

Tokyo Women's Medical University, Adachi Medical Center
Neurosurgery department
Epilepsy Surgery Fellowship Program

Name: Tawasul Ahmad

Country: Sudan

Duration of fellowship: 3 months (April - June 2025)



Since my childhood, I have harbored a deep aspiration to study in Japan, driven by my admiration for the country's remarkable culture of productivity, punctuality, commitment, and respect. After completing my neurosurgery training, I began actively seeking fellowship opportunities in epilepsy surgery in Japan. Through my research, I found the chance of WFNS in the TWMU Adachi Medical Center under Professor Kubota. His reputation in the field of epilepsy surgery, experience, his commitment to the area, and his active work encourage me to apply confidently. Because this field of neurosurgery is deficient in my country, and

we have a lot of patients who are misdiagnosed and suffering for a very long time. And since epilepsy occurs in children and the young age group, it represents a major burden on the community.

Aims of the fellowship:

My primary goal is to specialize in functional and epilepsy neurosurgery.

1. In this period, I was planning to gain the essential knowledge about the techniques and skills in epilepsy surgery, EEG reading, pre-operative planning of patients and post-operative care, and analysis of EEG. (successfully done)
2. To correct all the wrong concepts, techniques, and attitudes that I used to have in other fields of neurosurgery. (successfully done)
3. To expose myself to a well-equipped environment, well well-established system, and research work. (successfully done)
4. To gain basic knowledge about the techniques and skills in vascular anastomosis.
5. To solidify my belief that teamwork is the best for a better outcome. (successfully done)
6. To perches some of the basic instruments to help me during surgery in my hometown. (successfully done)
7. Found a fund or donation for my department. For the equipment that I cannot afford, like Mayfield and a headrest. (Still searching)
8. Create a contact with a different company for future collaborations. (successfully done) at YOKOHAMA exhibitions.
9. To build my ability in leadership ability and encourage the young doctors. (successfully done)
10. To have an idea about how to establish an epilepsy center in Sudan.

After three months of training here, I have discovered that the experience has exceeded my expectations. I have not only advanced in my technical skills but have also grown in various aspects of my personal and professional life that I had not anticipated.

Activities:

The center offers various activities. Each has its valuable purposes:

1. Morning meetings are held from 8:00-8:45 A.M. (Monday – Thursday) to discuss cases, covering all new admissions, preoperative and postoperative cases, the best surgical option for each one, and radiological findings. A valuable addition was the instructional radiological session for the new resident, where they acquired skills in reading a CT scan and interpreting its findings
2. ICU and Floor rounds following the meeting (Monday – Wednesday).
3. Journal club is scheduled from 12:00 to 12:30 P.M. on Tuesday. Two papers were presented by two members of the department and discussed, also many companies presented their new products.
4. The pathology meeting occurs at 5:00 P.M. on Tuesday. Once per month with Professor Shibuya.
5. The research conference is held at 9:00 A.M. every Friday with Professor Kubota and Dr. Chernov, where we discuss our progress. I acquired the capability to adopt a research-oriented mindset and to effectively convert these intellectual insights into a formal scientific paper.
6. Operation:
 - Elective list: from Tuesday to Friday. (Spine, endovascular, oncology, epilepsy cases, vascular, endoscopy and others)
 - Emergency OT. daily.

Epilepsy surgery experience:

Throughout my fellowship program, I was fortunate to learn about epilepsy, from basic concepts to surgical procedures:

- Observe epilepsy patients.
- Pre-operative diagnostic procedures for epilepsy, including the Wada test.
- Learn to read EEG.

- Scrub in for the surgical procedure for epilepsy, anterior temporal lobectomy, and the stereoelectroencephalography (SEEG) implantation procedure using a Robotic Stereotactic Assistance (ROSA).

Personal development:

1. Developing the ability to live independently while effectively managing and completing all necessary tasks and responsibilities.
2. Improve my time management skills.
3. Enhancing my capacity to work on multiple tasks simultaneously, such as assisting in surgeries, conducting research, performing anastomoses, attending social activities, and reviewing clinical cases.
4. Observing and learning from Professor Kubota's leadership style has been instrumental in improving my management skills.
5. Strengthening my ability to remain composed and maintain control, even in the most challenging and high-pressure situations.

Surgical development:

Knowledge:	Pathology zoom meeting:	1- It introduced me to many of the pioneers in the field of neuropathology. How to discuss the cases and the importance of MDT.
	Daily conference and journal club:	1- How to discuss patient case pre and post operative. 2- How to be a leader and manage the discussion and involve all to participate.
	Research conference:	1- How to think like a researcher and how to create your research and how to present it.
Surgical skills:	Corrected wrong skills:	1- ATL operative techniques. 2- Robotic SEEG 3- Planning of electrodes implantation. 4- Bypass training. 5- Haemostasias techniques 6- Use the small mini-craniotomy (I used to do a wide craniotomy even if the lesion is small)

Workshops:

I attended two endovascular workshops in the department during this period.

Meetings and conferences:

- 1- The 45th Annual Meeting of The Japanese Congress of Neurological Surgeons in Yokohama Pacific Hall. May 16th -17th, 2025.
- 2- Expert meeting on Lennox-Gastaut syndrome in Shinjuku, Tokyo, 24th June.

Research papers:

	Topic	Type of article	Journal
1	Complications of the Wada test: Report of Two Cases of Posterior Circulation Stroke After the Wada test.	Case Report	Stereotactic and Functional Neurosurgery
2	The Simplified Wada Test for Evaluation of Language and Memory Functions:	Technical Report, Video Article.	Surgical Neurology International
3	Analysis of the Hemispheric Dominance of Language and Memory Functions in Patients with Temporal Lobe Epilepsy	Original Article	Not decided yet

Social activities:

I had the chance to explore Tokyo and be exposed to the Japanese culture. I visited Mt. Takao, Diver City Tokyo Plaza, Odaiba, Shinjuku, Disney Land, Nishiarai, Ueno Park, Kawagoe, and Umihotaru.



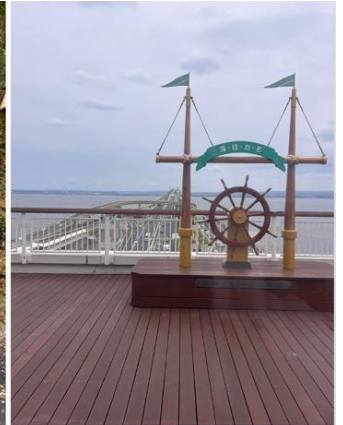
Ueno Park



Kawagoe



Mount Takao



Umihotaru



Diver City Tokyo
Plaza, Odaiba



Shinjuku
Nishiarai
Disney Land



Last but not least, I would like to thank Professor Kubota for his generosity, compassion, and understanding. I would like to thank Dr. Chernov for his kind assistance, support, and guidance during this time, as well as his patience and concern. For all faculty of the department for their assistance and for answering to all of my questions in a very modest manner. The residents for their assistance with the hospital system. Lastly, I would like to thank my colleague Dr. Xinli You from Malaysia for everything; her presence has contributed to so many areas of my life, as well as Dr. Inazuka for her kind hospitality and for providing me with the best experience in Japan, the Japanese people, culture, and food.

Dr. Tawasul Ahmad
Neurosurgery, Sudan.
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