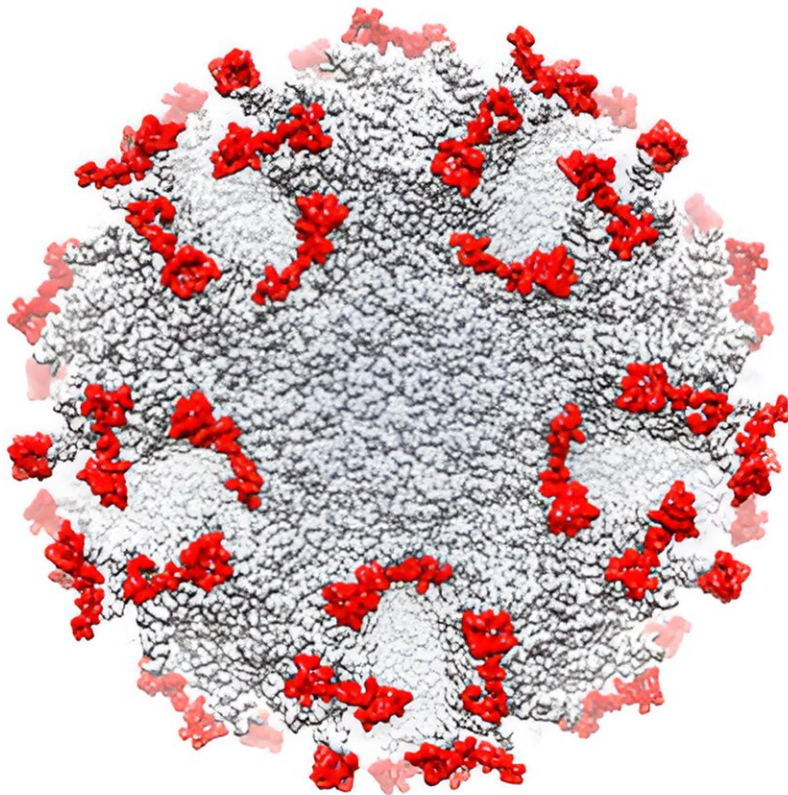


Research demonstrates ability of thermostable nanoparticle design platform to tackle viral infections

November 29 2023



ADDomer COVID vaccine. Credit: University of Bristol / Imophoron

New research has demonstrated the potential for the ADDomer platform to produce thermostable vaccines and reagents to tackle viral infections

The study led by the University of Bristol and Imophoron, a biopharmaceutical company developing thermostable nanoparticle vaccines using its ADDomer platform, is [published](#) in *Antibody Therapeutics* today (Nov. 29) under the title "In vitro generated antibodies guide thermostable ADDomer nanoparticle design for nasal vaccination and passive immunization against SARS-CoV-2."

The research team explored the innovative technology behind the development of an ADDomer vaccine targeting severe acute respiratory syndrome COVID-19 (SARS-CoV-2).

The study, using an integrated approach, combined synthetic, computational and structural methods with in vitro antibody selection and in vivo immunization to design, produce and validate nature-inspired nanoparticle-based vaccines and reagents.

The research demonstrates the use of Imophoron's patented multivalent nanoparticle superbinder technology against SARS-CoV-2, including immune-evasive variants of concern.

Imre Berger, Professor of Biochemistry and Director of the Max Planck-Bristol Center for Minimal Biology at the University of Bristol, and co-author on the paper, said, "COVID-19 reminds us of the critical importance of being prepared for the next pandemic, requiring innovative approaches to help and speed up [reagent](#) and [vaccine](#) development against emerging threats.

"Our study demonstrates the use of ADDomer-based nanoparticles in active and passive immunization and provides a blueprint for developing [reagents](#) and vaccines to tackle respiratory [viral infections](#)."

Richard Bungay, Chief Executive of Imophoron, commented, "This important paper highlights Imophoron's unique ADDomer and Gigabody

technology platforms and their significant potential in developing novel, thermostable vaccines to combat infectious diseases.

"The research represents a [significant milestone](#) for our team of world-class scientists, in collaboration with the excellent team at the University of Bristol, in our ongoing commitment to advancing global health."

More information: Dora Buzas et al, In vitro generated antibodies guide thermostable ADDomer nanoparticle design for nasal vaccination and passive immunization against SARS-CoV-2, *Antibody Therapeutics* (2023). [DOI: 10.1093/abt/tbad024](https://doi.org/10.1093/abt/tbad024)

Provided by University of Bristol

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