Jorge Santos da Silva – Founder and CEO, MoonLake Immunotherapeutics



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Jorge Santos da Silva is the CEO and Co-founder of MoonLake Immunotherapeutics, a Swiss biotech company known for its bold approach to drug development. With a background in neuroscience, a decade in academic research, and over 15 years at McKinsey, where he was a Senior Partner, advising pharma and biotech firms, he brings a global, cross-disciplinary perspective to biotech leadership.

Can you walk us through your professional trajectory and what led you to establish MoonLake Immunotherapeutics?

My career has been deliberately diverse, spanning multiple disciplines that now converge in our current venture. I spent 15 years at McKinsey & Company, focusing extensively on the pharmaceutical and biotechnology sectors. This period, particularly during the transformative years of the early 21st century, provided extraordinary exposure to industry evolution— including the advent of monoclonal antibodies, gene therapies, and the broader biological revolution or the COVID pandemic

The consulting environment offered two critical advantages: first, the opportunity to work alongside numerous industry leaders and absorb their strategic thinking; second, the privilege of engaging with diverse biotech and pharmaceutical companies across the entire value chain—from research and development through manufacturing, commercialisation, and regulatory affairs. Equally

valuable was learning from various strategic missteps, which provided insight into pitfalls to avoid.

Prior to McKinsey, I spent over a decade in academic research, including earning a doctorate in neurosciences. Interestingly, my research experience convinced me that whilst neuroscience represents fascinating scientific territory, drug development in that space presents extraordinary complexity—a realisation that ultimately steered me toward other therapeutic areas.

The common thread throughout my career has been an entrepreneurial drive to build and innovate. Even within McKinsey's structured environment, there existed remarkable opportunities for entrepreneurial thinking and execution, which sustained my engagement for longer than the typical tenure there.

What specifically catalysed your transition from consulting to the entrepreneurial path?

The decision emerged from a convergence of strategic insight and entrepreneurial ambition. Throughout my consulting career, I maintained what I called a "black book"—a curated list of exceptional pharmaceutical assets that were underutilised or misdirected within their parent companies' portfolios. The pharmaceutical industry, despite substantial resources, faces stringent capital allocation decisions and often exhibits herd mentality in pipeline development. For example, when the industry focuses on PD-1 inhibitors, everyone develops PD-1 inhibitors; when GLP-1 becomes prominent, resources flood that space.

This dynamic creates a paradox: major pharmaceutical companies possess numerous promising assets that remain frozen, so to speak, because they require innovative development strategies or target indications outside the companies' core expertise. These assets demand entrepreneurial approaches that large organisations, despite their sophistication, often cannot execute effectively due to internal competition for resources and strategic focus.

Our core asset and the nanobody technology platform underlying MoonLake, exemplifies this phenomenon. Despite its compelling scientific profile, it remained underdeveloped due to strategic priorities and competitive positioning concerns.

The convergence moment occurred when my co-founder Kristian Reich MD—a globally recognised dermatologist and key opinion leader who had served as principal investigator for virtually every major biologic development programme—and I recognised our complementary expertise. Kristian possessed intimate clinical knowledge from his role as principal investigator in Merck's psoriasis programme around 2015 whilst I understood the broader strategic and business development

landscape.

Tell us about MoonLake Immunotherapeutics as an organisation. How would you characterise the company's strategic approach?

MoonLake represents a deliberate challenge to conventional biotech wisdom across multiple dimensions. We established the company in May 2021, following extensive negotiation of our licensing agreement with Merck, which provided access to both the nanobody platform technology and the clinical-stage asset.

Our first strategic departure involves portfolio focus. Industry orthodoxy suggests biotechnology companies should diversify across multiple assets to mitigate risk. We rejected this entirely, choosing instead to concentrate exclusively on one asset. This decision eliminates resource dilution and organisational complexity whilst enabling unprecedented depth of expertise development. Risk diversification, we believe, represents the investor's mandate, not management's.

The second unconventional choice concerned our clinical development strategy. Rather than pursuing the established psoriasis indication where we possessed strong Phase II data, we pivoted toward underserved, high-unmet-need therapeutic areas. Psoriasis, whilst representing a substantial market, has become intensely competitive. Our strategic insight recognised that Sonelokimab's unique mechanism of action—dual IL-17A and IL-17F inhibition—could transform diseases that remain largely untreated.

This led us to hidradenitis suppurativa (HS), a devastating chronic inflammatory condition affecting approximately 2.5 million diagnosed patients, today, in the United States alone. The market dynamics here are extraordinary: minimal competition, substantial unmet medical need, and payer willingness to support effective therapies due to the high cost of inadequate treatment. The HS market is estimated at at least USD 15 billion at peak, underscoring its significant commercial potential.

What makes your scientific approach genuinely innovative in the competitive dermatology space?

Our innovation operates on two fundamental levels: mechanism of action and molecular architecture. Regarding mechanism, recent scientific understanding has revealed that IL-17-

mediated inflammation requires targeting both IL-17A and IL-17F simultaneously. Single-target approaches, whilst somewhat effective, cannot resolve the underlying inflammatory cascade. This insight creates a unique competitive landscape: only two molecules in development—our Sonelokimab and UCB's Bimekizumab—address this dual pathway.

However, our molecular architecture provides decisive advantages. Sonelokimab utilises nanobody technology, resulting in a 40-kilodalton molecule compared to Bimekizumab's circa 150-kilodalton monoclonal antibody structure. This size differential potentially enables superior tissue penetration—critical for diseases like hidradenitis suppurativa, where therapeutic access to deep tissue inflammation will likely determine efficacy.

Additionally, our nanobody incorporates three distinct binding domains: targeting IL-17A, IL-17F, and albumin—a protein consistently present in inflammatory environments. This albumin binding provides enhanced half-life and potential targeted delivery to sites of inflammation, capabilities impossible with conventional monoclonal antibodies.

The manufacturing advantages are equally compelling. Our low-viscosity formulation enables monthly administration via single, rapid injection. Competing products require multiple injections and extended administration time, creating meaningful patient experience differentiation.

Could you provide more context on hidradenitis suppurativa and why it represents such a significant opportunity?

Hidradenitis suppurativa exemplifies the type of transformational opportunity we prioritise. This chronic inflammatory disease typically manifests during adolescence, predominantly affecting women, and creates devastating impact across multiple dimensions.

The pathology involves three distinct lesion types: large abscesses, nodules throughout affected skin areas, and most significantly, draining tunnels that form deep within tissue. These tunnels, filled with infectious material, must find drainage pathways, resulting in persistent, malodorous discharge from sensitive body areas including underarms, buttocks, and genital regions.

Current treatment options are inadequate. Adalimumab provides some level of improvement for approximately 50 percent of patients, but efficacy diminishes after nine to ten months. Another approved IL-17A inhibitor, launched in 2023, generated USD 1 billion in first-year sales despite providing meaningful improvement for only around 10 percent of patients. This market response demonstrates the desperation for effective therapies.

Our Phase II data, from June 2023, showed unprecedented results: 75 percent improvement scores as primary endpoint—a standard no competitor has attempted. One in four patients achieved inflammatory remission at 24 weeks, an outcome previously considered unattainable. Our treatment effect in Phase 2 measured nearly 30 percent compared to 10 percent for the approved IL-17A inhibitor and 17.5 percent for Bimekizumab.

Could you elaborate on your financing strategy, particularly your recent USD 500 million facility with Hercules Capital?

Our financing approach reflects our broader strategic philosophy of challenging industry conventions. We went public through a SPAC transaction in 2022—a mechanism that was experiencing significant reputational challenges at the time. However, we believed this route offered superior strategic positioning compared to traditional IPO processes.

The Hercules Capital arrangement represents genuine innovation in biotech financing. This facility of up to USD 500 million provides an unprecedented runway for a company of our stage, particularly in the current market environment. The structure—essentially a debt facility secured against our development programme—had never been executed previously for a Phase III- asset. This provides extraordinary strategic flexibility: we can access public equity markets when conditions are favourable and valuation appropriate, but we are not compelled to do so, that is, no “financial overhangs”.

Combined with our previous equity raises totalling approximately USD 700-800 million, we possess nearly USD 1 billion in accessible capital. For a biotechnology company in today’s environment, this represents exceptional strategic advantage.

What does your commercialisation timeline look like?

The United States represents our primary commercial focus, given the number of patients suffering, the market size and regulatory advancement. FDA processes are most mature, with European launches following approximately one to two years later.

Our Phase III readouts commence around this September, with additional programmes reporting throughout the following year. We are simultaneously building US commercial infrastructure, recruiting commercial leadership, and establishing market access capabilities.

Limited therapeutic options, substantial unmet need, and payer recognition of inadequate treatment costs create favourable market dynamics. These patients currently impose significant healthcare system burden through emergency room visits, surgical interventions, and complex medication regimens. Importantly, they experience low levels of quality of life.

Your hiring philosophy appears quite unconventional. Could you explain your approach to talent acquisition?

Traditional biotech hiring practices represent another area where we deliberately diverge from industry norms. Conventional wisdom suggests recruiting exclusively from pharmaceutical and biotechnology backgrounds. We consider this a limitation rather than an advantage.

Approximately 40 percent of our workforce originates from entirely different industries. Our Head of Human Resources comes from oil and gas, our Chief Information Officer from hedge funds, our Head of Legal from an industrial background. This diversity is intentional and strategic.

Why this approach? When scaling from 20 to 150 employees in 2023, and subsequently to over 200, we required leadership capable of rapid, efficient organisational development. Industry veterans often carry embedded assumptions about “how things are done” that can inhibit innovation and efficiency.

Our Head of HR, for example, possesses extensive experience in rapid scaling, international recruitment, and building high-performance cultures across diverse talent pools—capabilities essential for our aggressive growth trajectory. These competencies transcend industry boundaries and often prove more valuable than sector-specific experience.

How does this philosophy translate into operational efficiency?

I feel the results speak for themselves. Our cost base operates at approximately 30-40 percent of comparable US biotechnology companies. When we raised $500 million, we did not purchase expensive real estate or construct elaborate facilities. Every capital allocation decision undergoes rigorous scrutiny: does this expenditure directly advance clinical development, enhance our manufacturing capabilities, or accelerate our path to market?

This discipline extends throughout our operations. Our Chief Financial Officer, Matthias Bodenstedt, brings McKinsey analytical rigour to every financial decision. We have established a reputation

among investors as exceptionally disciplined in capital deployment—a competitive advantage that enables us to achieve more with less.

Looking forward, what is your vision for MoonLake's future?

Our strategic objective is straightforward: we intend to bring Sonelokimab to market and establish MoonLake as a multi billion dollar enterprise built upon a transformative product and technology This will be achieved through innovative commercialisation approaches that differentiate us not only scientifically but also in our engagement with patients, physicians, and the broader healthcare ecosystem.

I want to be explicit about our partnership philosophy: we do not intend to partner with large pharmaceutical companies on development. Having spent years observing such relationships, I understand their limitations intimately. Partnerships consume enormous management bandwidth through complex negotiation and coordination requirements whilst diluting both financial returns and strategic control.

Any final message for our international audience?

I would emphasise the broader portfolio opportunity beyond hidradenitis suppurativa. While HS represents our most immediate commercial catalyst, Sonelokimab's mechanism of action creates opportunities across multiple inflammatory conditions—palmoplantar pustulosis, axial spondyloarthritis, and potentially psoriasis itself.

This represents not merely a single-product company, but a focused platform capable of transforming treatment paradigms across inflammatory diseases. Our unconventional approach—concentrated focus, innovative financing, diverse talent acquisition, and contrarian strategic choices—positions us to deliver exceptional value to patients, healthcare systems, and investors alike.

The biotech industry requires fundamental rethinking across operational, strategic, and financial dimensions. Moonlake demonstrates that alternative approaches can deliver superior outcomes when executed with discipline and strategic clarity.

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