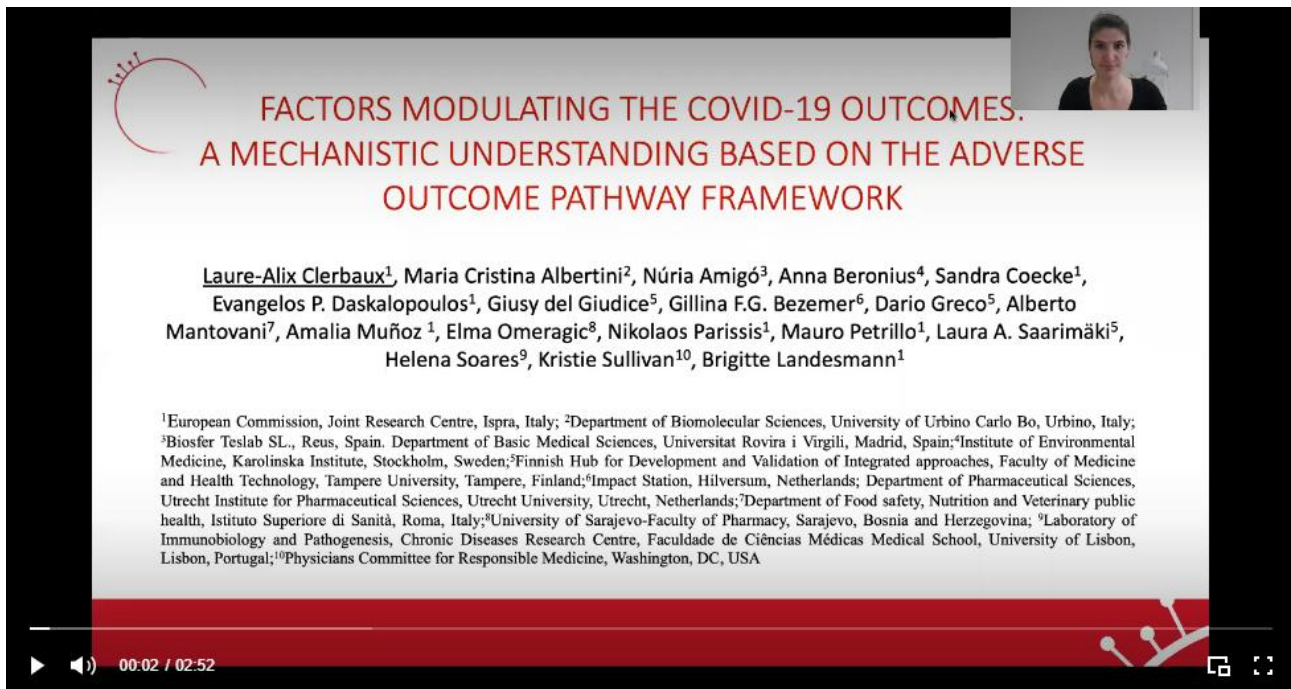


Online Nature conferences

<https://conferences.nature.com/event/1b18665c-e4a6-4fa2-abb7-89143ddabbd9/summary>

"Understanding COVID-19 to prepare for the Next Pandemic". April 5 (from 10:30 to 11:30 EST); 2022.

Title: "Factors modulating the clinical outcomes of COVID-19: a mechanistic understanding based on the AOP". Presented as a [recorded poster](#) by *Laure-Alix Clerbaux*.



**FACTORS MODULATING THE COVID-19 OUTCOMES.
A MECHANISTIC UNDERSTANDING BASED ON THE ADVERSE
OUTCOME PATHWAY FRAMEWORK**

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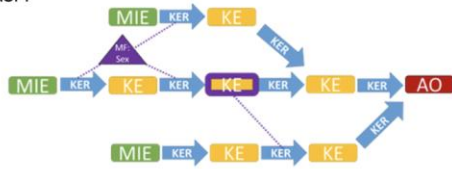
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Factors modulating Covid-19 outcomes represented within an Adverse Outcome Pathway

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An **Adverse Outcome Pathway (AOP)** aims to model the sequence of events starting from an initial interaction of a stressor (the virus) with the organism at the molecular level through key biological events up to an adverse outcome (a disease).

Modulating factors (MFs) are extrinsic or intrinsic variables that influence the response to the perturbation(s) caused by a stressor and represented in the AOP.



Factors modulating the clinical outcomes of COVID-19 investigated in this study, identified based on epidemiological and/or clinical studies.

Intrinsic factors: age, sex, genetic factors;

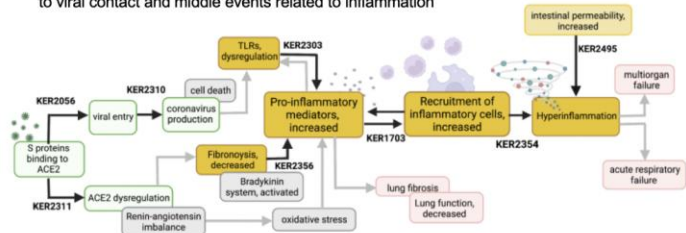
Co-morbidities: history of dyslipidemia, obesity, pre-existing heart failure, gut dysbiosis;

Lifestyle-related: vitamin D deficiency, diet;

Environmental factors: air pollution, exposure to chemicals.

Various linear AOPs depicting the pathway from the binding of the virus to ACE2 up to a clinical outcome observed in COVID-19 patients have been developed and integrated within a network.

We focus on linking MFs to central mechanisms underlying COVID-19, early events related to viral contact and middle events related to inflammation



Interested to know more?
<https://www.ciao-covid.net/>

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