

# Ronald Tam CFO, XTALPI

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Our ability to integrate AI, quantum physics, robotics, and lab expertise is what sets us apart and drives our innovation

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Tags:

[China](#), [XTALPI](#), [Artificial Intelligence](#), [CRO](#), [R&D](#), [CFO](#)

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*Ronald Tam, CFO of XTALPI, delves into the company's evolution from its MIT origins to becoming a global leader in AI-driven drug discovery. Tam discusses the strategic decision to expand operations to China and globally, leveraging advanced technologies like quantum physics, AI, and robotics to revolutionize drug and materials discovery. He also highlights XTALPI's successful collaborations with global pharma companies and its unique position in the market.*

**How has XTALPI evolved from its Massachusetts Institute of Technology (MIT) origins, and what factors led you to expand operations in China and globally while utilizing AI, quantum physics, and robotics in drug discovery?**

XTALPI started a decade ago as a spin-off from MIT with a mission to innovate drug and materials discovery through advanced technologies like AI, quantum physics, and robotics. We now have over 200 robotics workstations in China, making these processes more efficient and scalable.

While we retain our global business development headquarters in Boston, we chose Shenzhen for our headquarter due to its rich ecosystem and access to top-tier talent. Every year, China produces a large number of graduates specializing in AI, machine learning, and robotics. Moreover, Shenzhen, with its strong foundation in hardware, software, and life sciences, provides an ideal environment to expand our technological platform at competitive costs.

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Additionally, China's status as the second-largest pharmaceutical market makes it a crucial region for us. We see increasing opportunities in the U.S. and Europe for life sciences, while China and regions like Southeast Asia and the Middle East present strong prospects in material science, particularly in emerging fields like new energy materials.

**A lot is being said about AI but to what extent has AI revolutionized drug discovery? What specific successes has XTALPI experienced in applying this technology?**

AI is becoming a fundamental tool in drug discovery, you can see companies like Eli Lilly and Sanofi, which has fully embraced this technology and carrying multiple deals with AI driven discovering companies in our space. The scale of the chemical space we work with<sup>10</sup> to the power of 60 makes traditional methods far too slow and inefficient. With AI and quantum physics, we can navigate this vast space quickly and uncover new drug targets that were previously inaccessible. AI allows us to simulate and analyze chemical compounds efficiently, significantly reducing the need for traditional trial and error.

At XTALPI, we've partnered with leading pharmaceutical companies in the U.S., Europe, Japan, Korea, and China. Through these collaborations, we've successfully advanced compounds from the earliest stages of discovery to pre-clinical trials, accelerating the process with higher precision. This not only speeds up development but also reduces costs, ultimately making treatments more affordable for patients. While we are still in the pre-clinical phase for many of these projects, the progress we've made is highly encouraging.

**How do you justify XTALPI's high stock market valuation, especially when traditional preclinical services tend to be priced significantly lower?**

The higher valuation reflects the added value that AI and quantum physics bring to drug and materials discovery. For instance, in a recent collaboration with Eli Lilly, we entered into a \$250 million partnership. David Ricks, Eli Lilly's CEO, has publicly discussed the transformative role of AI in biotech, including our work. What sets us apart is our ability to design and synthesize molecules entirely from scratch using AI, quantum physics and automation. This goes beyond simply using pre-existing chemical libraries—we're developing new compounds and advancing them through preclinical optimization.

At XTALPI, we've automated the chemical synthesis process through our over 200 robotics workstations in China, addressing one of the main bottlenecks in chemical R&D. Historically, this process has been highly labor-intensive, but by automating it, we've improved both efficiency and cost-effectiveness while systematically capturing high-quality data. This data is a key differentiator, as there is very little publicly available chemistry data. Our multi-year lead in gathering and analyzing this data positions us as potentially a global leader in digital chemistry.

In our collaborations with most pharmaceutical companies, they retain the intellectual property (IP) for the compounds we help create, while we hold the IP for our algorithms, models, and methodologies. Beyond drug discovery, we also apply our expertise to material science. By using quantum physics to break down chemical compounds into their atomic structures, we help develop more sustainable and functional materials, whether for chemical drugs or industries like EV battery materials, petrochemical catalysis, new energy perovskites, and cosmetics. This dual approach, combining AI and quantum physics, gives us a unique advantage in both drug and materials discovery.

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## **How did XTALPI transition from venture capital funding to an IPO, and what were the key drivers behind that decision?**

XTALPI successfully completed its IPO this past June, a process I led (alongside my three MIT-trained cofounders) after joining the company nearly four years ago. The timing was challenging due to geopolitical issues but highly favorable for AI, which created the right momentum for our public listing. Our early investors include major tech players such as Google (Alphabet US), Tencent, and Sequoia China. Alphabet US, notably, has only directly invested in a handful of Chinese companies—JD.com and XTALPI etc. Additionally, we received strong backing from 5Y, SoftBank and China Life.

The IPO was strategic for several reasons. Firstly, being a listed company enables us to offer share options, which are crucial in attracting and retaining top talent.

XTALPI competes on a global scale, not just in China but also against companies in the U.S. and Europe. Offering equity incentives gives us an edge in a highly competitive market. Furthermore, market volatility has begun to reveal distressed assets, presenting opportunities for consolidation. Many of these companies are not struggling because of poor fundamentals but due to difficulties in raising capital or pursuing IPOs in tough market conditions. As a listed company, we now have the acquisition currency to pursue strategic mergers and acquisitions when the timing is right.

## **XTALPI has chosen the Hong Kong Stock Exchange's Chapter 18C for pre-revenue deep-tech companies for listing. Given your partnerships with major US-based clients like Eli Lilly and Pfizer, why did you choose Hong Kong over NASDAQ?**

Our long-term strategy includes being listed in multiple jurisdictions, which could include China, Hong Kong, and the US. However, our decision to start with Hong Kong was influenced by several factors—geopolitical considerations, evolving regulatory frameworks, and shareholder preferences. While some U.S. investors suggested we list in the U.S., our Chinese investors favored Asia. With over 50 shareholders, it's impossible to reconcile all preferences. In light of the current geopolitical sensitivity, Hong Kong's Chapter 18C offered the optimal strategic option for our listing 2024.

Chapter 18C is designed for innovative deep-tech companies that may not meet traditional financial benchmarks.

Listing also allows us to offer liquidity to our shareholders, a key demand, especially after a decade of growth. Financially, we are well-positioned, with approximately \$400 million in cash, and a strong runway of 4-5 years. Our IPO was well-received, with retail demand oversubscribed by 103 times, resulting in a reallocation from 5% to 20% for retail investors.

## **Given the technical nature of your business, how did you generate such strong interest from retail investors?**

We focused heavily on educating investors and simplifying our message. One of our key points was our involvement in Paxlovid, the COVID-19 pill. This collaboration allowed us to help Pfizer accelerate the launch of Paxlovid by several months, and in Hong Kong, a significant portion of the

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population has used Paxlovid during the pandemic. This relatable case study and commitment to ESG resonated with retail investors. We worked closely with PR and investor relations firms to communicate our story effectively through various channels, including newspapers, radio, and TV.

We have a broad and diverse investor base, ranging from healthcare specialists to global investors, family offices and MIT professor. We also have key opinion leaders in bioscience and highly active investors focused on the Asian market. Since our interim results were published on August 28th, I've been traveling for roadshows to meet investors, providing them with updates on our business progress.

These face-to-face interactions are crucial, especially after our listing, to keep our investors well-informed and engaged.

**In such a competitive environment where big pharma partners with multiple companies at once to see who can do what, how does XTALPI maintain price discipline and avoid downward pressure on pricing? At the end of the day you could be seen as a CRO on steroids!**

Unlike traditional Contract Research Organizations (CROs), which often face intense price competition due to their labor-intensive, fee-for-service models, XTALPI positions itself as a tech-enabled partner rather than a low-tech service provider. Our clients, particularly big pharma, increasingly appreciate the innovation we bring through AI, quantum physics, robotics and other advanced technologies. These innovations help improve efficiency, enhance safety profiles, and increase accuracy in drug discovery. As a result, we can increasingly win deals with significant upfront payments, especially for complex therapeutic areas. Global pharmaceutical companies recognize the value of tech-driven solutions, which shields us from the pricing pressures typically seen in the CRO space.

**How has XTALPI built long-term relationships with global pharmaceutical companies, given the often complex decision-making process involved in adopting AI-driven drug discovery?**

AI-driven drug discovery does require a more strategic, top-level commitment compared to traditional CRO services. However, XTALPI has established a solid 10-year track record, collaborating with 16 of the top 20 global pharmaceutical companies. Our relationships extend beyond operational teams. For instance, Our collaboration with Eli Lilly and contribution towards Paxlovid were acknowledged by their respective CEOs. Senior-level connections are key to our ongoing success in forming long-term partnerships, despite the typically lengthy approval processes.

**What are your thoughts on the biotech sector in Hong Kong, particularly with concerns about low liquidity and limited investor coverage? How does XTALPI position itself in this environment?**

XTALPI offers several differentiations. Our global business development headquarters in Boston gives us an international footprint, and our proven track record of working with top global pharma companies, combined with our cutting-edge technologies like crystal structure prediction and our foundation model for chemistry, differentiates us from other players. This has attracted attention from U.S. and European investors, as well as through the Southbound Stock Connect, which has brought

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in mainland Chinese investors.

Unlike some biotech companies which may struggle with limited coverage, we are recognized as a unique player, with investors and analysts in China and beyond increasingly taking notice. Our position as an innovator in the field helps us maintain momentum and drive interest from major funds in China and overseas, setting us apart in a competitive market.

**Considering the current investment landscape and the lack of independent analysis in Hong Kong's biotech sector, how does XTALPI navigate the challenges of maintaining its unique position?**

XTALPI operates under Chapter 18C, which focuses on deep tech. Investors in this space are more attuned to innovations like AI and quantum physics and large language models (LLMs), which we apply to chemistry and drug discovery. Our early success in building a vertical large chemistry foundation model has attracted considerable attention. This technological differentiation allows us to stand out and continue building momentum. The market may face broader challenges, but our focus on cutting-edge technology keeps us well-positioned for sustainable interest and growth.

**Looking ahead, how do you envision the future of AI-driven drug discovery? Will big pharma integrate these technologies in-house, or is there an opportunity for collaboration and acquisition?**

The future is promising for AI-driven drug discovery, and we're seeing tech giants like Google and DeepMind already making strides in this space through collaborations with companies like Isomorphic Labs. And the Chief Scientist of DeepMind recently won the Nobel Prize award due to breakthrough of AlphaFold. Similarly, other tech giants globally are exploring AI and big data applications in healthcare. However, these companies often excel in "dry lab" techniques—data analysis and machine learning—but lack the "wet lab" expertise needed to validate results through practical experimentation. This is where XTALPI stands out. We integrate both dry and wet lab capabilities, with teams of experienced scientists who ensure computational outcomes are verified with real-world data.

As AI continues to grow in relevance, particularly in life sciences, companies like ours that combine both dry and wet lab capabilities will be increasingly sought after. We foresee significant opportunities for partnerships with tech and pharma giants, as well as the potential for strategic acquisitions. There's also growing interest in entrepreneurs focused on longevity and anti-aging research apart from material sciences. Our ambition is to become the "OpenAI" of large chemistry, building a platform that drives innovation across multiple sectors. This vision positions XTALPI as a key player in the future of both healthcare and technology.

**As CFO, how did you approach the complex task of valuing XTALPI during the IPO, considering its unique blend of biotech and advanced technology services?**

Valuing XTALPI was not straightforward because we operate in a space that combines AI, quantum physics, robotics, and both wet and dry lab capabilities, to empower both life sciences and material sciences, which doesn't align with traditional biotech valuation models. Many of our peers are focused on clinical trial pipelines, while we provide a comprehensive tech-driven platform. To

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address this complexity, I drew on my experience working with top financial institutions like UBS, ING Barings, and Jefferies, which gave me access to leading bankers and analysts on Wall Street and in Asia AND Europe. I collaborated closely with our bankers to ensure that they connected with their global counterparts, applying the relevant valuation methodologies for a company as unique as ours.

The key was communicating XTALPI's distinct value proposition to the global investment community. We're not simply a biotech firm focused on drug pipelines—our platform integrates multiple cutting-edge technologies. This differentiation was critical to explaining our value to investors. For the IPO valuation, we adopted a combination of DCF and sum-of-the-parts valuation, as well as forward revenue multiples. These approaches helped create a clear framework for evaluating XTALPI's long-term potential, despite the complexities of our business model.

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