Press release

Spanish National Center for Biotechnology uses Atos supercomputing expertise to find out how Covid-19 virus initiates infection

Paris, July 9, 2020 – Atos, a global leader in digital transformation, announce that the Biocomputing Unit at the Spanish National Center for Biotechnology (CNB), part of the Spanish National Research Council (CSIC), is using Atos' supercomputing resource to produce a refined 3D model of the SARS-Cov2 spike protein. By knowing more detail about the structure of this protein, which is the one that the virus uses to enter human cells, researchers can better understand how the virus initiates infection. This important step forward may help in the development of a vaccine.

The model, created at the Biocomputing Unit of CNB-CSIC using 3D cryoelectron microscopy, a complicated structural technique, will enable researchers and scientists to visualize not only the spike glycoprotein but also other SARS-Cov2 proteins. It has been made available to all scientific researchers across the world working on the virus.

> **Professor JM Carazo of CNB**, said: *"We're really proud that we have been able to make this important step forward in the structural understanding of the viral glycoprotein, which is due in part to the acceleration provided by our powerful supercomputers. Now the scientific community worldwide can access a mass of structural knowledge around SARS-Cov-2, so we can work together to help make this invisible enemy visible."*

> **Dr Natalia Jimenez, Atos' HPC, AI and Quantum Life Sciences Center of Excellence Director** added: *"We're honored to be able to provide these researchers the exceptional computing power needed to help them get results faster. By combining research expertise with our technological expertise and experience, we're able to develop valuable resources that will help support the global fight against the virus."*

The HPC resource includes Atos' BullSequana X supercomputer, based at the CNB-CSIC in Madrid, plus additional compute capabilities and access to Atos experts at Atos' new global HPC, AI & Quantum Life Sciences Center of Excellence. CNB-CSIC is one of the first research institutes to use this new center, which provides researchers with access to leading-edge technologies, such as Quantum, High Performance Computing and AI, supported by Atos' products, services and expertise in these sectors to help boost Life Sciences discovery and innovation.

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About Atos

Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos|Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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