

Entrepreneur of the year 2024-Dr Lynne Lim (NousQ)

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Making an Impact with 'CLiKX'



Practicing as an Ear Nose Throat (ENT) surgeon for 25 years, and having received opportunities to help with surgeries in over 10 countries in the Asia Pacific (APAC) region and Middle East, gave Dr Lynne Lim a helicopter view of healthcare needs on a global scale. During a long stint in the public health system and National University Health System in Singapore as a clinician, academic, teacher and administrator, she was always interested in setting up new services, pioneering new surgeries, building new programmes and products. The public system gave her huge opportunities to create and innovate, but the personal risk was of course, a lot less, with funding and manpower more readily available.

She left a tenured Associate Professor position and started private practice at Mount Elizabeth Medical Centre in 2004, for family reasons, and also for the challenge of surviving in the new world of private practice.

"Though many do not realise, starting clinical private practice is also a risky venture into the unknown. It has given me, though, a well-rounded appreciation of what is needed for the entire healthcare ecosystem in Singapore to work well. It has brought me closer to patients and payors and their needs, on a global scale", said Dr Lynne.

She started NousQ, a Singapore-based medical device company in 2021, amidst COVID. The big moment for her was when she decided that if she does not put skin in the game and take a huge leap of faith, the CLiKX device that she had been working on for 10 years with her technical co-founder, Chee Wee, would not help a single patient.

"It would remain in research publications, and it would not translate from bench to bedside. I also realised that no one would do this difficult translation as well as I can, or as committedly as I would. I almost decided overnight. I started my company with just myself and my co-founder, and we were alone with no proper office for the first year. I did not draw a CEO's pay, and Chee Wee's pay was miserable. We raised a small seed round 4 months later, allowing us to hire employee number 3 for Finance & Strategy in 2022, then number 4 for operations and quality assurance. We remain a tight-knit "Bao Gar Liao" team, frugal and thinking out of the box to create the most value for our stakeholders", said Dr Lynne while relating her experience.

Dr Lynne's hard work surely paid off as NousQ's CLiKX has emerged as the world's first and only handheld robotic ear tube surgical applicator device for treatment of Otitis Media with Effusion (OME), a condition where fluid is trapped behind the ear drum in the middle ear space chronically. CLiKX was developed at the National University of Singapore and Hospital, with novel intellectual property protected technology including a proximity indicator, sensor feedback, software programmed for different angles of ear drums, precision cutter. This allows CLiKX to insert a 1 mm ear tube onto the delicate ear drum with greater precision and speed than is currently possible, in just 1 second, with just 1 click of button and with just 1 single handheld CLiKX device.

Sharing more details about the product, Dr Lynne said, "CLiKX is for patients needing an ear tube to decompress middle ear fluid or pressure. It can be both adults and kids, for diseases of OME from immature ear tubes, allergies, sinusitis, adenoid enlargement, dive and flight injuries, head neck cancers and sudden hearing loss. Also, for hyperbaric oxygen treatment for diabetic wounds, burns and infections. The patient now walks into the clinic, and the same day, the ENT surgeon can insert a tube in 1 second under local anaesthesia (LA) ear drops or do without even the LA, as CLiKX is less painful than a vaccination."

This device is also a boon for the surgeon, as surgery can be done even in the clinic, even if there is no ownership of a costly surgical microscope. The surgeon can help 10 patients a day in the clinic with ear tube surgery, instead of waiting for an operating theatre slot availability in weeks to months. The surgeon can carry out the procedure even in low resourced settings, remote settings and even emergency settings.

Strengthening its focus on addressing the unmet healthcare needs, the company is currently raising funds, and inviting investment of \$1.5 million more to close the \$6.5 million round. These funds are being raised for exciting milestones of completing pivotal ASEAN trials in 2024 and HSA regulatory approval in 2025, allowing ASEAN sales, and for pivotal USA trials in 2025 and US FDA clearance in 2026.

Having achieved so much over the years, Dr Lynne is a true enthusiast with new plans to take her startup to the next level, in the future. "NousQ's mission is to develop and commercialise best in class surgical devices that address very large global unmet needs. The quest is to really focus on the patient's voice, to simplify surgeries so there is less risk, less cost, more equity, and provide a more environmentally friendly option. In 3 to 5 years, the goal is for NousQ to have cleared the various regulatory approvals with successful clinical trials, and be commercially available and selling globally. And we will continue to grow our team."

With CLiKX as its flagship product, Dr Lynn is also working on other pipeline products, and aims to make her startup a leading medical device company that continues the quest to really focus on patient's needs.