



## **OXGENE and The Native Antigen Company Announce Collaboration to Increase COVID-19 Antigen Production for Diagnostic Kits and Vaccine Development**

**Oxford, UK, 02 April 2020:** OXGENE™ and The Native Antigen Company today announced a collaboration to scale up production of SARS-CoV-2 (COVID-19) reagents by combining OXGENE's proprietary Adenoviral Protein Machine Technology with The Native Antigen Company's antigen development expertise. Together, OXGENE and The Native Antigen Company will aim to scale their antigen manufacturing capabilities to deliver high-purity, recombinant proteins for the development of diagnostics and vaccines.

OXGENE and The Native Antigen Company are developing an improved, scalable approach to SARS-CoV-2 antigen manufacture. The Native Antigen Company was one of the first recognised suppliers of SARS-CoV-2 antigens in [February 2020](#), demonstrating their ability to rapidly support the diagnostic and vaccine industries with high-quality infectious disease reagents. OXGENE's Protein Machine Technology allows for the scalable production of viral proteins in mammalian cells using their proprietary adenoviral expression vector. Through genetic modification, the adenovirus is 'tricked' into making SARS-CoV-2 proteins rather than its own, thereby harnessing the innate power of highly scalable viral protein production.

The Native Antigen Company's recombinant SARS-CoV-2 antigens are produced in mammalian cells to ensure full glycosylation and proper protein folding, both of which are essential for full biological and antigenic activity. The rapid scale up production of SARS-CoV-2 antigens is critical for the development of widely available diagnostic tests.

Unlike the PCR tests that are currently being used, these diagnostics will be able to confirm past infections and determine levels of immunity to SARS-CoV-2. This could be invaluable for disease modelling and public health policy, as true transmission rates and case fatality rates can be determined. These tests could also be instrumental for the diagnosis of healthcare workers who have been exposed to the virus to ensure that they have developed natural immunity before returning to work, and to help measure patient immune responses for the rapid development of a SARS-CoV-2 vaccine.

This collaboration builds on a long-standing collegiate relationship between the two Oxford-based businesses as they work towards developing more scalable technologies for the diagnosis of disease, and the cost-effective manufacture of high-quality diagnostics and vaccines.

**Dr Ryan Cawood, Chief Executive, OXGENE, said:** *"Our novel Protein Machine Technology represents a significant development in the rapid and scalable generation of high-quality viral proteins. We're delighted that by collaborating with The Native Antigen Company, we can take advantage of our technology to support the needs of researchers racing to develop much-needed diagnostics and vaccines against COVID-19."*

**Dr Andy Lane, Commercial Director, The Native Antigen Company, said:** *"We are committed to developing the highest-quality reagents in rapid response to emerging epidemic diseases. Since the start of the crisis, the demand for our COVID-19 antigens has increased significantly, and by scaling*

*up production of these vital reagents in collaboration with OXGENE, we hope to be able to support more researchers in their critical work developing diagnostics and vaccines.”*

OXGENE and The Native Antigen Company aim to complete the first validation of this new paradigm in protein expression within the next month, which could have a demonstrable impact on the race to develop diagnostic kits and vaccines against this virus.

For further information about The Native Antigen Company's Coronavirus Antigens, please visit: <https://thenativeantigencompany.com/coronavirus-dashboard/>

**ENDS**

### Notes to Editors



*Dr Ryan Cawood, Chief Executive at OXGENE*



*Dr Andy Lane, Commercial Director at The Native Antigen Company*



*The Native Antigen Company's Novel Coronavirus antigens*

For high-resolution images please contact Zyme Communications.

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**About OXGENE™** <https://www.oxgene.com/>

OXGENE™ finds solutions to seemingly impossible problems. Our unique combination of precision engineering and breakthrough science, together with advanced robotics and bioinformatics, accelerates the rational design, discovery and manufacture of cell and gene therapies.

We work at the very edge of impossible. We solve the problem of high-titre, scalable virus manufacture for gene therapy treatments. We address the challenge of speed and robustness in gene

editing with our high throughput, automated CRISPR platform. We use our novel mammalian display technology to discover antibodies against previously intractable membrane proteins.

OXGENE™ accelerates the discovery and production of cell and gene therapies, addressing key industry bottlenecks and facilitating new therapeutic approaches. We redefine 'possible' in mammalian cell engineering.

**About The Native Antigen Company** [thenativeantigencompany.com](http://thenativeantigencompany.com)

The Native Antigen Company is one of the world's leading suppliers of reagents that enable research into vaccine development and diagnostics for emerging and endemic infectious diseases. The Native Antigen Company specialises in the development and manufacture of native and recombinant viral and bacterial antigens, antibodies and immunoassays, alongside bespoke product development and custom manufacturing using its proprietary mammalian cell expression system.

The Native Antigen Company's team have decades of experience in the isolation and purification of native antigens and high-yield mammalian cell expression systems, ensuring conformity to native type. The Company's high-quality reagents have been widely adopted by leading pharmaceutical, *in vitro* diagnostic assay manufacturers, and academic groups in cutting-edge vaccine research and serology, where correct folding and glycosylation are vital.

The Native Antigen Company prides itself on an ethical and sustainable approach, exemplified by its use of 100% renewable energy and recycled packaging wherever possible, and building honest and transparent relationships with its customers and collaborators.

Founded in 2010, The Native Antigen Company is located in Oxford (UK) and has a global network of distributors.

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