

INFLANET project

INFLANET addresses the challenges of alleviating the societal burden of inflammation, not only for acute inflammatory disease, but also for multiple chronic diseases where inflammation is a major contributing factor. In Europe, direct healthcare costs incurred by such patients can be of several billion € per year. Chronic inflammation also plays significant roles in other diseases and conditions that lead to chronic pain, poor sleep quality, obesity, physical impairment, and overall decreased quality of life.

It is critical that Europe trains its own scientists to meet these challenges. The aim of this ETN is to provide the recruited early stage researchers (ESRs) with the best possible international, interdisciplinary and inter-sectorial training. We shall accomplish this through both research and dedicated central training events to generate future European experts in the field of inflammation, both in academia and in companies. The ESRs will be able to identify the key challenges for research, model complex systems, identify new anti-inflammatory drugs and their targets, and communicate the results to a wide audience. These, entrepreneurial and innovative ESRs will be trained through both research projects and personalized training in transferable and soft skills.

Beneficiaries



UNIVERSITÉ
DE MONTPELLIER



Universiteit
Leiden
The Netherlands



Institut Pasteur



SLOVENSKÁ
TECHNICKÁ
UNIVERZITA
V BRATISLAVE



TATRAMED
ACQUIFER

Partner Organisations



Diagnosticum Zrt.



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

More Information

www.inflanet.eu

inflanet@inflanet.eu

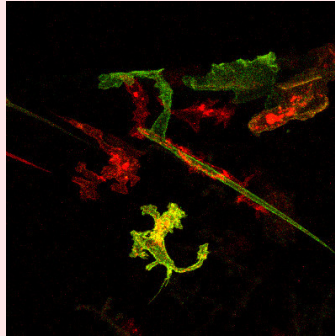
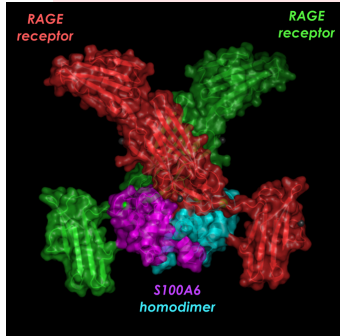
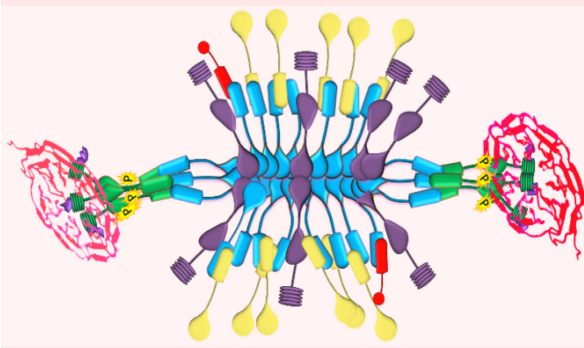


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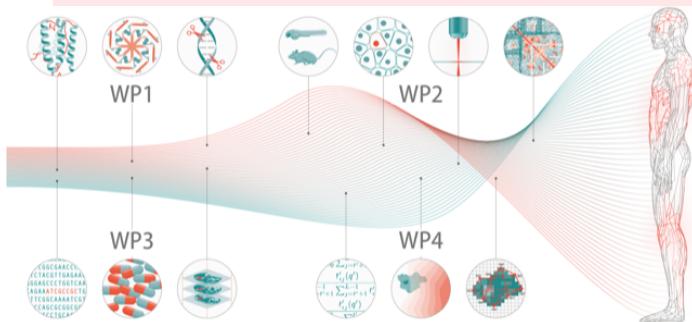
Training European Experts in Inflammation: from the molecular players to animal models and the bedside

TRAINING
NETWORK
INFLANET
H2020



Training challenges and objectives

ESRs will receive day-to-day specialised interdisciplinary training in their host and secondment laboratories. For ESRs to be prepared to develop innovative therapeutic approaches, the INFLANET central training will include mandatory training courses on all aspects of inflammation, from bedside to translational strategies through imaging and genomics. This combination should prepare them for a wide range of careers in the biomedical and clinical sciences.



Research challenges and objectives and related ESR projects

Endogenous inflammatory signals: detection, integration, propagation and control:

ESR2: Structure-function relationships of extracellular S100 proteins, mediators of inflammation in human diseases

ESR11: Inflammasome components diffusion in whole organisms: from local to systemic inflammation

ESR15: High content pharmacological screening in vivo using the zebrafish.

Intravital imaging of inflammatory processes:

ESR1: Molecular basis of macrophage polarization in vivo during inflammatory episodes

ESR3: Regulation of infection-induced inflammation interplay between autophagy and inflammasome pathways

ESR4: Illuminating antiviral inflammation and neuroinflammation

ESR7: Mechanisms of neutrophil swarm initiation and resolution and consequences in inflammatory disease

ESR8: Urokinase pathway and extra-Cellular Matrix remodelling in experimental models of inflammation

ESR9: Inflammation and chronic fibrosis

ESR10: Stromal responses to cancer

Genomic and transcriptomic approaches to understand human inflammatory disorders and inform therapeutic strategies:

ESR12: Mendelian human inflammatory diseases

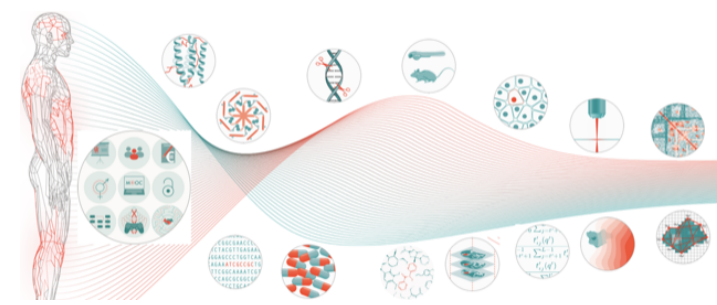
New mathematical tools, computational modelling and simulation:

ESR5: Mathematical image processing and analysis

ESR6: Computer simulations of spatio-temporal processes during inflammation

ESR13: Efficient software solutions for image processing and quantification in nuclear medicine

ESR14: Design and implementation of workflow tools for multiplexed time-lapse imaging experiments in screening



What the project will bring

Given the vast number of pathological conditions in which inflammation plays a dominant role, no single laboratory can explore all of its aspects in depth. Therefore, our consortium of leading European laboratories will:

- **Implement a training program** to ensure unparalleled access for ESRs to the best that research in this area has to offer for them to stand in good stead to secure leadership positions in research, in academia or in more applied fields throughout the EU.
- **Feed translational efforts**, with the potential of enormous economic impact for the EU.
- **Disseminate the outputs** as widely as possible, targeting both the scientific community at large through classical dissemination means and the widest public through innovative tools including a YouTube Channel, a MOOC, a serious game for Smartphones and a Lego microscope.