

Showing we still CARE:

How we have moved the world closer to Pandemic Preparedness



C A R E
CORONA ACCELERATED R&D IN EUROPE

CARE (Corona Accelerated R&D in Europe): The largest European research initiative to address the challenges of COVID-19 comprised 38 European research institutions and pharmaceutical companies, plus partners from the USA and China, providing a multi-disciplinary team with proven expertise and capabilities in anti-viral drug development.

Objectives

1

EMERGENCY RESPONSE

The development of therapeutics to provide an emergency response to the COVID-19 pandemic.

2

LONG TERM STRATEGY

The development of therapeutics to address the current and/or future coronavirus outbreaks.

3

INVESTIGATING COVID-19

Increasing understanding of the physiopathology of COVID-19.

Alpha, Beta, Delta, Gamma

Omicron BA

Omicron BQ, XBB

Omicron EG

Omicron JN1

Omicron KP.3, XEC

2020

2021

2022

2023

2024

- Identified CD177 neutrophil activation marker
- Established HTS assay against Wuhan strain, & screening clinically validated compounds
- Identification & validation of first hit series from phenotypic HTS
- Established hACE2-KI, K18 mouse & Syrian Hamster models

- P5C3 antibody discovered
- Structure based drug design of key CoV enzymes for 5 targets
- Non-human primate model, disease fully characterised
- Data management platforms set up to handle clinical, virological, OMICS and laboratory informatics

- P2G3 antibody discovered
- Achieved animal proof of concept for lead small molecule compounds
- Comprehensive study of nirmatrelvir and 13b-K resistance mutations
- Identified core gene signature in COVID-19 convalescents
- Cryo-EM white paper published
- Dissemination support in CARE-4-DATA

- P4J15 antibody discovered
- Identification of M protein as novel target for phenotypic hit series
- Achieved animal proof of concept for two additional small molecule series

- PDCOV antibodies discovered
- First small molecule series licensed to commercial partner
- Discovered Replication Transcription Complex as a novel target for another phenotypic hit series
- Published app detailing human genetic COVID-19 associations mechanisms
- Design & set up of CLEAR Trial in immunocompromised patients not clearing SARS-CoV 2

- Minimal Replication complex (nsp7-8-12)
- Reconstitution for screening with functional and structural characterization
- Evaluated efficacy via 36 experiments on 9 small molecules & 2 antibodies in-vivo
- Set up and maintenance of the Clinical Trial Platform; Conduct of trial network identification survey

Public Deliverables & Resources

15

Deliverables



25

Datasets



43

Publications



... and counting!

Find Resources



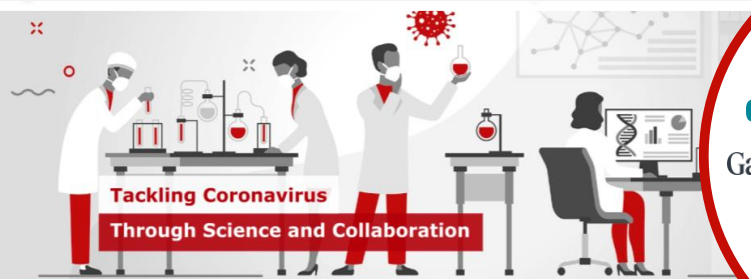
An established **multidisciplinary scientific collaborative network**, which enabled efficient coordination of effort towards a common goal as well as a timely response to emerging health threats

A **solid inventory of novel drug candidates** with different mechanisms of action, addressing different viral targets and with pre-clinical proof of concept that can be brought forward in a future pandemic

New **scientific insights into the biology of the virus**, as well as the identification and validation of multiple novel targets in the virus and the host, thereby **expanding the coronavirus drug research toolbox** which will expedite the development of treatments in future crises

New **non-scientific insights into ethical and legal compliance recommendations and patient preference studies** in the context of COVID-19; plus, project execution learnings to inform future projects

Outcomes



innovative medicines initiative



Gates Foundation

