



## Intravacc and Celonic to Develop and Produce a Novel COVID-19 Vaccine

- Combining Intravacc's OMV-delivery platform with Covid-19 Spike proteins
- Preclinical studies to start shortly for candidate selection and inhouse pilot scale GMP production

**BILTHOVEN, Netherlands and BASEL, Switzerland, 29 July, 2020** – [Intravacc](#), a global leader in translational research and development of viral and bacterial vaccines, and Celonic Group, a premium biopharmaceutical contract development and manufacturing organization (CDMO), specialized in development and production of Advanced Therapy Medicinal Products (ATMP) and mammalian cell lines expressed bio-therapeutics, today announced that they have signed a research agreement to further design, develop and produce a Covid-19 vaccine based on an immunogenic Spike (S) protein of SARS-CoV-2 combined with Intravacc's proprietary [Outer Membrane Vesicle \(OMV\) technology](#).

In the beginning of March this year Intravacc started working on the development of four candidate coronavirus vaccines based on three proprietary technologies: Vero cell, OMV and iBoost.

For this specific joint vaccine development, Intravacc combines its safe and immunogenic OMV delivery platform with S-proteins expressed by Celonic Group's industry-leading CHOvolution<sup>®</sup> mammalian cell expression system, in order to generate a highly effective and balanced B and T cell response against SARS-CoV-2. Swiss based Celonic Group will construct cell lines producing the S-protein in high quantities and develop a GMP production process. Preclinical studies will start shortly to select the best candidate protein for the vaccine. The collaboration aims to accelerate development of Intravacc's COVID-19 OMV protein vaccine, which is expected to enter clinical testing in 2021.

### **Dr. Jan Groen, Intravacc's Chief Executive Officer of Intravacc said:**

*"Several studies have shown that OMVs have the ability to enhance the immune response and can be relatively easy formulated with target specific peptides and proteins. This, combined with the fact they can be quickly scaled-up for manufacturing, makes it an ideal suited platform under the current circumstances where quantity and speed are critical"*

### **Dr. Konstantin Matentzoglou, Chief Executive Officer of Celonic, adds:**

*"At Celonic, we are thrilled to join hands with Intravacc in the fight against this worldwide pandemic. The novel vaccine has the potential to prevent morbidity and mortality of COVID-19. Together, we have an opportunity to make a difference in the lives of patients at this time of great need."*

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### About OMV platform technology

For the development of vaccines against pathogens, Intravacc has designed and developed a platform based on outer membrane vesicles (OMVs) – spherical particles with intrinsic adjuvating properties. The OMVs can be decorated with immunogenic peptides and/or proteins that will drive effective adaptive immunity. The OMV carrier has been optimized to induce a more effective immune response against these newly introduced antigens.

Intravacc also has developed genetic tools to increase the yield of OMVs, to reduce toxicity, and to achieve the desired antigenic composition. Intravacc's OMV platform is fully scalable and allows for fast and efficient modification of antigen composition, either via genetic modification of the bacterial host or by associating antigens to stockpiled carrier OMVs.

### About Intravacc

The Netherlands-based Intravacc is one of the world's leading institutes for translational vaccinology. As an established independent CDMO organization with many years of experience in the development and optimization of vaccines and vaccine technologies, Intravacc has transferred its technology all over the globe, including oral polio vaccines, measles vaccines, and DPT, Hib and influenza vaccines. Intravacc offers a wide range of expertise to independently develop vaccines from lead concept to clinical phase I/II studies for partners worldwide such as academia, public health organizations (WHO, BMGF), and biotech and pharmaceutical companies.

To learn more, visit [www.intravacc.nl](http://www.intravacc.nl)

### About Celonic

Celonic Group is a privately-owned CDMO based in Basel, Switzerland, with a state-of-the-art bio manufacturing facility in Heidelberg, Germany. Celonic provides comprehensive development and manufacturing services for bio therapeutics including cell line development, USP and DSP development, GMP and non-GMP manufacturing of biopharmaceutical drug substances and drug products, along with cell expression platforms and diagnostics. Celonic offers two cell expression platforms to clients, developers, and service providers – CHOvolution®, developed by Celonic and GEX®, developed by Glycotope GmbH and in-licensed by Celonic. With a new state-of-the-art GMP manufacturing facility for gene vectors and cell therapy, Celonic is soon expanding its existing ATMP development and GMP manufacturing capacity.

For more information, visit [www.celonic.com](http://www.celonic.com)

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