

PRESS RELEASE

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CELL&SOFT BRINGS TO THE MARKET SEC-VIR, A NEW RANGE OF SUBSTRATES DEDICATED TO VIROLOGY

FIRST APPLICATION WITH SARS-COV-2 (COVID-19)

Grenoble, France, May 31st 2021 | Cell&Soft, an independent French biotech company specializing in the development and marketing of innovative cell culture substrates, announces the launch of a new generation of culture plates for viruses' isolation and amplification. The COVID-19 outbreak highlighted the need to isolate viruses from clinical samples, and have fast, simple and robust tools to study the cycle of new viruses using electron microscopy. Professor Bernard La Scola, Head of l'UF Infectious Diseases Crisis and Head of NSB3 laboratory at IHU Méditerranée Infection/IRD, asked Cell&Soft for the development of ready-to-use and inexpensive single break strip microplates for the initial phase of isolation of viruses on host cells (SEC-VIR range). The use of these plates made it possible to gain in speed and quality without significant additional cost. The plates have also made it possible to observe ultra-structural events during infection with SARS-CoV-2, thus contributing to a better understanding of the dissemination of virions to neighboring cells (see comments). The new range SEC-VIR thus brings satisfaction to its users, allowing researchers to focus on their work, without worrying about the preparation of their substrates, while gaining in speed and quality. "It has never been possible to achieve such a high level of quality without making mass productions... it brings us maneuverability with our cultures" comments Pr La Scola.

Jean-Christophe Sergère, Director BD, Open Innovation & Strategic Partnerships at Cell&Soft, comments: "We have chosen an open innovation development strategy to best meet the needs of academic research and the pharmaceutical industry. The development of the SEC-VIR range proves that our strategy is perfectly adapted to expectations of our partners. As a microbiologist, I am also delighted to see the extension of our technologies and know-how to the virology field". And Camille Migdal, President and co-founder of Cell&Soft adds: "SEC-VIR products complement our existing range of flexible substrates (MecaChips™) dedicated to drug discovery, and highlight Cell&Soft expertise. Our team was able to adapt very quickly to this new demand, and showed great efficiency. The involvement of the R&D staff made it possible to address this request very quickly. We are proud to be able to contribute to the fight against COVID-19".



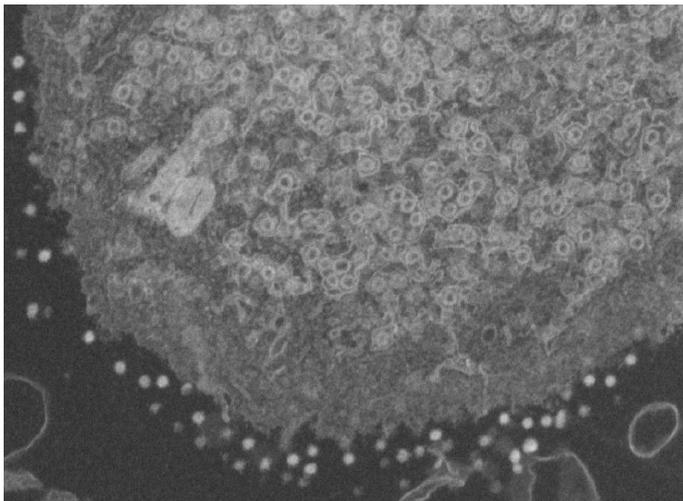
ABOUT CELL&SOFT

Cell&Soft is a young biotech company based in Grenoble, Auvergne-Rhone Alpes Area, France. It was born from a common project between the Microelectronics Technologies Laboratory (CNRS/UGA) and the Grenoble Institute of Biosciences and Biotechnologies (CEA BIG/IRIG), then matured within the SATT Linksiem incubator. Cell&Soft specializes in the development of soft or rigidity-textured cell culture plates made up of synthetic hydrogels reproducing the flexibility of human and animal tissues. For the first time, physiological stiffness supports combine unprecedented control of mechanical properties at the micrometric scale with independent control of surface chemistry.

CELL&SOFT CONTRIBUTES TO A BETTER UNDERSTANDING OF LATE PHASES OF SARSCOV-2 CYCLE

Professor La Scola and his team have just published an article describing a new methodology for rapidly studying viral cultures, in 4 days instead of 3 weeks. The authors used the SARS-CoV-2 virus as a Proof Of Concept. This methodology uses Cell&Soft SEC-VIR single break strip microplates for host cells cultures. The use of SEC-VIR has allowed a better standardization and a time saving for the user, without any significant additional cost. Conventional techniques are time-consuming, require large volumes of cultures, and the detachment of cells before processing to the next steps, thus avoiding the study of late phases of the viral cycle. The use of SEC-VIR plates has helped to maintain the structure of adherent cells, thus significantly improving knowledge about the late phases of the SARS-CoV-2 virus. The fact that the cells remain adherent allowed to show the enrichment of viral particles in the cellular interconnections (microvilli), not only at the apical zone, but also over the whole baso-apical zone. The use of SEC-VIR thus allows the study of late phases of the viral cycle, and allows the development of a more complete model of intercellular dissemination of the virus via the microvilli. More globally, the authors conclude that their technology makes it possible to study any intracellular infectious microorganism, and that it is also suitable for small-size samples such as clinical samples.

Le Bideau, M.; Wurtz, N.; Baudoin, J.-P.; La Scola, B. Innovative Approach to Fast Electron Microscopy Using the Example of a Culture of Virus-Infected Cells: An Application to SARS-CoV-2. *Microorganisms* 2021, 9, 1194. <https://doi.org/10.3390/microorganisms9061194>



SARS-CoV-2 virus surrounding a Vero E6 cell (ATCC CRL-1586) grown on SEC-VIR-096 (Cell&Soft).

The observation is made using a FA-STEM SU 5000 (Hitachi) microscope.

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