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Unlocking the Innovation Potential in Singapore's Life Sciences Ecosystem

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Alessandro Falcone, Head of JLABS Singapore "Singapore Economic Development Board (EDB) and JLABS Singapore collaborate on accelerating early-stage breakthrough discoveries into innovative medicines, medical technologies, and healthcare solutions"



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The bioscience landscape in Singapore is rapidly evolving, driven by a confluence of innovation, strategic partnerships, and a supportive ecosystem that fosters early-stage advancements. Collaborative efforts between industry players, government bodies, and research institutions are unlocking new possibilities in precision medicine, biotech, and medtech, positioning the city-state as a hub for transformative healthcare solutions. With a focus on addressing unmet medical needs and leveraging cutting-edge technologies, initiatives in Singapore are not only accelerating the commercialization of early-stage discoveries but also nurturing a robust pipeline of clinically relevant innovations. This dynamic environment is further enriched by global networks, mentorship programs, and resource-sharing platforms that empower startups to transition from concept to impact.

As the industry grapples with challenges like scaling operations and navigating complex regulatory frameworks, Singapore's life sciences sector continues to demonstrate resilience and adaptability. By prioritizing sustainable growth and fostering cross-border collaborations, the ecosystem is setting a precedent for how targeted investments and strategic alignment can propel bioscience innovation forward, ultimately benefiting patients and reshaping the future of healthcare in the region.

Johnson & Johnson, in October 2023, announced a collaboration with the Singapore Economic Development Board (EDB) to unlock innovation potential in Singapore's life sciences ecosystem. In the 12 months since, JLABS Singapore has onboarded 35 portfolio companies, empowering them with critical knowledge, experience, networks and practical frameworks to help them advance their development journey. *BioSpectrum Asia* spoke to **Alessandro Falcone, Head of JLABS Singapore,** on the occasion of JLABS Singapore's first anniversary.

- **Could you elaborate on the shared collaborative approach Johnson & Johnson Innovation and Singapore Economic Development Board are pursuing to foster bioscience innovation in the city-state?**

In October 2023, Johnson & Johnson announced a collaboration with the Singapore Economic Development Board (EDB) focused on unlocking the innovation potential in Singapore's life sciences ecosystem. The unique collaboration supports early-stage companies with a base in Singapore to help accelerate their early-stage discoveries into innovative medicines, medical technologies, and healthcare solutions.

Now the first anniversary marks the culmination of a big commitment. There's definitely a lot of involvement, not just from the EDB, but from many different ecosystem players that has made this so exciting and successful. By successful, I mean the number of companies that have joined, the number of commitments they have made more broadly, and the programs and activations we have done that have raised understanding and perception of what Singapore can do as a bioscience hub.

JLABS is also engaging with local incubators and strategic collaborators in the ecosystem to offer venture and talent development programs, stimulating employment, and commercialization opportunities for these startups

The co11ab Executive Director, A/Prof Yen CHOO, is extending his mentorship to understand how we can proactively collaborate, partner on events and raise awareness about the ecosystem, as well as develop direct engagements with companies. J&J is located at Science Park, which allows us to reach out to the companies directly, making it a strategic location to connect and collaborate under a multi dimensional R&D ecosystem.

- **What are the major milestones JLABS Singapore has achieved in the first year of operations?**

One year in, JLABS Singapore has seen incredible success in its collaboration with EDB and incubated startups.Our portfolio continues to grow, with 35 companies currently part of JLABS Singapore and 53 percent of these companies are based in Singapore. Eighty-eight percent of companies in the JLABS Singapore portfolio are focused on precision medicine. Our sourcing pipeline remains robust and allows us to focus our efforts on nurturing strong local champions, which are commercially ready and clinically relevant. These include companies like VerImmune which is focused on cancer immunotherapy. Avecris, with its novel gene delivery platform, earned residency with the BLUE KNIGHT™ program, a joint initiative between Johnson & Johnson and BARDA. Vivo Surgical, a pioneer in flexible endoscopic robotics, received the prestigious WIPO Global Award from the World Intellectual Property Organization.

To further inspire advancements in precision medicine, we launched the Singapore QuickFire Challenge: Precision Immunology in October. This program invites innovators from across the globe with an active interest in the Singapore innovation ecosystem to submit their potentially transformative precision medicine approaches for targeted therapies that can be applied across Immune-Mediated Disease.

- **What are some of the success stories from JLABS Singapore startups?**

We are proud of bringing amazing companies to Singapore month after month from the pharma, biotech and medtech arena. Our portfolio's strength is evident by the fact that some of these companies have already raised capital and have signed deals. Therefore, I view that as a success throughout.

We're incredibly proud of the groundbreaking work being done by our startups. Here are just a few examples of success stories on how JLABS is turning promising ideas into tangible healthcare solutions:

- **Avecris**, with its novel gene delivery platform, earned a coveted spot in the BLUE KNIGHT™ program, a joint initiative between Johnson & Johnson Innovation and BARDA.

- **Vivo Surgical**, a pioneer in flexible endoscopic robotics, received the prestigious WIPO Global Award from the World Intellectual Property Organization.
- **VerImmune** secured $4.5 million in the first closing of its Pre-Series A financing, bringing it one step closer to its groundbreaking mission: to revolutionize cancer immunotherapy. VerImmune announced a research agreement with J&J last year for leveraging its unique immuno-oncology therapeutic platform.
- **ChemLex** completed a $26 million Series A financing round led by Qiming Venture Partners and LYFE Capital, with Sinovation Ventures and MegaRobo participating. The funds will be used to further improve product development, expand into commercial markets, and support international expansion.

These success stories, and many more within the JLABS Singapore portfolio, underscore the power of collaboration, mentorship, and access to resources in propelling early-stage companies towards breakthroughs that have the potential to transform healthcare.

- **Describe JLABS Singapore's strategic approach to tackle commercialization challenges of early-stage companies.**

We work with companies in the early stages of development and innovation. Typically, we work with companies that are one to two years away from commercialization. We foster companies in their science and technology space to help them develop revolutionarily medtech solutions. At JLABS we mentor and support these initiatives holistically. At the JLABS Investor Hub, a number of investors are involved. Our goal is to increase the likelihood of success for companies by assisting them with required mentorship. We have strengthened our investor relations in both Singapore and Korea.

Singapore has many companies in the preclinical stage and maybe phase I, meaning if we can help their assets get through, we could have a product on the market in maybe five years. We are strengthening their skill sets that can help a company build its capabilities.

- **What are the key therapeutic areas that JLABS Singapore is focused on?**

JLABS covers multi-dimensional streams aligned to J&J strategic areas of interest, such as medical technology, biotechnology, oncology, immunology, as well as surgical vision care, retinal surgery, and neuroscience. Additionally, there are different platforms or data science that can be applied across a variety of different areas.

- **How does JLABS Singapore differ from other incubators and accelerators in the region?**

What sets JLABS Singapore apart is our comprehensive approach to nurturing early-stage companies. We foster a collaborative ecosystem where startups can leverage Johnson & Johnson's deep-rooted innovation capability, connect with a global network of investors, and receive invaluable mentorship from industry veterans. This holistic approach underscores our commitment to empowering innovators and shaping the future of healthcare in Asia.

Our initiatives and offerings that demonstrate this commitment include:

1. **JLABS Singapore Navigator:** A curated database of active life science companies in the Singapore ecosystem, serving as an innovation hub that brings together the brightest minds in the field.
2. **Investor Hub:** We've grown significantly, now boasting partnerships with 24 top-tier firms. We act as a trusted referral source for high-quality, investable startups, providing them access to potential funding opportunities from over 100 investor firms.
3. **Meet with VC Events**: In the past year, we've hosted six of these events, fostering open dialogue and collaboration between startups and venture capitalists. These events offer exclusive opportunities for our community of CEOs to expand their entrepreneurial knowledge.
4. **Resource Hub**: To further support our startups, we provide access to discounts on services and suppliers. This initiative accelerates scientific progress by making essential resources more accessible.
5. **Global Network Roadshow at BIO, Asia Bio, BIO KOREA, and the APACMed MedTech Forum**: Our participation in these global events showcases our dedication to championing our startups not just in Singapore, but on the world stage.

JLABS Singapore works and has established connections globally, especially in the APAC region. To elevate capabilities of a company, we collaborate across the border, sharing resources and expertise. In addition, JLABS Singapore consists of members from Korea, Japan, Thailand, China, and the United States, so if those companies do well, it will spill over to other countries.

- **How does JLABS Singapore envisage the future, and how will it adapt and remain resilient in the ever-evolving industry dynamics?**

At Johnson & Johnson, our mission is to find and unleash the best early-stage innovations that could transform health outcomes for patients, wherever they originate including Singapore. Singapore's life sciences sector is on an upward trajectory, marked by the presence of around 300 life science startups[1] and bolstered by substantial R&D investments and strong government support. This favorable environment is complemented by robust public funding schemes and a supportive regulatory framework, which collectively drive the sector's growth.

However, unmet critical medical and healthcare needs exist due to some challenges. This is where Johnson & Johnson JLABS Singapore steps in. JLABS Singapore fosters a collaborative ecosystem where startups can leverage Johnson & Johnson's deep-rooted innovation capability, connect with a global network of investors, and receive invaluable mentorship from industry veterans through programs like JLABS Singapore Navigator, the Investor Hub of more than 20 Singapore and APAC venture capital firms and series of Meet with VC Events; the Resource Hub and the Global Network Roadshow at BIO, Asia Bio, BIO KOREA, and the APACMed MedTech Forum.

Through our combined efforts, JLABS Singapore hopes to continue to evolve and adapt to the changing landscape in Singapore, driving impactful innovations that benefit patients worldwide.

- **What are the unique challenges and opportunities of running a biotech incubator in Singapore?**

Running a biotech incubator in Singapore presents exciting opportunities. At JLABS, we address these with a comprehensive approach:

  - All-Encompassing Support: We offer more than the typical incubator by providing access to Johnson & Johnson's vast expertise and global network of potential investors. Our personalized support serves as a launchpad for startups to truly take flight.
  - Global Promotion: We actively promote our portfolio companies on the world stage, showcasing their innovations at major conferences like BIO, Asia Bio, BIO KOREA, and the APAC MedTech Forum. This visibility opens doors to international partnerships and funding opportunities.
  - Rapid Advancement: Leveraging our extensive JLABS network and expertise, we help advance research plans and provide mentorship and solutions swiftly, accelerating ideas into scalable, breakthrough solutions.

These strategies enable us to navigate the challenges of the biotech landscape while capitalizing on the immense opportunities available in Singapore's vibrant innovation ecosystem.

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