

# How ImmunAID will provide

## Novel diagnostic classification of Systemic Autoinflammatory Disorders (SAID)



### We build a patient cohort



Patients with active SAID are screened by physicians



Samples and clinical data are collected and anonymized



Samples from all over Europe are stored in a biobank and further dispatched to biolabs

### We do biological analyses

#### Exploratory unbiased approach

Exploring at large scale new causes of innate immune dysregulation

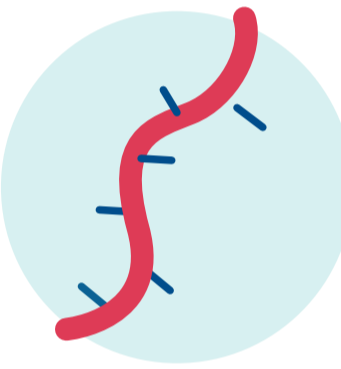
##### DNA

Identify mutated genes...



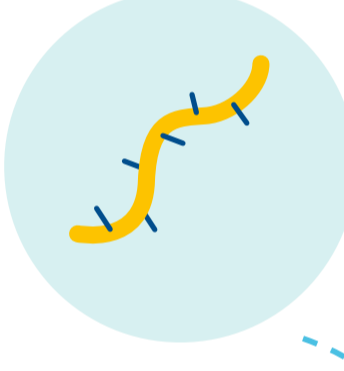
##### RNA

...and the impact on RNA levels



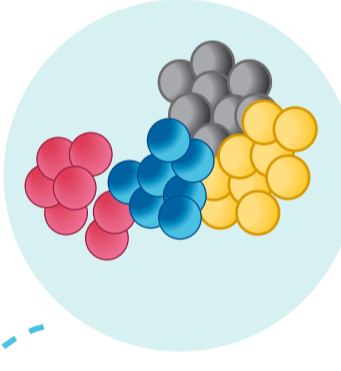
##### miRNA

Map RNAs interfering with protein expression



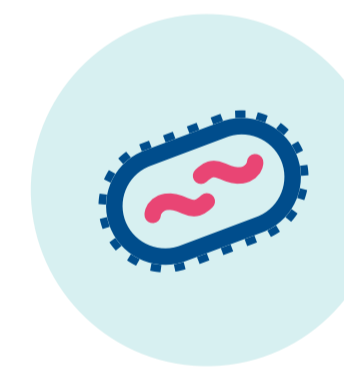
##### Proteins

Identify changes in protein expression and distribution



##### Microbiota

Identify microbiome profiles activating inflammation

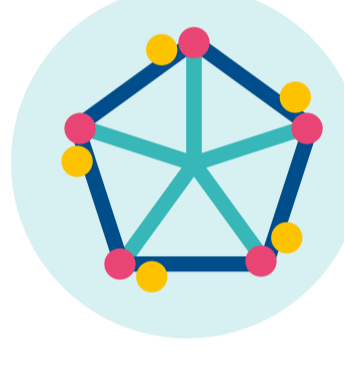


#### Hypothesis-driven approach

Exploring already suspected pathways and effectors underlying inflammation

##### Inflammasome

Inflammation activation: Unravel the dysregulation of inflammasome function



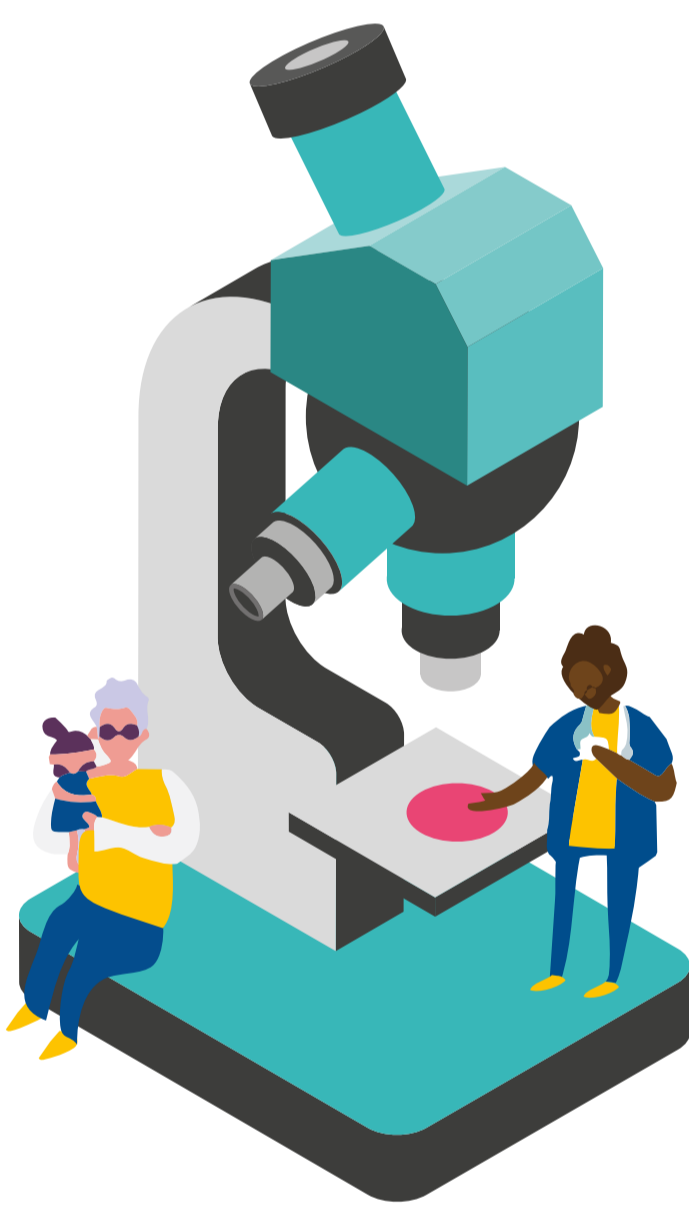
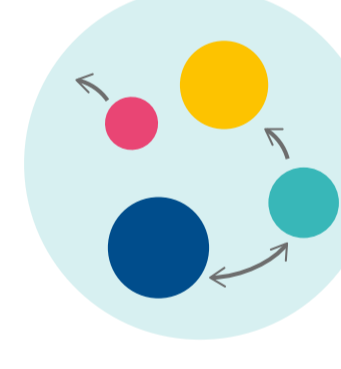
##### Lipid mediators

Inflammation resolution: Explore possible defects of lipid mediators



##### Cytokine, immune cells, etc.

Inflammation regulation: Decipher the role of key immune system effectors



### We do computational analyses



Combine hypothesis-driven and free-data clustering, integration, modeling and validation

### We will improve the diagnosis and medical care of patients

