






03/2025 | **FINAL** CARE Biannual Newsletter

In this, our final newsletter to CARE friends, we report on the outcomes and legacy of CARE, as articulated during the final in person annual meeting which took place in Paris earlier this month



CARE'S legacy for pandemic preparedness

Through the input from CARE partners, here are the key outcomes that can inform the establishing and running of future pandemic preparedness efforts:

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 • **An established scientific network** which reinforced previous partnerships and established new ones, fostering cross-sector collaboration across researchers, health organisations, and policymakers, which enabled efficient coordination of effort towards a common goal and can ensure a more coordinated and timely response to emerging health threats
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 • A solid **inventory of novel small molecule and antibody 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



How CARE outcomes will be taken forward

The CARE consortium met for its Annual Meeting in Paris on March 5th and 6th for the fifth and final time. It was attended by around 65 people, in the presence of CARE Scientific and Ethics Advisory board (SEAB) and Innovative Health Initiative (IHI) representation.

The event, opened by Yves Lévy, was an opportunity for partners to come together to reflect on the outcomes, learnings and plans beyond CARE.

In the **small molecule** space, optimised lead NSP14 series C will be developed further through the collaboration between the Drug Discovery Unit at the University of Dundee and the Biomedical Research Unit at Novartis, while the NSP12 Nuvisan/Servier series will be taken forward within the PANVIPREP consortium. Other small molecule series remain available for further development, such as Johnson & Johnson's Cluster 613.

In the **antibody** space, team members from CHUV and Utrecht University will stay in contact as they continue to develop and refine both their monoclonal antibodies such as CHUV's ME05, and UU's development of antibodies to target and bind to cell APN receptors, as a potential antiviral approach.

The **system biology** team shared data from their research into determining the functional and genetic profiles of COVID-19 infection and identification of immune biomarkers predictive of virological, clinical outcomes and treatment efficacy; and the **pre-clinical** team presented their achievements through a panel Q&A session, reflecting on the fact that while they didn't quite achieve the predicted number of proof of concept and efficacy experiments (due to lack of repurposing candidates) their legacy includes a comprehensive range of animal models that can be leveraged in the future and WP7 were also recognised for the extensive preparatory work conducted towards running a **CARE clinical trial**.

Among the non-scientific achievements, we also learned about the challenges of **system impact modelling** which promises some useful learnings for future consortia. We were reminded about the findings and available resources produced by the **regulatory and ethics** team, as well as details about the LabKey **data management** system. An overview of the **communications** activities was also shared, with a recent highlight being the CARE White Paper, published in February.



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In case you missed it... CARE Summary Information and Resources

Review some of our recent publications which were shared on [LinkedIn](#)

- **The CARE White Paper:**

our white paper whose narrative highlights CARE's significant achievements against an ever-shifting context, as well as CARE's legacy, having ongoing relevance for moving us closer to pandemic preparedness

- **The CARE Infographic:**

after the eight work-package infographics, look at the final infographic which provides an at-a-glance view of CARE's objectives, achievements, outcomes and available resources

- Please like/repost and/or comment on these posts to help us spread the word

From Crisis to Innovation: How the CARE Consortium has Shaped the Future of Pandemic Response
A CARE White Paper

CARE Executive and Steering Committees
On behalf of Corona Accelerated R&D in Europe (CARE), consortium members reflect on the unique features of this large collaborative research effort that contributed to CARE's progress in finding new therapies against SARS-CoV-2 and potential future coronavirus outbreaks.

Summary
The Corona Accelerated R&D in Europe consortium was formed in April 2020 in response to the urgent need for solutions to combat COVID-19. CARE focused on drug, small molecule drug discovery, and neutralizing antibodies which would current and future coronavirus outbreaks. CARE's progress in finding new therapies against SARS-CoV-2 and potential future coronavirus outbreaks.

Showing we still CARE: How we have moved the world closer to Pandemic Preparedness

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 pathophysiology of COVID-19.

Key Achievements

Year	Alpha, Beta, Delta, Gamma	Omicron BA	Omicron BQ, XBB	Omicron EG	Omicron JN.1	Omicron KP.3, MEC	
2020	<ul style="list-style-type: none"> Identified COVID-19 antibody structure Established HTS assay against Wuhan strain, identifying clinically relevant compounds Identification & validation of first 10 series from phenotypic HTS Established SARS-CoV-2 hit rescue & screen model 	<ul style="list-style-type: none"> PKC1 antibody discovered Structure based drug design of key CCR2 antagonists for SARS-CoV-2 Non-human primate model, efficacy Characterized SARS-CoV-2 resistance mutations CRISPR-Cas9 gene editing platform set up to investigate COVID-19 mechanisms CRISPR-Cas9 with gene editing Dissemination support to CARE-4, DATA Minimal Replication complex (mRep-12) Recruitment for screening with functional and structural characterization 	<ul style="list-style-type: none"> PKC2 antibody discovered Activated animal proof of concept for lead oral molecule compounds Comprehensive study of remdesivir and Shiga Resistance mutations Identified gene signature in COVID-19 convalescents CRISPR-Cas9 with gene editing Dissemination support to CARE-4, DATA Recruitment for screening with functional and structural characterization Evaluated efficacy via 30 experiments on 8 small molecules & 2 antibodies in vivo 	<ul style="list-style-type: none"> PKC3 antibody discovered Identifications of 14 entries as novel target for phenotypic hit Activated animal proof of concept for novel target for another phenotypic hit Published app detailing human genetic COVID-19 association mechanisms Change & set up of CARE's set up of HTS assays 	<ul style="list-style-type: none"> PKC4 antibody discovered First oral molecule series based on compound partner Discovered Epitope Transduction Complex as a novel target for another phenotypic hit Published app detailing human genetic COVID-19 association mechanisms Change & set up of CARE's set up of HTS assays 	<ul style="list-style-type: none"> PKC5 antibody discovered First oral molecule series based on compound partner Discovered Epitope Transduction Complex as a novel target for another phenotypic hit Published app detailing human genetic COVID-19 association mechanisms Change & set up of CARE's set up of HTS assays 	<ul style="list-style-type: none"> PKC6 antibody discovered First oral molecule series based on compound partner Discovered Epitope Transduction Complex as a novel target for another phenotypic hit Published app detailing human genetic COVID-19 association mechanisms Change & set up of CARE's set up of HTS assays

Public Deliverables & Resources

- 15 Deliverables
- 25 Datasets
- 43 Publications
- ... and counting!
- Find Resources

Outcomes

- 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
- Novel 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
- Novel 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

Tackling Coronavirus Through Science and Collaboration

This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking (IMI) under grant agreement No 101019727. The IMI receives support from the European Union's Horizon 2020 research and innovation programme, BPIA, BIL & MELISSA, GATES FOUNDATION, GILDA, HEALTHY LEADERSHIP, and the UK Biotechnology and Biological Sciences Research Council.

You can also find a library of our [news stories](#) and useful [resources](#) (public datasets, deliverables and summaries) on the CARE website

- For internal use only! -



All about CARE

CARE is one of [8 IMI EC funded consortia](#) playing a role in supporting efforts targeting coronavirus. It was launched in April 2020 and is Europe's largest scientific research initiative committed to tackling COVID-19. It closes on 31st March 2025.

Its dual goals were firstly to find solutions to address the arising emergency; and secondly for future pandemic preparedness, exploring small molecule and antibody options.

CARE comprises 38 highly respected partners from around the globe, bringing together the relevant academic and industry expertise, with a budget of 76 million euro split between contributing EFPIA partners and matched by the European Commission. It is led by Marnix Van Loock of Johnson & Johnson, with Ashley Roe representing Takeda as co-lead, and Professor Yves Lévy of VRI-Inserm as the project co-ordinator.

The consortium comprises three research pillars, addressed by eight work packages working independently and collaboratively towards our goals.



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Project Coordinator: Professor Yves Lévy, Professor of Clinical Immunology and Executive Director, VRI-Inserm

Project Lead: Marnix Van Loock, VP, Head of Discovery and Translational Biomarkers, Communicable Diseases, J&J



Project Co-lead: Ashley Roe, representing Takeda

Early discovery
Late discovery
Clinical development

Emergency response		Long-term strategy	
Pillar 1 Drug repurposing		Pillar 2 Small molecule drug discovery	Pillar 3 Virus-neutralising antibody discovery
WP1: Anti-coronavirus drug discovery in phenotypic virus cell-based assays			
<div style="background-color: red; color: white; padding: 10px; text-align: center; border-radius: 15px;"> <p>Click here for a closer look</p> </div>		WP2: Target-based drug discovery and design	
		WP3: Hits to leads	
		WP4: Antibody-based immunotherapies	
		WP5: System biology	
		WP6: From lead to pre-clinical candidate and proof of concept in animal models	
		WP7: Clinical evaluation of repurposed or novel SARS-CoV-2 antivirals or antibodies	
WP8: Management, governance, communication, dissemination and exploitation			



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Reminders

This project has received funding from the Innovative Medicines Initiative 2 Joint Undertaking (JU) under grant agreement No 101005077. The JU receives support from the European Union’s Horizon 2020 research and innovation programme, EFPIA, GATES FOUNDATION, GLOBAL HEALTH DRUG DISCOVERY INSTITUTE and UNIVERSITY OF DUNDEE.

The content of this publication only reflects the author’s view and the JU is not responsible for any use that may be made of the information it contains.

In association with:



Gates Foundation



More information

Go to the CARE website (www.IMI-CARE.eu) for more information about

The CARE [project overview](#)

The CARE [consortium partners](#)

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