



**15 PhD positions in a multidisciplinary research training program
to uncover cellular control of immuno-metabolism and prostate cancer progression**

15 PhD positions are offered to undertake research training at the interface of several disciplines and sectors within the European Marie Skłodowska-Curie Innovative Training Network (ITN) “Tribbles Research and Innovation Network” ([TRAIN](#)), which is composed of 10 industrial and academic institutions from the United Kingdom, Spain, Germany, France, The Netherlands, Portugal and Hungary.

This is an excellent opportunity to join a strong international scientific network that provides the opportunity to qualify for a PhD, benefitting from the enhanced parallel training opportunities of the [Marie Skłodowska-Curie ITN programme](#) and networking with other PhD students in the cohort.

Context: Dysregulation of common molecular pathways that govern the physiological functioning of adipocytes, immune cells and prostate epithelial cells have been reported in immune-metabolic disease, such as obesity, and several cancers. Our overall objective is to uncover cell-specific aspects of these pathways, focusing on tribbles (TRIB) proteins, a recently described family of pseudokinases, that have a key role in controlling immunity, energy homeostasis and cancer development, and which here will serve as prototypical examples for integrative immune-metabolomic cancer research. This multidisciplinary research-training programme will uncover cell-specific aspects of TRIB-mediated control of immuno-metabolism and their impact on PCa progression. We will approach this by integrating cell biology and sophisticated *in vivo* models of both immuno-metabolic disease and PCa, complemented by specialist human disease biobank materials, cutting-edge genomics approaches, plus a drug discovery pipeline. This will be carried out by an alliance of leading academic research groups and specialist SMEs with complementary backgrounds in inflammation, adipose tissue (AT) biology, tumourigenesis, genomics, translational models of human disease, medicinal chemistry and drug discovery.

Within his/her respective project, each PhD student will participate in at least one international/trans-sectorial exchange of 4-6 months in another partner’s laboratory. In addition, a number of 4-6 days training events will be hosted and delivered by the partner institutions during the 3 years. A mobility allowance will be granted to cover the expenses caused by the mobility.

European H2020 funding mobility rules apply, notably applicants must not have spent more than 12 months in the country of the host institution within the 3 years immediately prior to their recruitment.

Brief details of each project are shown below: full details of each position can be found on the [TRAIN website](#)

To apply, applicants must:

- have a Master’s degree (or equivalent) with outstanding performance
- not have spent more than 4 years undergoing full time research at the time of their recruitment
- have excellent English skills
- send a detailed Curriculum Vitae
- send a personal statement describing interests, confirming readiness to move to the host institution and awareness of mobility opportunities within this 3-year PhD program
- provide two academic references
- indicate which project(s) they are applying for and indicate preference order if several choices

Applications should be sent in a single pdf file to graham.hughes@sheffield.ac.uk for an initial eligibility check prior to forwarding to the institution(s) of choice. Unfortunately, due to the anticipated volume of applications only shortlisted applicants will be contacted.

Start date: February/March 2017 (flexible).

Be aware these positions will only remain open until a suitable candidate is identified therefore early application is highly recommended.





Project	Host Institution	Supervisor
1- Trib1/3 Regulation of adipocyte-iNKT-Treg axis	Molecular Cancer Research and Center for Molecular Medicine of the University Medical Center Utrecht (Utrecht, NL)	Dr Eric Kalkhoven
2- Trib1-mediated control of Treg function and its role in maintaining adipose tissue health	Center for Research in Transplantation and Immunology ITUN-INSERM1064 (Nantes, FR)	Dr Sophie Brouard/ Dr Richard Danger
3- Trib3-mediated control of macrophage phenotype and impact on Adipose Tissue inflammation	Department of Infection, Immunity & Cardiovascular Disease, The University of Sheffield (Sheffield, UK)	Dr Heather Wilson
4- Nuclear TRIB1/3 in adipocytes and macrophages and their functions	Molecular Cancer Research and Center for Molecular Medicine of the University Medical Center Utrecht (Utrecht, NL)	Prof Boudewijn Burgering
5- Trib-dependent reprogramming of adipocytes and its implications for immuno-metabolic conditions	Institute for Diabetes and Cancer (IDC), Helmholtz Zentrum Muenchen (Munich, DE)	Prof Stephan Herzig
6- Contribution of prostate-specific TRIB1 expression to prostate cancer pathogenesis, metabolism and remodeling of the microenvironment.	CIC bioGUNE (Center for Cooperative Research in Biosciences) (Bilbao, ES)	Dr Arkaitz Carracedo
7- Remote and local control of tumour microenvironment & metabolism through adipocyte Trib-expression.	Institute for Diabetes and Cancer (IDC), Helmholtz Zentrum Muenchen (Munich, DE)	Dr M. B Diaz
8- Define prostate-specific cellular mechanism of TRIB3's tumour suppressor actions	El Instituto de Investigación Sanitaria del Hospital Clínico San Carlos – Universidad Complutense de Madrid (IdISSC-UCM) (Madrid, ES)	Dr Guillermo Velasco
9- TRIB-mediated regulation of metabolism in prostate epithelium, and cancer lesions	Endocrinology and Reproduction Subgroup, Health Sciences Research Centre, University of Beira Interior (Covilhã, PT)	Dr Silvia Socorro
10- Transcriptome & Pathway Analyses of Trib1- and 3- Mouse Models of Immuno-Metabolic Disease	SeqOmics Biotechnology Ltd. (Szeged, HU)	Dr Istvan Nagy
11- Cell-specific TRIB1 transcription in human and mouse AT-resident cells	Queen Mary University of London (London, UK)	Dr Lou Metherell
12- Regulation of Trib and identification of transcription factors targeted by Trib1/3	Queen Mary University of London (London, UK)	Prof Carol Shoulders
13 - Regulating TRIB1 and TRIB3 Activity by miRNAs in macrophages	Department of Infection, Immunity & Cardiovascular Disease, The University of Sheffield (Sheffield, UK)	Dr Endre Kiss-Toth
14- TRIB3-mediated regulation of the invasiveness of cancer cells and of its interplay with the tumor microenvironment: consequences on tumor susceptibility, progression and metastatic capacity	El Instituto de Investigación Sanitaria del Hospital Clínico San Carlos – Universidad Complutense de Madrid (IdISSC-UCM) (Madrid, ES)	Dr Sonia Castillo
15- In silico design of targeted chemical libraries to regulate Tribbles action	Intelligent Pharma (Barcelona, ES)	Dr Oscar Villacanas

