



INVENTION OF A COATING WITH ANTI-COVID 19 PROPERTIES AT POLITECNICO DI TORINO

*Thanks to the industrial partnership with the company GV
FILTRI, FFP mask filters will be produced that can destroy
Coronavirus*

Turin, 8 June 2020 - A coating that can be applied to any surface and that has antibacterial, antifungal, and, above all, antiviral properties that can destroy the **Coronavirus** has been invented and patented by the research group of Professor **Monica Ferraris** of DISAT (the Department of Applied Science and Technology) of the Politecnico di Torino.

Thanks to a coating based on silica and silver nanoparticles, on which Professor Ferraris's team has been working for more than ten years, **safer and more reliable filters can be created to eliminate any external pathogens, including the virus that causes Covid-19.** This has been demonstrated in tests conducted by **Dr Elena Percivalle**, at the Fondazione IRCCS Policlinico San Matteo in Pavia, that are being published in the journal *Open Ceramics*.

The technology and the most recent [patent](#) (PCT/IB2018/057639, **Monica Ferraris, Cristina Balagna, Sergio Perero**) associated with it, sparked the interest of **GV Filtri of Baldissero Torinese**, a company that has specialised in the development and production of industrial filters for more than 30 years. The synergy between the university and company brought the public research results to fruition, opening the way to the manufacture of **an innovative product with a high economic and social impact.**

The agreement reached between Politecnico di Torino and GV Filtri is essential for completing the knowledge transfer process for the invention. It enables GV Filtri to industrialise the applied development of the coating on its own industrial filters, with the aim of bringing the technology onto the market, thus introducing a significant innovation to existing products or creating entirely new ones.

*“These kinds of agreements”, says **Giuliana Mattiazzo**, Vice Chancellor for Knowledge Transfer of the Politecnico di Torino, “perfectly represent the ethical outcomes of what we understand as knowledge transfer: the research world needs to enter into dialogue with the entrepreneurial fabric, in a continuous exchange with results much greater than the sum of their parts. The innovation devised and developed within the university must be gathered by companies that need to consistently invest in cutting-edge solutions: together, in fact, they can finalise a process that, alone, they would not have the strength to complete. In this way, it is particularly significant that this agreement was*

signed with a local SME, which will be able to act in diverse ways, from employing new staff, to attracting investments in the region and beyond”.

Marco Vicentini, CEO of GV Filtri adds: *“The Italian entrepreneurial fabric, mainly composed of micro and small companies, has always had difficulty interfacing with the academic world. The company, in our opinion, must make the first step down this path. We became interested in the Politecnico di Torino’s work into antibacterial coatings, and they quickly welcomed and assisted us. We have the privilege of working with an extremely competent and innovative group that is bringing a lot of added value to our company. We deeply believe in the collaboration with the Politecnico di Torino and are sure that, together, we could generate added value for the city”.*

“We have been working on this coating for more than ten years”, Monica Ferraris, Professor leading the research group and co-inventor on the patent, added. *“First the regional funding, then the European funding, were fundamental, and, at last, the initiative for funding the ‘Proof of Concept’ supported by the Politecnico together with Compagnia di San Paolo. But it’s thanks to the help and expertise of our colleagues in the Knowledge Transfer and Industrial Relations Department that our contacts with the parties interested in the patent, GV Filtri in particular, were pursued in such an effective manner.”*