when just walking on the streets.

What do you still need to get used to?
Portuguese language....but learning a new language is good fun.

Alyssa Silva Cayetano
(ESR 10)

Babraham Institute
UK

Where did you receive your master degree?
I completed my Honours research year at the Australian National University, Canberra

What was the title of your master thesis?
Investigating the physiological consequences of two rare point mutations in OTUD7B and their contribution to Systemic Lupus Erythematosus

What is the key objective of your PhD project?
My project ultimately aims to use a combination of in vivo and in silico work to better understand how aging affects the germinal center response in order to gain insights into improving vaccination efficacy in older individuals.

What do you like best about your new location?
Cambridge is such a charming town. I really like the picturesque colleges full of history and quirky traditions. Most of them are even older than my hometown!

What do you still need to get used to?
I definitely still need to get used to the English weather!

Marisa Stebegg
(ESR 11)

Babraham Institute
UK

Where did you receive your master degree?
University of Vienna

What was the title of your master thesis?
The interferon response of intestinal epithelial cells is affected by aryl hydrocarbon receptor deficiency as well as ageing

What is the key objective of your PhD project?
Defining the role of environmental factors in Th17 differentiation

What do you like best about your new location?
The vibrant, international student life in Cambridge combined with the peaceful gardens in my college

What do you still need to get used to?
Left-hand traffic and all the weird measuring units the British insist to use

Thomas Faux
(ESR 12)

University of Turku
Finland

Where did you receive your master degree?
University of Bordeaux

What was the title of your master thesis?
Structural analysis of proteins short fragments to improve conformational sampling methods

What is the key objective of your PhD project?
My work is motivated by the recent breakthroughs in T cell immunology, and the large dataset that it will produce. Novel data-driven computational tools for analysing high-dimensional molecular data will inevitably be needed to transform the large-scale measurement data into understanding about T cells and related signatures due to the amount of data that sequencing studies are able to produce. Novel experimentally testable computational predictions and hypotheses about T cell- related signatures in health and disease will help understand diseases by looking at, for instance, the presence of transcriptions factors or histone modifications

What do you like best about your new location?
The people of Finland are extremely nice and easy to communicate with since most of the people know how to speak English

What do you still need to get used to?
I still have to get used to the food.

Martina Lubrano di Ricco
(ESR 13)
INSERM
France

Where did you receive your master degree?
Universita' Vita-Salute San Raffaele Milano

What was the title of your master thesis?
Effects of dietary starch on systemic autoimmunity

What is the key objective of your PhD project?
The main goal of my PhD project is to study the role of some receptors of the TNF superfamily (TNFRSF) in the biology of regulatory T cells (Treg). First I will analyse their impact on Treg proliferation, expansion, survival and function.Then, I will study signal transduction and molecular signature induced by their activation. This will provide knowledge on signaling pathways that are shared by different TNFR family members and that are specific to some of these molecules. It may reveal connections between a given biological effect and a specific signaling pathway or a molecular signature. Further work will be to analyze target genes of these transcription factors and to analyse the impact of knocking-down these factors on Treg biology with a possible therapeutic application in autoimmune diseases.

What do you like best about your new location?
I am really happy to have the chance to do my PhD abroad because I love travelling, meeting people and knowing new cultures. In particular, I believe Paris is an amazing city for several reasons. First, the buildings and streets are very impressive and beautiful. Each neighborhood is different for the others and has characteristic features and this allows you to try different places and atmospheres based on what you are looking for (romantic date, cultural visit or a night out with friends). Second, it is full of museums, galleries and events. It offers activities for each kind of person in the field of sport, culture, fashion, food or nature. You cannot be bored! And third, there are some personal reasons why I like Paris namely because it is close to Italy that allows me to come back home frequently and also because French lifestyle, culture and habits are really similar to Italian ones and this makes me feel home.

What do you still need to get used to?
One thing that I did not expect is that almost no one speaks English especially in the everyday life but also in the university. On one hand this surprised me and discouraged me because when I moved here I was not able to speak French. But then I decided to take this as a challenge and I started to learn French. Another thing that I am still not used to is the cold weather! There is a lot of wind and rain and the weather changes really quickly but I guess it is because in Italy we are used to a warmer climate! And finally it is impossible to eat a good pizza or pasta, but this is everywhere outside Italy! I have to admit the food is not bad at all here!

Find out 3 things the EU project ENLIGH-TEN has in common with football

1 The logo

The logo of ENLIGHT-TEN was created by a designer who developed the logo for the EURO 2014.

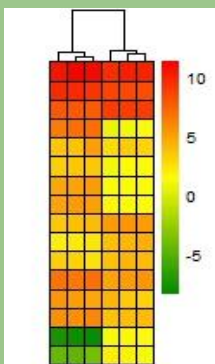## 2 Transfer activities

Visualisation of relocation of ENLIGHT-TEN PhD students

All PhD students of ENLIGH-TEN moved to new country.

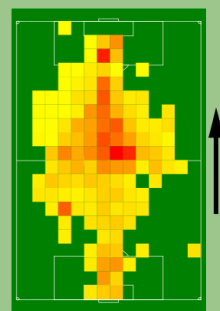Number of transfers (player signing 2012/2013) according to data for from Prime Time Sport

3 Large Datasets

Heat map of differential expression

For heat maps in football large data sets on the frequency of events in a given area are created and analysed. The ENLIGHT-TEN projects combines the power of large data sets, so called "Big Data Analysis" and the under-

Heat map of ball possession
Picture by Karsten Adam (GNU FDL)

standing of an important part of the human immune system, the T cells. Understanding and manipulating T cells offers the opportunity to treat a wide-range of immune mediated pathologies such as type 1 diabetes, multiple sclerosis and allergies.

Find out more at www.enlight-ten.eu