

# BUILDER OF BRIDGES

Dr Lynne Lim's youthful figure and ready laugh belie a steely determination to learn, teach, and bring skills and people together so that ideas can become realities.


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THE MAKE UP ROOM

A woman with long dark hair, wearing a vibrant yellow-green wool coat over a matching sweater and a black skirt, stands in a modern interior. She is smiling and holding an open book. The background features a dark blue wall with a grid pattern and a wooden shelf. The lighting is warm and focused on her.

**Life is short  
and there is  
work to do.**

WOOL COAT AND  
SWEATER, COS  
WOOL PANTS AND  
SUEDE PUMPS,  
CAROLINA HERRERA  
18K WHITE GOLD  
PENDANT WITH JADE  
AND DIAMONDS,  
AND 18K WHITE  
GOLD RING WITH  
BLACK AND WHITE  
DIAMONDS,  
THE CANARY  
DIAMOND CO.



SILK-BLEND JACKET  
AND PANTS,  
SHANGHAI TANG  
SUEDE PUMPS,  
CAROLINA HERRERA  
18K WHITE GOLD  
NECKLACE WITH  
SOUTH SEA PEARLS,  
THE CANARY  
DIAMOND CO.

**“Building bridges is important — we do a lot of things well, by ourselves or within a group, but we don’t do enough of working together, tapping on the strengths of others. Things are very fragmented and we can’t move fast enough,” says ENT surgeon Dr Lynne Lim.**

But what does it mean to be a bridge? One only needs to examine Lynne’s career.

Between 2002 and 2004, Lynne completed a Master of Science in Public Health at Harvard, spurred by a desire to bridge clinical, administrative, research and education realms of medicine. At that time, many discouraged her, deeming it a waste of time for a surgeon. International colleagues at the school then were also administrators or doctors in non-surgical fields. “I wanted to have a broader perspective of medicine, understand the complex interactions within the field better. I was afraid that super-specialisation would make me over-focused on ENT

and possibly less effective.” This helicopter view of things has coloured many of her endeavours over the years.

Take the roving Hearing Minivan she initiated in 2014. “It’s actually a huge 10m truck, but that doesn’t sound very nice, so we called it the minivan!” she quips.

The idea behind it was deceptively simple: there was a need that had to be met. “Many people need hearing aids but don’t have them. And many of those with hearing aids aren’t getting follow-up rehabilitation or fine-tuning. They get one because it’s affordable or free, but it doesn’t work well without follow up, so they give it up. They assume that hearing loss comes with ageing; they don’t want to trouble their caregivers and they don’t want to visit a hospital, which they equate with being ill.”

A solution was needed, one that would make hearing checks accessible and cost-effective. “Why not bring it to the people? I worked with researchers, audiologists, clinical colleagues and the administrative team at NUH to set up a minivan fitted with hearing aid and rehabilitation facilities. It goes around neighbourhoods and does hearing tests in the van’s soundproof rooms, fits hearing aids, and does rehabilitation when we go back later.”

If that sounds straightforward, it wasn’t. It took more than five years and Lynne’s never-give-up tenacity to raise the funding.

By pitching it as both a health service development programme and a research project, she could tap on the larger pool of available funding. “In the minivan, data is collected, outcomes tracked, and cost-effectiveness analysed; these will guide healthcare policy-makers.

“This project brought together health service

and research funding, the hospitals, the Ministry of Health, Health Promotion Board and community centres all over Singapore,” she says. “Best of all, it made the service accessible and more affordable for those who needed it most.”

Alongside this was another ‘bridging’ initiative, one very close to Lynne’s heart. It was 2006 and she had just been appointed Director of the NUH Centre for Hearing Intervention & Language Development.

#### **If you build it...**

“We were small, three audiologists and two speech therapists. There wasn’t much focus on allied health, but if you can’t support doctors with allied health professionals to carry out the rehabilitation, testing, diagnosis and so on, then the whole service is weak.

“It became my singular aim to build up Audiology. At that time, there was a lot of focus on high-end procedures such as cochlear implants and complex surgeries, but rehabilitation and testing needed audiologists.”

The team was purposefully grown — one or two audiologists each year — which helped the Centre provide a full service by the time Lynne left 10 years later. “Many people think that audiologists only do hearing tests. But the quality of the test is very important, and there is a battery of 10–12 tests, not just one. With more audiologists, specialisation into kids and adults became possible, and related problems of tinnitus (ringing in the ears) and giddiness could be better managed.”

Another initiative was being visualised at this time, and again, it took about six years to realise.

There was no Master of Science in Audiology degree programme in Singapore. “It was embarrassing — neighbouring countries had it but we didn’t, so most of our

**When you begin,  
you can’t think  
too much; if  
you’d known how  
difficult it would  
be, you wouldn’t  
have started.  
Just believe that  
it’s the right thing  
to do and work  
from there.**



LYNNE WITH HER BIGGEST SOURCES OF STRENGTH: MUM, HUSBAND AND DAUGHTER.

audiologists then were from overseas. We were lucky to have good professionals — some stayed while others used us as a stepping stone. If this continued, we'd never be able to build up our own pool to continue to grow and dream bigger."

The same issues surfaced: funding and space challenges, not much focus on allied health. "I needed money and space."

Based on the price of new hearing aids and the increasing demand for them, Lynne realised that funding might lie within the industry. "I kept talking and someone finally asked how much I needed. I didn't know, but thought I had to ask for a big sum that would indicate its importance. I asked for \$30 million."

As it turned out, when the programme was mapped out and the sums done, that was about the amount needed. "We needed equipment for clinical training, soundproof rooms, teaching and clinical rooms, experienced teachers hired

from overseas.

"The timing was great. NUHS was building a new medical block. By brokering for a huge space for the NUS MSc programme right next to the new NUH ENT clinic, educational, research and clinical needs could be better met and cost-efficiently managed. We used the hospital's premises, while they could use the soundproof rooms and tap on the audiologists (teaching or undergoing the Master's programme) when they were not in class. It was a win-win situation for the hospital, NUS, Ministry of Health, Ministry of Education, and industry donor Siemens. I am grateful for the chance to work with many stakeholders who worked across disciplines and ministries to make this possible."

#### The big ENT issue

As Lynne points out, by 2030, Singapore will have 900,000 elderly. More than 50% of them will have hearing loss. Typically,

about 40% of people aged 60–69 have hearing loss, and this rises to 50% after 70 years of age.

The problem is really about getting people to be more

aware of the dangers of hearing loss, get screened, accept hearing aids and other hearing treatments.

"If we don't hear well, our work options are limited. We can't use the phone confidently, we are uncomfortable in meetings and social settings. Our caregivers get upset because we put the volume too high. There is also the safety aspect — traffic accidents, increase in falls by about 300%, missing out on instructions from doctors and nurses. These are all very subtle things with huge implications."

#### Noise-induced hearing loss

Modern life is noisy — devices and players, gaming arcades, concerts, even cinemas are loud. A survey done recently in the US revealed that those below 20 already have some amount of hearing loss. "This is something that used to begin at 40, and it's happening globally."

The challenge? Lack of awareness, on many fronts. "For instance, hearing aids have to be fitted properly and patients must be given the correct expectations. You have to spend time with them, advise

**We have to break out of this mindset that hearing aids are expensive. We need and use them all the time; compare that to the price you're willing to pay for a car, which you only use for a couple of hours a day.**

# BOLDLY BEATING A PATH

Considered one of Singapore's leading ENT surgeons, Lynne is a pioneer in many surgical techniques, procedures and equipment design. She describes two that have a special place in her heart.

## **Bilateral simultaneous cochlear (CI) implant surgery, 2006: First to do it in Singapore.**

At that time, CI was done one side at a time because it's tough and costly. One implant costs about \$40,000. "My first patient when I started putting in both sides within one operation was a one-year-old girl. It took about five hours, preceded by months of sleepless nights.

"When you put in both at one go, you save on cost because it's one surgical event. And when you switch on the implant, the speech therapy for both sides can be done at the same time. If you wait for six months or longer to do the second one, the patient tends not to use the side that has just been placed because it's not working as well yet. Therapy can become a nightmare for the therapists and the families."

That first patient was speaking normally by the age of two and is now a high-performing and confident student.

## **Hand-held ventilation tube applicator for glue ears, in progress: Invention**

Inspired by the 'gun' used for piercings, the idea was borne out of a desire to make a common procedure easier on the patient.

Sometimes after a cold or a change in altitude, fluid collects behind the ear drum. This condition, called glue ears, is very common, especially in children because of their immature ear tubes. When medication doesn't work, the patient needs to undergo a surgical procedure to insert a 1mm tube onto the ear drum so that the fluid can drain out from the middle ear.

"Just to put that small tube in, you put a patient under general anaesthetic, which requires overnight fasting, monitoring and intubating the patient. You need a big surgical team and expensive surgical microscope."

Lynne also wanted to make this easier because, on overseas mission trips, she would see children with this condition but could not help them. "You can't bring the huge surgical microscope up the mountains or into the village, and you don't have the big support team or general anaesthesia support. It frustrated me that we could remove large neck tumours over three hours under local anaesthesia for these children, but could not put in a small ear tube."

Watching her daughter Natania having her ears pierced, Lynne noticed the piercing gun. "The kid screams but the person just does the other ear immediately and it's all done. If I had something like that, I could put the tube on it, press a button and insert it into the ear drum.

"Working with NUS and NTU engineers, we now have a prototype that I can hand-hold in the clinic. I can put local anaesthetic drops or just give a short IV sedation — no intubation and no general anaesthetic, and in a clinic setting. We won't need a big surgical microscope, which costs hundreds of thousands of dollars, because the hand-held device is precisely sensor-guided and automated."

The process takes minutes instead of a half-day commitment. Lynne is also working on a bio-dissolvable grommet ear tube that degrades by itself, so patients don't need to wait 9-12 months for the usual plastic one to be extruded.

Next steps? A business plan, commercialisation, spin-off companies. "Now we need mid-stage venture capital. These innovations may fail at the final stage, but of course we don't intend to. It's a huge learning process, a new ballgame, a lot of work, but very special as I am learning new stuff together with my team everyday."

After 20 years in the public service, Lynne started her private practice at Mount Elizabeth Medical Centre Orchard in 2014. Her clinic offers comprehensive ear, nose and throat services for both children and adults. It also provides comprehensive hearing and ear-balance disorder evaluation, and hearing aid and hearing implant services. The centre's mission is to provide evidence-based, best-practice and personalised care for ENT health in its fullest form. Research and teaching work continue to be important.



PROTOTYPE OF THE HAND-HELD VENTILATION TUBE APPLICATOR.



SILK-BLEND DRESS, HUGO BOSS 18K WHITE GOLD EARRINGS WITH SOUTH SEA PEARLS AND DIAMONDS, THE CANARY DIAMOND CO.

**I was tired of being afraid. This experience taught me to meet tough situations head on and not avoid the unknown.**

and keep adjusting until it works well for them. We counsel, do trials for a few days, continue follow up as the brain is slowly being rehabilitated. It's a lot of work."

#### Reality bites

The fact is, when you don't hear well, you have to focus very hard on piecing things together. You don't realise that all your energy is spent trying to figure out what people are saying and trying not to embarrass yourself or say the wrong thing.

Denial and delaying the use of a hearing aid makes it much worse. Studies show that 10 years after hearing loss began, a hearing aid is going to need a lot more rehabilitation to work well.

"Like a hand that doesn't move after a stroke, the part of the brain that is linked to sound starts shrinking. Unfortunately, that part is where memory and cognition are as well. For

example, dementia patients score very low on mental state questionnaires, but after they put on hearing aids, scores for some can improve tremendously immediately.

"Hearing loss is related to memory decline and dementia; mild hearing loss increases dementia risk by 300%, while severe hearing loss increases the risk by 500%. These are astounding figures," says Lynne.

There is also the cost, which deters many. "We have to break out of this mindset that hearing aids are expensive. We need and use them all the time; compare that to the price you're willing to pay for a car, which you use for only a couple of hours a day.

"The industry, and the private and public sectors, must come together to tackle this challenge. We have to stop protecting our turf and work together. We need one programme that focuses on this

issue, with a strong lead able to break through barriers, pull all the stakeholders together and iron out difficulties."

#### Experiences that shaped

Life experiences make us what we are, and for Lynne, there are two that stand out.

"I grew up being very loved, although there was a lot of tension. For years I spent every night fearful, almost in tears and unable to sleep. This made me the person I am. I don't want to depend on people and want some control over my own life.

"The good thing is that I developed an odd kind of calm. The harder and crazier things get around me, the calmer I get. That has put me in good stead in many of the situations I've been in."

The second circumstance was a recurring childhood dream. "For years I had the same dream. There was a very big lake that I couldn't see the

end of. I would start on one side and hop over stepping stones to get to the other side. Every night I dreaded sleeping. I'd know I was going to fall screaming into the water because I couldn't reach the other side.

"One night, I intentionally plunged into the water. I was tired of being afraid. That was the last time I had the dream. This experience taught me to meet tough situations head on and not avoid the unknown."

Life today is different. Wife to a "very smart, private and discreet" lawyer, and mother to a confident teenager who values friends and has a heart for others, Lynne exudes a breezy and well-earned confidence and contentment.

As a lover of literature, though, she is intense, often dipping into more than a dozen



books at a time, starting in the middle of novels, then skipping between chapters to guess how the story will pan out. She has read and re-read her all-time favourites — Tolstoy's *War and Peace*, Jane Austen's *Pride and Prejudice*, Antoine de Saint-Exupéry's *The Little Prince* and the biographies of Abraham Lincoln — countless times. "They're great stories about life and human nature. I first read *War and Peace* in primary school and have re-read it more than 50 times! Literature has helped me empathise and understand the unspoken fears, the anger, the sadness that people feel but may never articulate."

### Learning from the best

Great novelists aside, Lynne's resume is dotted with the names of some of the world's most revered educational institutions, such as Harvard School of Public Health, Stanford Medical Center, Cincinnati Children's Hospital Medical Center, and Nagata Microtia and Reconstructive Plastic Surgery Clinic. More important than the names, though, are the lessons learnt from inspirational teachers.

### Great leadership, Dr Robin Cotton:

"Brilliant, demanding and inspiring. He stands up for his people. When a patient complains, he takes it on himself. Always fair, celebrating team above individual. He accepts feedback, sometimes harsh — and acts on it. He built

does dressings himself, and unpicks and redoes stitches for hours when he is not satisfied."

### Lifelong learning and great teaching, Harvard School of Public Health:

"Teachers passionate about teaching and always looking for better ways to teach. Never defensive, truly happy when students are better than they are. They could go anywhere for much larger pay, yet they stay, committed to teaching."

### What drives her

"Life is short and there is work to do. I like to work for the underdog, and when I see a need, I want to meet it.

"Work is most worthwhile when I am bridging because there are many smarter people in the world, and many people who do wonderful things but not many think about bridging.

"It doesn't matter what I do, but how well I do it. I am acutely aware of the transience of life, and this gives me a perspective about the big picture, not sweating the small stuff, wanting to do my best, leaving things a little bit better and moving graciously on."

She never plans things more than two to three years in advance. "The most important decisions in my life were made overnight or in a split-second of clarity. I am guided by simple principles. If it feels right, I do it and deal with the rest later."

They are: "Whatever you are, be good at it. Work hard so you have options and can stay true to yourself. Give thanks every day. No one owes you anything. After you cry, wake and try another way. Take the unknown and difficult path, don't avoid tough conversations. Keep the big picture, do some good, live for something bigger than yourself — we pass this world just once." 🌸

a team with 10 subspecialists; each of them has been offered headships in other hospitals but they have chosen to stay with him for decades."

### True artistry and mastery, Prof Nagata:

Microtia is a condition in which the ear is malformed, with no ear canal. "He carves ribs like a sculptor into 3D shapes, wires them together and places them under the skin. The second stage is when he makes the sulcus (projection), which requires harvesting blood supply and skin flaps. It's massive surgery that can take up to 12 hours. He set up his own private hospital for microtia patients,