

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2019 Winter)**

**Reports of the Participants in the Traveling Fellowship program supported by the
Japanese Association of Rehabilitation Medicine (JARM)**

Japanese Physicians supported by the Traveling Fellowship program (2019)

Hiroaki Fujimoto, M.D., Ph.D.

Neurorehabilitation Research Institute, Morinomiya Hospital, Osaka, Japan

Conference:

- ① American Society of Neurorehabilitation (ASNR) 2019 Annual Meeting
- ② Society for Neuroscience's 49th annual meeting

Presentation Title:

- ① A robot for split-force body weight-supported treadmill training modulates gait patterns of patients with hemiparetic stroke: case studies
- ② A novel robot for separate body weight supported treadmill training to modulate gait patterns in patients with hemiparetic stroke

Report:

I attended the American Society of Neurorehabilitation Annual Meeting 2019 (ASNR; October 16–18) and the 49th Annual Meeting of the Society for Neuroscience (SfN; October 19–23) in Chicago and presented my research. The ASNR annual meeting was held as a satellite event of the SfN, with around 300 attendees. In the final session, the participants actively discussed the theme, “Controversies in Neurorehabilitation Session-Proportional Recovery: Maxim or Myth,” for 2 hours, where Dr. John Krakauer was the moderator. At the poster session, I presented the results of our collaborative research at Morinomiya Hospital with Advanced Telecommunications Research Institute International (ATR) regarding a novel split-force body-weight-supported treadmill using pneumatic artificial muscles to modulate the gait patterns of stroke patients with mild hemiparesis. I also had discussions with several world-renowned researchers concerning the study results.

More than 27,000 scientists attended this year’s SfN annual meeting, which is the world’s largest academic conference in the field of neuroscience, although the number of attendees was fewer than those in previous years. My presentation at the conference was similar to the one at the ASNR meeting, with additional cases with moderate hemiparesis. At this conference, I shared ideas with not only researchers in the field of neurorehabilitation but also world-renowned researchers in the field of neuroengineering including Professor Neville Hogan from MIT. After the presentation, endless discussions followed, which made my time there productive and meaningful. From the experiences I

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had at the conference, I realized my desire to continue my research that would contribute to helping many patients. Finally, I thank Dr. Ichiro Miyai for recommending me, the Japanese Association of Rehabilitation Medicine for giving me such a great opportunity.

A Foreign Physician supported by the Traveling Fellowship program

Irma Ruslina Defi, M.D., Ph.D.

Department of Physical Medicine and Rehabilitation, Hasan Sadikin General Hospital - Faculty of Medicine Padjajaran University, Java, Indonesia

Gihan Mohamed Ahmed Omar, M.D., Ph.D.

Rheumatology & Rehabilitation Department, Minia University Hospital, Minya, Egypt

Report:

After fulfillment of the JARM-2019 international Traveling Fellowship, I would like to write my feedback. This is my second time to be selected for this distinguished grant, I had the chance attending the 13th ISPRM-Kobe, Japan, and then I had my second visit to Fujita Health University Hospital, Rehabilitation Department. After five years I could see how tremendously expansion of the department: outpatient's area, inpatients wards and whole activities.

Prof. Saitoh's dedication and passion for Rehabilitation medicine with his team could be elicited through and has Fujita Rehabilitation Department at best rank among educational as well as rehab service.

The department has a unique work in dysphagia and swallowing disorders, nevertheless robotic innovation and gait-mobility training.

I had the chance to meet doctors from other universities, China, France, Brazil and Thailand, who had a visit at the same time discussing collaboration with Fujita Rehabilitation Department.

Although at home we still are not able to have similar technology, by sharing knowledge and by having those visitations we can work our skills and modifications to meet our community needs and for the sake of our patients.

Finally, I would like to thank the JARM and Prof. Saitoh, for giving me the chance for this fruitful visit. The support helped me in part along that visit as well.

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I had recommended it for my colleagues and, actually, a colleague from the other university granted the scholarship this year as well.

Japan work not only helped Japanese patients but it helps patients all over the world by conveying the message

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Shereen Ismail Ahmed Fawaz, M.D., Ph.D.

Department of Physical Medicine, Rheumatology and Rehabilitation, Ain Shams University, Cairo, Egypt

Report:

Visiting Tohoku University was both a pleasure and an honor. The two weeks training period helped improve my understanding of the many facilities that should be offered by the rehabilitation physician.

The visit had a scheduled program that included all the subspecialties that I was hoping to focus on and many others. It included a series of lectures by Professor Dr. Izumi, explaining the various uses of non-invasive brain stimulation and peripheral magnetic stimulation in rehabilitation. He also provided me with sessions to explain and discuss in more detail other applications, mechanisms and the neurophysiological basis underlying neural plasticity. All these helped improve immensely my understanding of this field and how to apply it.

The second focus of my stay was to learn more about swallowing disorders. Thanks to the help and collaboration between the different departments in Tohoku University, I attended clinical assessments, both indirect laryngoscopy and video fluoroscopy in the head and neck surgery department. I also attended their weekly conferences with Dr. Kato. I also attended many applied rehabilitation sessions with dysphagia patients, both in the outpatient clinics and in the inpatient ward that covered the various disorders causing dysphagia and their detailed assessment and rehabilitation protocols. It also included a series of training lectures, by their speech therapist Iwasaki san and Dr. Izumiyama. All this was of great asset to me to improve my rehabilitation skills in this field.

The visit also included attending clinics with Dr. Furusawa and many other physicians, which was followed by a series of discussions, which helped enhance my knowledge in the different fields of rehabilitation as pulmonary and geriatric rehab, also management of cases with lymphatic and circulatory insufficiency. In addition, attending cases with the Occupational therapists and Physiotherapists and learning from

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them how to use the various equipment and techniques in training their patients, which helped me a lot improve my skills.

The last day of my training program was a visit, with Dr. Okuyama, to the Tsunami disaster site which was a great, very important, experience to me. We also visited the Disaster Medical Institute department in Tohoku University, a unique and very enlightening experience for me.

I am truly grateful to all those who worked hard to prepare this useful educational program, which turned into a highly beneficial experience, which helped raise my medical skills.

Anne M. Kuwabara, M.D., Ph.D.

Stanford University, School of Medicine Resident Physician,
Physical Medicine and Rehabilitation, California, U.S.A.

Report:

Thank you for your support for attending the JARM 2019 conference through the Traveling Fellowship award during my residency training at Stanford University. It was an honor to be able to present my research on dantrolene and dysphagia to international colleagues in the English oral presentation session. It was an enriching experience meeting the inspirational community of clinicians and scientists, learning about the latest advances in rehabilitation at the conference, and seeing them in practice at Fujita Health University (e.g. Welwalk and 3D Swallowing CT). Dr. Kagaya and Dr. Saitoh were exceptional hosts and role model clinicians. It was an experience that I will always cherish and share with others in my program and field. I look forward to continuing to contribute to the field through a career in academic rehabilitation medicine after residency and for future collaborations with my Japanese colleagues.