About Us

We are a European consortium of 18 partners from 13 countries, coordinated by Prof Trine Mogensen at Aarhus University/Denmark. We take advantage of unique patient cohorts from 11 EU countries and state-of-the-art human genetic, immunological, and virological expertise.

A number of our studies are closely aligned with the global COVID Human Genetic Effort. Please also visit our partner consortium.

COVID HUMAN GENETIC EFFORT

Contact Us

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UNDINE.AU.DK

& covidhge.com

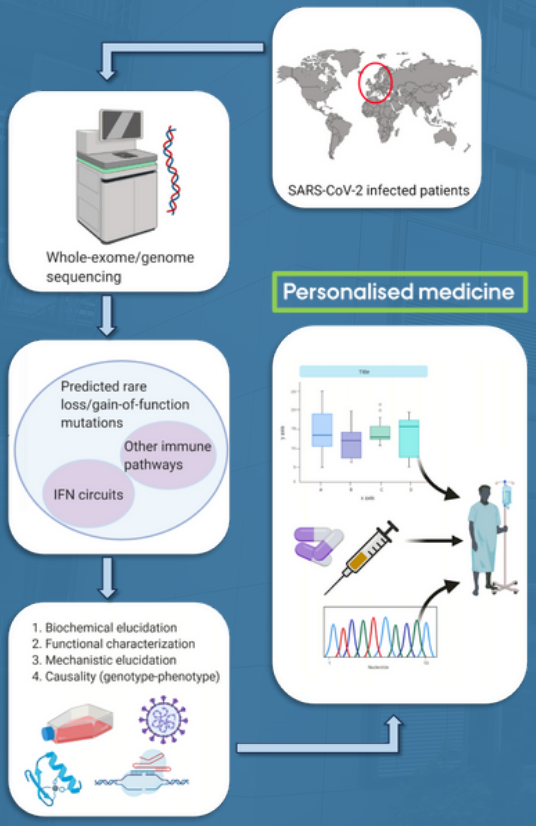
THE HUMAN GENETIC AND IMMUNOLOGICAL DETERMINANTS OF THE CLINICAL MANIFESTATIONS OF SARS-COV-2 INFECTION: TOWARDS PERSONALIZED MEDICINE

Funded by the European Union

UNDINE

Project Background

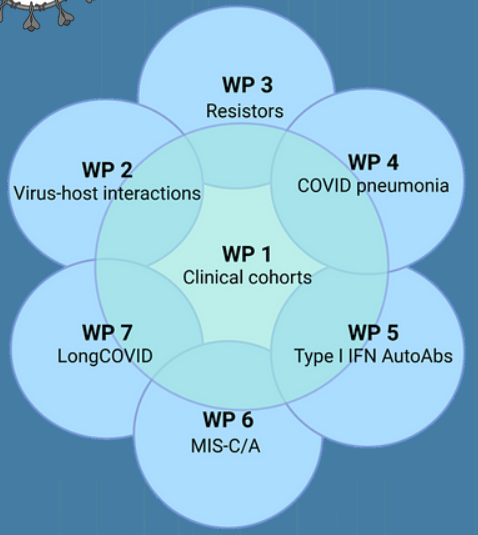
Since the start of the COVID-19 pandemic, more than 750 million people have been infected with SARS-CoV-2, causing more than 6.8 million deaths worldwide. Consequences of an infection vary greatly, ranging from silent infection to lethal disease, with a variety of clinical presentations in between. This inter-individual clinical variability is the key scientific question driving UNDINE.



Approach & Objectives

UNDINE aims to decipher the human genetic and immunological basis of the various disease manifestations of SARS-CoV-2 infections to identify individuals at increased risk of critical COVID-19, post-infectious immunological complications, and vaccine failure. The goal is to provide a base for the development of diagnostic tests and to propose novel preventive and therapeutic approaches.

We conduct studies on human genetics and immunology of SARS-CoV-2 from single cells to the whole organism, building on established clinical cohorts of patients with different disease manifestations and state-of-the-art and innovative genetic, molecular and immunological techniques in seven interrelated work packagaes (WPs):



WP1: Cohorts of SARS-CoV-2-infected subjects

WP2: Cellular models and immune responses to SARS-CoV-2 & variants of concern

WP3: Human genetic resistance to SARS-CoV-2 infection or disease

WP4: Human genetics and immunity of critical COVID-19 pneumonia

WP5: Cytokine autoantibodies in the pathogenesis of COVID-19

WP6: Human genetics and immunology of MIS-C/A and pernio

WP7: Human genetics and immunology of Long-COVID