

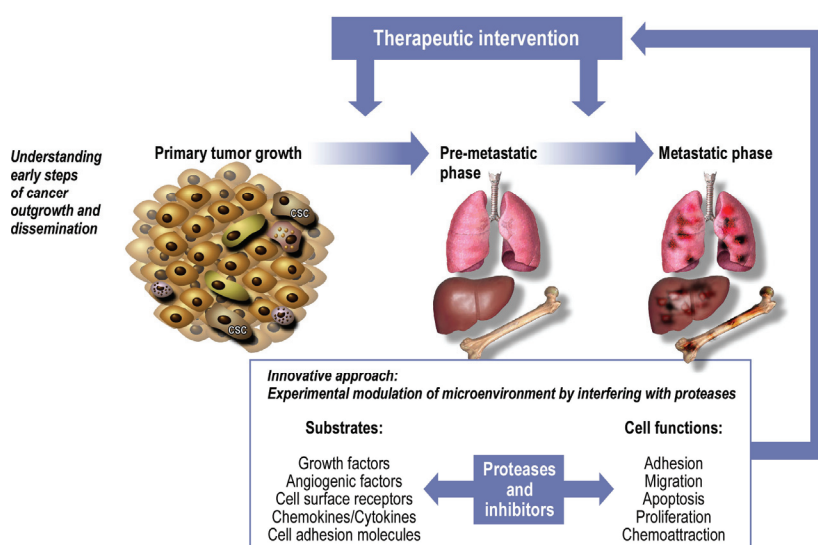
PRESS RELEASE

A new European research network MICROENVIMET: understanding and fighting metastasis by modulating the tumour microenvironment

The aggressive character of a tumour is related to the capacity of the cancer cells to form metastases from a primary tumour. Metastasis is the most serious challenge for cancer treatment. The tumour cells can disseminate into the organism by using the blood or lymphatic stream. Recent data suggest that the site of implantation of secondary foci or metastases is preset by the elaboration of an appropriate microenvironment. These novel information led to the emerging concept of “premetastatic niche”. In addition, cancer cells must acquire new properties ensuring their mobility and the invasion of various tissues. Cancer stem cells are thought to constitute the proliferative potential of the tumoral mass and could represent the source of cells metastasizing. The tumour cell-centered view of the metastatic process is now revisited taking into account the important contribution of the tumor microenvironment consisting of both cellular and non cellular components, in primary tumors as well as in secondary foci.

A new European network, entitled MICROENVIMET, developed within the 7th EU framework is coordinated by Professor A. NOEL (Laboratory of Tumour and the Development Biology, GIGA-Cancer research center of the University of Liege). This European scientific network entitled “Microenvimet: Understanding and fighting metastasis by modulating the tumour microenvironment through interference with the protease network” (<http://www.microenvimet.eu>) gathers 8 international partners. It is funded to the amount of 2.999.689 euro for 4 years by the European commission.

The purpose of the project “microenvimet” is to elucidate and understand the early mechanisms of the metastatic dissemination by studying the contribution of tumour microenvironment during various stages of epithelial cancer evolution: the primary tumour growth, the premetastatic phase preceding the dissemination of the cancer cells and the metastatic phase during which the secondary foci develop. It aims at identifying molecular targets contributing to early steps of the tumour progression. The project is focused on the mechanisms underlying the elaboration of a favorable « soil » for the establishment of metastases (“premetastatic niche”).



Its original approach consists in modifying the tumoral microenvironment, interfering with proteases which constitute important regulators of the interactions which are established between

tumoral cells and their cellular and molecular microenvironnement. This project is based on the exploitation of innovating technological platforms: genomic platform for the analysis of the RNA messengers and the recently identified microRNA, phage library for the development of blocking antibodies against the identified targets, platform of computer-assisted image analysis and transgenesis platform.

Press contact :

- Pr Agnès NOEL, co-director of Laboratory of Tumour and the Development Biology, agnes.noel@ulg.ac.be, MICROENVIMET network coordinator, +32 4.366.25.69
- Dr Olivier Peulen, scientific coordinator of Laboratory of Tumour and the Development Biology, olivier.peulen@ulg.ac.be, MICROENVIMET project manager, +32 4.366.35.70
- Dr Erik Maquoi, FNRS Research Associate in Laboratory of Tumour and the Development Biology, erik.maquoi@ulg.ac.be, MICROENVIMET scientific manager, +32 4.366.25.31

MICROENVIMET partner list:

1. University of Liège, LBTD, GIGA-Cancer, Belgium (Pr. A. Noel, Coordinator)
2. University of Helsinki, Finland (Prof Kari Alitalo & Dr Pirjo Laakanen)
3. University of Torino, Italy (Prof Paolo Comoglio et Prof Carla Boccaccio)
4. Technical University of Munchen, Germany (Prof Achim Krüger)
5. University of Oviedo, Spain (Prof Carlos Lopez-Otín)
6. CNRS – University of Sophia Antipolis, France (Prof Pascal Barbry & Dr Bernard Mari)
7. Freiburg University Hospital, Germany (Prof Thomas Reinheckel)
8. Finsen Laboratory, Danemark (Prof. Gunilla Høyer-Hansen)
9. Jozef Stefan Institute, Slovenia (Prof Boris Turk & Dr Olga Vasiljeva).