



Press release

Qubit Pharmaceuticals, a quantum physics-based drug discovery company, raises €16M

- **Drug candidate selection 2 times faster and investment divided by 10 thanks to computing power multiplied by 100,000**
- **Objective of 10 drug discovery programs in cancer and inflammatory diseases**
- **A seed round that brings together Octave Klabá and the XAnge, Omnes and Quantonation funds**

Paris (France) and Boston (USA), June 10th, 2022 – Qubit Pharmaceuticals, a deeptech company specializing in molecular simulation and modeling using quantum physics, announces that it has raised €16.1 million from XAnge, Omnes, Quantonation and Mr. Octave Klabá, founder of OVH. This seed round with investors specialized in Life Sciences and Deep Tech brings the total amount raised since the company's creation in 2020 to more than €23 million.

The transaction aims at strengthening Qubit Pharmaceutical's proprietary Atlas software platform, capable of leveraging the computing power of supercomputers and quantum computers to accelerate the development of more effective and safer drug candidates. In parallel, the company has the objective to build a portfolio of 10 drug candidates in the fields of oncology and inflammatory diseases.

A Franco-American academic cooperation

Qubit Pharmaceuticals is the spin-off of research work by five internationally renowned scientists in the United States and France⁽¹⁾. Their technological breakthroughs are internationally recognized and have been awarded numerous prizes, including two European Research Council grants and the Atos Joseph Fourier Prize in 2018. The Company is led by Robert Marino, who holds a PhD in quantum memories, and co-founded in 2018 the Deeptech Founders accelerator program.

A company awarded with numerous prizes in France and in Europe

In less than 18 months, Qubit Pharmaceuticals has built an impressive track record of awards, demonstrating how performant its technology and its model are. These awards include the *i-Lab* and *i-Nov* competitions of the *Plan d'Investissement d'Avenir*, the *France Relance* plan, the *Pack Quantique* and *Innov'up Leader PIA* of the Paris region (*Île-de-France*), as well as the French Tech Seed fund of Bpifrance. Qubit Pharmaceuticals is also a winner of the very prestigious European Innovation Council (EIC) accelerator program, which selects only the top 3% of European startups.

Modeling molecules and simulating their interactions using ultra-fast computing

With a team of 20 people specialized in quantum chemistry, computational chemistry, machine learning and medicinal chemistry, and thanks to the use of supercomputers and quantum computers, Qubit Pharmaceuticals has developed its Atlas software platform, which aims to halve the time

required to screen, select, and optimize a promising drug candidate, and to divide the investment required by more than 10.

Qubit Pharmaceuticals models and simulates very precisely the interactions between molecules. By creating true digital twins of physical molecules, Atlas performs in a few hours calculations that would take several years by conventional means, an acceleration of a factor of 100,000. Thus, it is no longer necessary to synthesize drug candidates developed in chemistry or using artificial intelligence algorithms to validate their effectiveness: Atlas allows the modeling of molecules, their description and therefore the prediction of their action.

This disruptive technology allows Qubit Pharmaceuticals to solve 3 key problems in drug development: the quality of predictions, the interpretability of results and the speed of simulations, which generates an improved and accelerated portfolio of therapeutic products.

The goal to become a world leader in ultra-fast drug design

Thanks to Atlas, Qubit Pharmaceuticals' teams have discovered new drug candidates for Covid in less than 6 months and have initiated several research programs in the field of cancer and inflammation.

The funding announced today should enable the Company to become a world leader in supercomputer-aided drug design. Qubit Pharmaceuticals has already established long-term partnerships with players developing high-performance computing infrastructures such as Nvidia, GENCI and AWS, and quantum computing, including France's Pasqal and the University of Sherbrooke (Canada). As a result, Qubit Pharmaceuticals will be able to continuously improve the accuracy of its digital twins and expand the scope of applications to increasingly complex targets.

In the short term, the company will strengthen its pipeline of drug candidates to 10 in-house research programs in oncology and inflammation while entering into agreements with leading research centers and biopharmaceutical companies to accelerate the development of their portfolios.

For this, Qubit Pharmaceuticals will strengthen its teams, which are expected to rapidly reach 60 people divided between Paris and Boston.

Robert Marino, CEO of Qubit Pharmaceuticals said: *“One year after our pre-seed round with Quantonation, we are proud to have obtained the confidence of renowned investors for our seed round. Their financial support and expertise will enable us to realize our ambition to significantly reduce the time to market for new drugs and cut the cost of pre-clinical development by a factor of ten. Qubit Pharmaceuticals is a bridge between the world of mathematicians and physicists who are developing high-speed computational tools based on quantum research, and the pharmaceutical and biotech industries in search of new drugs. By creating digital twins of molecules and simulating their behavior, we are confident in our ability to become a globally recognized player in the development of new drugs in areas where unmet needs remain significant.”*

Jean Philip Piquemal, Chief Scientific Officer and co-founder of Qubit Pharmaceuticals said: *“Qubit Pharmaceuticals is the result of more than 15 years of joint work by the founding academic groups in France and the US. It brings to the industry a new generation of rapid and predictive molecular modeling tools inspired by quantum physics, coupled with new acceleration and visualization strategies leveraging high performance computing, quantum computing and artificial intelligence to perform highly accurate molecular simulations.”*

Christophe Jurczak and Charles Beigbeder, Quantonation's founding partners, added: *“We are very pleased to be joined in this funding round by leading investors such as Xange and Omnes, to empower the talented teams at Qubit Pharmaceuticals to become the world leader in computational molecular*

design. Their novel model of hybridizing the most powerful computational technologies is the key to achieving the quantum advantage among the first and realizing the full potential of the quantum processors under development by the company's partners."

Guilhem de Vregille, Partner chez XAnge, said: *"The massive influx of software into biotech is revolutionizing drug discovery. Qubit Pharma is one of the pioneers of this impressive wave!"*

Fabien Collangettes, Investment Director at Omnes: *"Our conviction is strong on this subject: new molecular modeling technologies will drastically increase the probability of successful development of drug candidates while opening new therapeutic possibilities. The associated value creation and the impact on the healthcare sector are massive. Qubit offers a disruptive quantum modeling technology based on more than 15 years of academic research, and the demonstrated results are already revealing some of the immense potential of their platform."*

⁽¹⁾ Louis Lagardère (Sorbonne Université and CNRS), Matthieu Montes (CNAM), Jean-Philip Piquemal (Sorbonne Université and CNRS), Jay Ponder (Washington University in St Louis), Pengyu Ren (University of Texas at Austin)

About Qubit Pharmaceuticals

Qubit Pharmaceuticals was founded in 2020 with the vision of co-developing, with pharmaceutical and biotech companies, new, more effective and safer drugs. Its software takes full advantage of existing and emerging supercomputers to model quantum effects at the microscopic level with maximum accuracy. The multidisciplinary team and founders are based in France at the Paris Santé Cochin incubator and in the United States in Boston. For more information, or to apply for jobs in an ambitious team, visit www.qubit-pharmaceuticals.com

About Quantonation

Quantonation is the first venture capital fund dedicated to quantum technologies and innovative physics, managing €85 million through its first vehicle Quantonation 1 with over 30 deals already completed, from pre-seed to Series A.

Fields such as materials design, high-performance computing, cybersecurity or ultra-precise detection are now driven by innovation based on these disruptive technologies. Quantonation aims to support their transition to marketable products for industry. Quantonation is located in Paris and Boston and invests worldwide. For more information, please visit www.quantonation.com

About XAnge

XAnge is an early-stage investment fund with €600 million under management, based in Paris and Munich. Its investment team supports European entrepreneurs who aim to change everyday life through technology, investing amounts from €500,000 to €10 million at the seed stage. With an investment thesis focused on making technology accessible to the greatest number of people, XAnge invests in the deeptech, healthcare, fintech, SaaS and e-commerce sectors. XAnge has for example supported Lydia (Finance), Welcome to the Jungle (Human Resources), Treefrog (Biotech), Gleamer (Healthtech) and Ledger (Cryptocurrencies). XAnge is the innovation brand of Siparex Group. www.xange.fr

About Omnes

Omnes is a major player in private equity and infrastructure. With more than €5 billion in assets under management, Omnes provides companies with the equity capital they need to grow through its three core businesses: Venture Capital, Expansion Capital & LBO and Infrastructure. Omnes is 100% owned by its employees. Omnes is committed to ESG issues. The company has created the Omnes Foundation

in favor of children and youth. It is a signatory of the United Nations Principles for Responsible Investment (PRI). www.omnescapital.com

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