

Short Communication**Beyond the Microscope: A Reflective Report on an International Observership in Microsurgery at Chang Gung Memorial Hospital**

Cristopher Cárdenas Cruz¹

1. *Department of General Surgery, Hospital de Especialidades “Dr. Bernardo Sepúlveda Gutiérrez”, Centro Médico Nacional Siglo XXI, Instituto Mexicano del Seguro Social (IMSS), Mexico City, Mexico*

Abstract: High-volume microsurgery centers are institutions of clinical excellence providing structured programs for surgeons in training. These centers grant access to advanced techniques, effective mentorship models, highly standardized surgical frameworks, critical thinking, and innovation. During my time at Chang Gung Memorial Hospital (CGMH), I observed more than 50 complex procedures, attended the Chang Gung Micro 2025 Congress, and participated in international discussions on microsurgical education.

This experience changed my understanding of microsurgery, underscoring the importance of genuine mentorship, standardized protocols, technical precision, and a surgical culture rooted in serenity and respect. Such global programs offer opportunities for surgeons from resource-limited settings that may redefine career paths and expand reconstructive possibilities for entire communities.

Keywords: Global Surgical Education, Microsurgical Training, Mentorship in Surgery

How to cite: Cárdenas Cruz C. Beyond the Microscope: A Reflective Report on an International Observership in Microsurgery at Chang Gung Memorial Hospital. J Univ Physicians Surg Pak (JUPSP). 2026; 1–3.

Corresponding Author: *Cristopher Cárdenas Cruz*. Email: dr.cristophercardenascruz@gmail.com

Introduction

In reconstructive surgery, excellence relies not solely on technical skill but also demands continuous mentorship, academic discipline, exposure to a range of problem-solving strategies, and the ability to observe how the world’s finest surgeons transform their patients’ lives.¹ Chang Gung Memorial Hospital (CGMH) is one of the global epicenters of reconstructive surgery. The team, guided by exemplary figures such as Professor Fu-Chan Wei, has set international standards in various disciplines of microsurgery.²

My experience at CGMH not only expanded my knowledge but also redefined my vision of reconstructive surgery and my future as a surgeon.

When I arrived, the humid air of Linkou greeted me, along with a language I did not understand and the certainty that I was on the verge of entering the heart of global microsurgery. When I walked through the corridors for the first time, I wore a white coat with a combination of excitement and humility. I was not only seeking to learn new techniques but also to become a better version of myself.

My first day at the hospital was enlightening. I approached Professor Fu-Chan Wei, a living legend in reconstructive microsurgery, with caution and respect, to ask permission to observe his surgery. He looked up, smiled with serenity, and said:

“Operating room doors are always open to everyone.”

At that instant, I understood the essence of CGMH: humility, generosity in teaching, and a genuine commitment to elevating the next generation of surgeons.

The Surgical Culture of Chang Gung: An Ecosystem Where Surgeons Flourish

Beyond surgical volume, what distinguishes CGMH is its tradition of mentorship. Every surgery begins in the consultation room with an in-depth case discussion, reconstructive algorithms, and updated evidence. In the operating room, chaos does not exist—only precision, focus, and absolute respect for the patient.

That same day, I witnessed something I had never seen before: Dr. Tommy Nai-Jen Chang operating with a surgical robot during a robotic-

assisted microsurgical sympathetic trunk reconstruction (STR) via nerve graft, a technique pioneered at CGMH.³ The coordination between advanced technology, anatomy, and clinical judgment was harmonious, and I knew this observership would change my professional life.

Professor Jung-Ju Huang became one of my most meaningful references. Her ability to balance oncologic safety, aesthetics, and humanity in breast reconstruction changed my notion of surgical excellence. Each of her patients reminded me that even the most sophisticated technique is meaningless without sensitivity and purpose.

Watching the team operate, I understood that excellence is not an isolated act but a habit, one cultivated with discipline, compassion, and absolute respect for the patient.

Some things are learned in front of a microscope, while other things can only be learned by observing giants—or, as the metaphor goes, “*On the shoulders of giants.*”

I arrived at CGMH with high expectations and a deep desire to learn. However, nothing prepared me for the magnitude of what I would encounter: the accuracy of every movement, the calm of the surgical team, the depth of their preoperative discussions, and the extraordinary volume of complex cases.

During my rotation, I had the privilege of participating in services encompassing microsurgery, breast reconstruction, head and neck surgery, peripheral nerve surgery, and extremity reconstruction. I witnessed firsthand the work of world-renowned masters, including Prof. Fu-Chan Wei in head and neck reconstruction, Prof. Chung-Kan Tsao in cervicofacial and esophageal reconstruction, Prof. Jung-Ju Huang in breast reconstruction and lymphedema surgery, Dr. Tommy Nai-Jen Chang in facial paralysis and brachial plexus surgery, Dr. Johnny Chuieng-Yi Lu in peripheral nerve reconstruction, and Dr. Jerry CK Lin in cranio-cervical and nerve reconstruction. Over the course of the rotation, I observed more than 50 major surgeries in a center where the weekly surgical volume easily exceeds 30 procedures. Among the most memorable cases were lower extremity reconstruction, pharyngolaryngeal and complex head and neck reconstruction, facial reanimation using functional flaps, corneal neurotization, robotic breast reconstruction, robotic-assisted sympathetic nerve

reconstruction, and advanced lymphedema surgery, including supermicrosurgery.

Each surgery began with a comprehensive academic discussion, incorporating reconstructive algorithms and a review of recent literature. Inside the operating room, movements under the microscope carried an almost philosophical dimension—marked by precision, calmness, and deliberate intention. The environment at Chang Gung is quiet, respectful, and deeply purposeful. Residents move with composure, neither hurried nor idle; fellows engage in discussions about research articles as naturally as everyday conversation; and professors guide, correct, and mentor without ever humiliating. It is an ecosystem thoughtfully designed to enable growth, mastery, and collective excellence.

Academic Activities: Where Knowledge Expands

My stay coincided with Chang Gung Micro 2025, an intensive academic event featuring 12 live surgeries, including robotic reconstruction and supermicrosurgical techniques.

During the congress, I also participated in advanced microsurgical training, ranging from practice on grapes and synthetic vessels to precision training such as suturing a human hair.

In my first week, my mentor, Dr. Tommy Nai-Jen Chang, invited me to serve as a panelist in a global webinar on microsurgical training, alongside Dr. Luca Patanè of Italy and Dr. Rushil Dang of the United States. This was a deeply meaningful moment for me.

The weekly classes further enriched the experience. One of the most memorable lectures was delivered by Dr. Kevin Chung on academic mentorship, during which he stated:

“When a flower does not bloom, you fix the environment, not the flower.”

When I think about the adverse training conditions in many centers, this quote attributed to the Dutch inspirational speaker, Alexander Den Heijer, resonates profoundly with me.

Personal Thoughts: What Technique Cannot Explain

To speak of Chang Gung is to speak of transformation. I did not only learn from the professors; I learned from my peers, from their cultures, their accents, their stories.

I met colleagues from Turkey, the Philippines, the United Kingdom, Italy, Pakistan, Russia, India, Argentina, Slovenia, Canada, and Myanmar. Dr. Hussan Birkhez Shami and Dr. Htet Lin became close colleagues and friends along the journey. With them, I shared surgeries, doubts, late-night coffees, and conversations that widened my cultural and human horizons. Everyone I met showed me something: a technique, a philosophy, a story, a dream.

And I understood that microsurgery is far more than a specialty; it is a way of seeing the world with detail, patience, and commitment. A surgeon is shaped as much in the mind as under the microscope. And that technical excellence without humanity will never be enough.

Impact and Future Projection

Within resource-limited contexts, reconstruction can sometimes seem insurmountable. Chang Gung showed me the opposite: there is always something more to offer before abandoning a reconstructive possibility, and a reconstructive surgeon must develop this aforementioned thought process.

The surgeon must remain calm during surgery and must polish their talent with discipline. However, a supportive work culture is essential to reach excellence, which may not emerge from isolated talent. This observership strengthened my desire to pursue an international fellowship, document my cases, publish rigorously, and bring the global vision I have acquired to Mexico. Above all, it revealed with clarity the kind of surgeon and the kind of human being I aspire to become.

Conclusion

An observership at Chang Gung Microsurgery may be highly valuable for anyone aspiring to become a microsurgeon. This is a time when one not only learns techniques but also humanity, patience, excellence, and a global vision.

Declarations

Conflict of Interest: The author declares no conflict of interest.

Funding: No external funding was received.

Author Contributions: The author solely contributed to conceptualization, writing, and revision of the manuscript.

Ethical Approval: Not applicable.

AI Disclosure: No artificial intelligence tools were used in the preparation of this manuscript.

References

1. Bhattacharya S, Bhattacharya K, Bhattacharya N. Surgical mentorship in the era of artificial intelligence. *Indian J Surg.* 2025;87:989–991. doi: 10.1007/s12262-024-04252-1.
2. Sun MMG, Williams JG. The revolution of reconstructive microsurgery: Dr Fu Chan Wei and the Chang Gung Memorial Hospital. *Dalhousie Med J.* 2021;47(2). doi: 10.15273/dmj.Vol47No2.11023.
3. Chen LW, Chao YK, Lee CP, Cheng C, Chang KH, Ilias A, et al. First-in-human application of robotic vascularized intercostal nerve grafts for thoracic sympathetic trunk reconstruction: a technical innovation. *BMC Surg.* 2025;25(1):496. doi: 10.1186/s12893-025-03231-x.