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# CU's GeneSpector introduces new kits to detect Covid-19

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## CU subsidiary GeneSpector introduces new kits to detect Covid-19

Technology to diagnose, safely isolate and neutralise Covid samples was developed at Charles University GeneSpector, a subsidiary company of Charles University making use of technology developed at the school, introduced new kits for more efficient, faster, and safer laboratory detection of Covid-19. Among its benefits, the firm stressed in a press release on Tuesday, is the ability in the new kits to use so-called viRNAtrap fluid to inactivate and preserve virus samples, rendering them safe for further analysis.

By October, the firm plans to release kits which will be able to detect, in parallel, the presence of the two most widespread flu strains, influenza A and B. The availability of both should make it clear whether symptoms are related to the novel coronavirus or the flu.

GeneSpector was founded as a spin-off from CU by Charles University Innovations Prague (CUIP) and three commercial partners. GeneSpector said it is focusing on the whole diagnostic process, allowing all laboratories, no matter how large or small, to diagnose COVID-19 and other viral infections. The creator of the technology, **Professor Stanislav Kmoč from the First Faculty of Medicine at Charles University**, sums up the positive characteristics: "When the solution comes in contact with a nasopharynx swab or saliva, it immediately denaturates the viral particle. Thus, the sample becomes non-infectious and it can be handled without the risk of a transmission to medical and laboratory personnel."



The unique sampling set is accompanied by an isolation and detection kit developed by commercial partners involved in the project: sample isolation takes less than 15 minutes and is compatible with all open instruments on the market. This ensures an immediate applicability in all laboratories equipped with a real-time PCR cyler within the Czech Republic and abroad. GeneSpector says it thus provides a complex solution covering the process from sampling to results, which is already available for purchase online following this link: [https:// www.genespector.com /](https://www.genespector.com/). **Michal Pohludka, CEO of the newly founded company**, summed up main advantages of the prepared kits:

"Thanks to the unique sampling medium viRNAtrap, we provide safety to laboratory personnel. We are also able to provide results in less than 90 minutes after receiving a sample for testing. Additionally, we can handle a series of 94 samples at once. This is going to lift the strain off analytical labs and increase their capacities, all that for a price affordable for any laboratory in the Czech Republic," says Pohludka. In the autumn, the hope is that the fast diagnostic will be accompanied by the possibility to test COVID-19 and Influenza A and B within one analytical run.

"The whole project is a nice example showing how to transfer knowledge into practice and monetise it in the process. By connecting with active investors financing and coordinating the enterprise, we give scientists at Charles University a chance to focus on their research without being distracted by commercialisation tasks," **Otomar Sláma, director of CUIP**, said. In recent years, knowledge transfer has been a major focus of Charles University and CUIP to bring important technology to the market, safely and faster to ensure the benefits are accessible sooner than might have been the case in the past.

Technology developed by Professor Knoch and his team, the university points out, was supported by the **Gama grant programme provided by the Technology Agency of the Czech Republic (TA CR)**. Charles University took part in March call for projects, through which the TA CR provided support for research activities related to COVID-19.

**Charles University Innovations Prague s.r.o.**

CUIP is a wholly owned subsidiary of the Charles University founded in June 2018. It is a research and knowledge dissemination organisation, whose primary goal is to widely disseminate results created at the Charles University and to secure utilisation of intellectual property of the Charles University in the field of research and development and its use for business, industrial, and other similar purposes, i.e. their commercialisation. CUIP can establish or buy shares in spin-off companies in order to commercially utilise intellectual property of the Charles University. Within this field, CUIP closely

cooperates with the Centre for Knowledge and Technology Transfer of the Charles University, which is a standalone part of the Charles University and provides services and information supporting the transfer of knowledge and technology. In 2020, CUIP has already founded two spin-off companies – Charles Games s.r.o. programming and producing computer games and LAM<sup>+</sup> X a.s. developing nanomaterial capable of active defence against a wide variety of pathogens.

For more info visit: [https:// www.cuip.cz](https://www.cuip.cz) .

#### **Commercial partners with GeneSpector on the new kits for the detection of Covid-19**

##### **GENERI BIOTECH s.r.o.**

GB was founded in 1995 as a producer of oligonucleotides. Their know-how covering synthesis of various oligonucleotide modifications translated into development of real-time PCR IVD kits and their portfolio of IVD kits steadily grows since 2010. GB's products are used in laboratory diagnostics in human medicine and R&D.

For more info visit: [https:// www.generi-biotech.com](https://www.generi-biotech.com) .

##### **SPADIA LAB, a.s.**

SPADIA LAB, a network of diagnostic laboratories founded in 2009, is one of the largest providers of laboratory medicine in the Czech Republic. It provides a spectrum of routine, highly specialised, and unique examinations. They are accredited following a norm ČSN EN ISO 15189:2013. They are authorised for COVID-19 testing by the State Health Department ([www.szu.cz/tema/prevence/laboratorni-vysetrovani-puvodce-covid-19-2](http://www.szu.cz/tema/prevence/laboratorni-vysetrovani-puvodce-covid-19-2)). Their significant capacity allows high speed of sample work-up and quality of results, which is crucial for proper patient care in both prevention and treatment.

For more info visit: [https:// www.spadia.cz](https://www.spadia.cz) .

##### **ZKV Career, s.r.o.**

ZKV Career was founded in 2017 and focuses on consulting services for new companies, especially in early stages – the inception, search for investors, and creation of business and marketing strategies. They help companies as consultants and interim managers in the field of management, marketing, business and human resources.

For more info visit: <https://zkvcareer.com> .