



L'avenir de nos organes

A bilateral and strategic cooperation between HCS Pharma and China

Lille, February 14, 2024

HCS Pharma, an avant-garde biotechnology company enabling the recreation of human organ avatars in vitro, has initiated a scientific and industrial cooperation with China since last year to accelerate the development and commercialization of its groundbreaking BIOMIMESYS® technology.

France celebrates 60 years of relations and exchanges with the People's Republic of China this year. Economically, France supports Chinese investments as long as they create jobs and are part of balanced and long-term partnerships. Thus, the Sino-French economic partnership is reflected in long-term industrial cooperations in civil nuclear energy, aerospace, and their expansion into new sectors, including healthcare.

Educational, cultural, and scientific cooperations constitute a major axis of Franco-Chinese relations and an essential vector of influence and promotion of human exchanges. The 14th edition of the Joint Science and Technology Commission, held in February 2019 during the visit to China by Minister of Higher Education, Research and Innovation Frédérique Vidal, identified 7 priority sectors for scientific and technological cooperation: health, agriculture, artificial intelligence, advanced materials, environment, space, and particle physics¹.

President Emmanuel Macron's state visit to China in April 2023 is part of this dynamic to strengthen and develop bilateral cooperation between the two countries.

Bilateral cooperation to develop a BIOMIMESYS® production unit in Lille

It is in this context that HCS Pharma has embarked on scientific and industrial cooperation with China. One of the primary objectives of financial support from Chinese funds to HCS Pharma is the structured development of the HCS Pharma site in Lille, with the creation of around fifty jobs within a year, as well as the continuation of collaborative research with regional and national academic laboratories.

Close relations will enable bilateral exchanges of expertise in scientific and industrial fields. Firstly, the intensity of current research on new drugs and the advanced development of cell therapy in China indeed open up a significant market for HCS Pharma. Thus, HCS Pharma will be able to expand its activities as a Contract Research Organization (CRO)² thanks to its expertise in the in vitro evaluation of therapeutic properties of molecules on innovative 3D models using its proprietary BIOMIMESYS® technology. Concurrently, Chinese expertise in industrial process industrialization will facilitate the development of large-scale production processes for the BIOMIMESYS® matrix. Thus, the sharing of expertise will enable a translational approach essential for the clinical success of new therapies.

¹ Source : <https://www.diplomatie.gouv.fr/fr/dossiers-pays/chine/relations-bilaterales/>

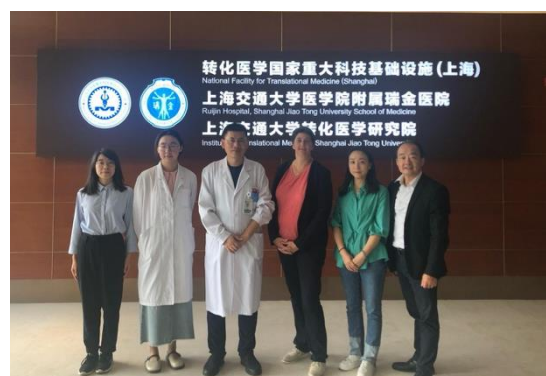
² A contract research organization (CRO) is a company that provides, on a contractual basis (and thus generally for payment), services in the field of biomedical research for the pharmaceutical or biotechnological industry as well as for public research organizations operating in this field.

Ultimately, these exchanges will contribute to the reindustrialization of France, with an openness to the national territory of a self-owned production chain for the BIOMIMESYS® matrix, a technology derived from green chemistry allowing to limit the use of plastic and thus align with a responsible and ecological approach. These collaborations will also enable the development of integrative medicine, which combines Western and Eastern³ therapeutic approaches. Indeed, faced with numerous therapeutic failures, particularly in oncology, the international sharing of medical knowledge, combined with the development of innovative evaluation methods such as the BIOMIMESYS® technology, will enhance the chances of therapeutic success and improve patient care.

Many structuring exchanges in 2023

Since 2019, [Nathalie MAUBON](#), founder and current president of HCS Pharma, has shown strong interest in Asia for its market deployment with several organized trips to different Asian countries. Unfortunately, the pandemic has put an end to her initiatives. In 2023, Nathalie MAUBON's meeting with Vincent GU allowed to revive this momentum. Vincent GU, Franco-Chinese, with degrees from French and Chinese universities, has shared his professional life between France and China and has played a key role in the international development of several French companies like GEMPLUS, Traxens among others, in the fields of technology and industry. His dual culture and experiences convinced Dr. Nathalie MAUBON of the relevance of a Franco-Chinese collaboration.

With the support of [Vincent GU](#), Dr. Nathalie MAUBON made 4 trips to China in 2023. Vincent GU provided her with the opportunity to discover and deeply understand the Chinese scientific and macro-economic ecosystem. She was able to observe a real policy of encouragement and support for innovation, favorable to the development of disruptive technologies such as the BIOMIMESYS® matrix. She was also reassured by the new intellectual property protection policies securing a balanced partnership. Visits to various bioparks across the Chinese territory, from Hainan to Chengdu passing through Guangzhou, Shanghai, Wuxi, Suzhou, Hangzhou, and Beijing, allowed her to see the extent of possibilities for Franco-Chinese cooperation. Visits to various hospitals, such as the Franco-Chinese hospitals Ruijin and Tongji East in Shanghai, the Sir Run Run Shaw Hospital in Hangzhou, the West China Hospital of Sichuan University, or the Xiang Ya Hospital in Hunan, helped understand the translational ecosystem in place, ranging from fundamental research to clinical application, and to initiate the integration of the technology there.



Similarly, various exchanges with potential industrial partners in different applications such as drug discovery, integrative medicine (Wuxi AppTec, Xiangya Pharma, Duo Rui Pharma...), and cellular therapy (regenerative medicine) (Vandycell, Beike Biotech...) have already led to collaborative projects being initiated. Nathalie MAUBON was invited to present the BIOMIMESYS® technology and its various applications at the largest conference in Shanghai, the 2023 Zhangjiang Life Science International Innovation Summit, at the 11th congress on integrative medicine with a focus on cellular therapy in Hangzhou, and also at the 11th conference organized between France and China ("11th International

³ La médecine occidentale s'attache à rétablir le dysfonctionnement d'un mécanisme précis, avec des molécules purifiées issues de l'industrie pharmaceutique. La médecine traditionnelle chinoise, quant-à-elle, traite l'ensemble du corps humain pour rétablir notre équilibre à travers les plantes.

Sensory Biology & Technology Meeting") at Huazhong University of Science & Technology (HUST) in Wuhan.

Nathalie Maubon: *"I was genuinely impressed by the existing ecosystem and the close interactions among all stakeholders: academic professors and researchers, clinicians, industry professionals, financiers, and government officials. It's a perfect network that explains the strong dynamics in China across all sectors, particularly in healthcare. Each biopark already hosts several hundred to several thousand companies, and this is just the beginning. The momentum in the healthcare sector is simply remarkable, with a long-term vision and open-mindedness towards disruptive technologies. I am now convinced that the future of medicine will only be enabled through international collaborations, particularly with Asia and especially China. By being at the heart of this ecosystem, the BIOMIMESYS® technology will easily find its place. This will enrich the development of applications around this technology as well as its industrialization. In addition to continuing fundamental research and proof of concept for the use of BIOMIMESYS technology in France, this will also allow us to acquire all the necessary skills to develop applications and industrialize them in France. This close long-term collaboration between France and China will be a win-win collaboration for the international deployment of HCS Pharma and a clean and sustainable reindustrialization of France and China in all areas of biotechnology industries."*

Vincent Gu: *"Once we have a clear international vision, trust is crucial for trade in all markets. Mutual understanding is fundamental to building this trust. My role is to facilitate cooperation and the development of French companies in China, starting with introducing relevant potential partners and assisting various parties. Setting foot on the ground and meeting stakeholders in the country is the only way to understand what is really happening and to learn to work with clients and partners from different cultures. Although cultures and practices may sometimes seem distant, France and China share many human values, justifying this enduring international friendship that has lasted for 60 years."*

About HCS Pharma

HCS Pharma is a biotechnology company that develops and distributes matrices for the 3D culture of human cells, replicating an environment similar to that of the human body. Its technology enables much better results in medical research and the development of new therapies. HCS Pharma's flagship product is BIOMIMESYS® Hydrosc scaffold™, which is offered to clients from various industries such as pharmaceuticals, dermo-cosmetics, and agri-food.

To learn more, visit: <https://hcs-pharma.com/>

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