



## Controlling Antigen Processing in Autoimmune diseases and Cancer

CAPSTONE-ETN is a multi-disciplinary platform of experts in structural biology, immunology, biochemistry, proteomics, and therapeutics that jointly aim to increase the impact of research into ERAP aminopeptidases in various aspects of human and animal disease and to train the next generation of researchers with full understanding of the requirements of academia, pharmaceutical companies and societal challenges, in the field of cancer and autoinflammatory diseases including rare conditions

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### Beneficiaries

Université de Lille

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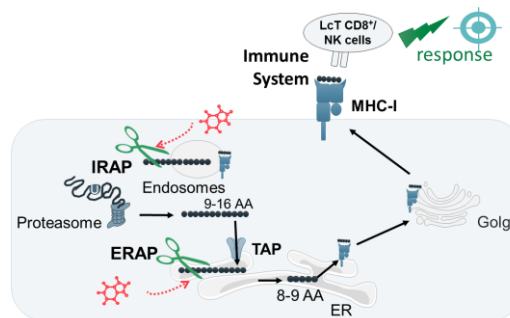
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The OneHealth Company

Helmholtz Zentrum münchen  
German Research Center for Environmental Health

"ALEXANDER FLEMING"  
Biomedical Sciences Research Center

acelopment  
takes you further

### Patient associations



#### WP3 : ERAP/IRAP Functions

- Immuno-peptidome
- X-Ray & molecular dynamics
- Allies & antigen presentation
- Cross presentation
- NK-mediated immune response



#### WP4 : ERAP/IRAP and disease

- In vivo Cancer models
- In vivo NK-immune response
- Metabolomics analysis
- In vivo Autoimmune models



#### WP5: Chemical Probes and leads targeting ERAP/IRAP

- Transition state analogues
- HTS, FBDD
- In situ click
- ADME/PK
- MS-imaging
- Carboxylic acids
- Delivery systems
- Cheminformatics

15 ESR positions