

# 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

2020

- 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

### Omicron BA

2021

- 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

### Omicron BQ, XBB

2022

- 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

### Omicron EG

2023

- 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

### Omicron JN1

2024

- 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

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- Set up and maintenance of the Clinical Trial Platform; Conduct of trial network identification survey

### Key Achievements

### Public Deliverables & Resources

15 Deliverables

25 Datasets

43 Publications

... and counting!

Find Resources →

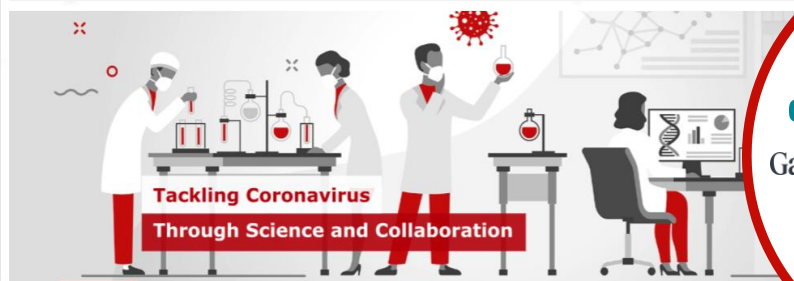
An established **multidisciplinary scientific collaborative network**, which enabled efficient coordination of effort towards a common goal as well as a timely response to emerging health threats

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



**imi** Innovative Medicines Initiative

**efpia**

Gates Foundation

**GHDI**

University of Dundee