

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

**Reports of the Participants in Traveling Fellowship program (2018) supported by
the Japanese Association of Rehabilitation Medicine (JARM)**

Japanese Physicians supported by the Traveling Fellowship program (2018)

1) Yoshihiro Yoshimura, M.D., Ph.D.

Department of Rehabilitation Medicine, Kumamoto Rehabilitation Medicine,
Kumamoto, Japan

Conference: 12th International Society of Physical Rehabilitation Medicine (ISPRM) World Congress, July 8 - July 12, Paris, France

Presentation Title: Systemic inflammation in recovery stage of stroke: its association with sarcopenia and poor functional rehabilitation outcomes.

Report: ISPRM 2018, which was co-hosted by France and Belgium, was held in Paris, France, from July 8 to 12, 2018. More than 4000 participants from all over the world were present, making the congress very successful. Approximately 250 people from Japan participated, with Japan having the second highest delegation at the conference, after France. I was pleasantly surprised that many of the participants from Asia were in fact from Japan.

This was my first time participating in the International Rehabilitation Congress and, in fact, I had been looking forward to attending ISPRM 2018 for a long time. My impression of ISPRM was one of pleasant ‘chaos,’ with the academic themes straddling diverse areas of research and practice. I was impressed with the prevalence of advanced devices, including robots, being exhibited and discussed. Moreover, the high quality of the sessions on frailty, geriatrics and internal disorders increased my awareness of the wide range of rehabilitation medicine.

I presented my work as part of the “PRM and Elderly” session, specifically in theme I regarding the “Relationship between systemic chronic inflammation and sarcopenia, and their negative impact on functional recovery among post-stroke older adults”. The format was a 10-min oral presentation, followed by a 3-min question and answer period. Although I struggled with my English, after the introduction, my presentation went smoothly. I was able to deliver the content of my presentation on time, and was able to respond to questions. Overall, my oral presentation at the international conference in Paris was quite successful. My next step will be to publish the manuscript of my study and, in doing so, continue to advance our knowledge regarding the management of age-related

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

sarcopenia in rehabilitation. I also am planning to continue to present at scientific conferences.

Coming back to my initial point of the large Japanese delegation at the conference, I was concerned that only few had a podium presentation, with the majority presenting their research in poster format. The real pleasure of participating in an international conference is the exchange of ideas with researchers from overseas institutions who have little opportunity to exchange knowledge and ideas with us. The English language remains a barrier for Japanese researchers and clinicians. However, we must come to the realization that the ability to communicate in English is indispensable in an international forum and, therefore, achieving a level of proficiency in English is really necessary for all researchers and medical professionals. My hope is that there will be an increase in the number of oral presentation next year, at ISPRM 2019, which will be held in Kobe, Japan. I am convinced that increased oral presentation as well as participation in ISPRM, as well as other international conferences, will lead to the advancement of rehabilitation medicine in Japan.

2) Yukiyo Shimizu, M.D., Ph.D.

Department of Rehabilitation Medicine, University of Tsukuba Hospital, Ibaraki, Japan

Conference: 12th International Society of Physical Rehabilitation Medicine (ISPRM) World Congress, July 8 - July 12, Paris, France

Presentation Title:

- 1) Heterotopic triggered HAL method for patients with complete quadriplegia (oral presentation)
- 2) User-oriented novel electric upper limb prosthesis with flexible sensors for detecting skin deformation (Poster tours)
- 3) Voluntary elbow extension-flexion training using single joint hybrid assistive limb (HAL) for spastic cerebral palsy patients (e-Poster)
- 4) Leg Exercise Apparatus (LEX) for venous thromboembolism prophylaxis is feasible for patients who underwent total joint arthroplasty of the lower extremities (e-Poster)

Report: I attended the 12th World Congress of the International Society of Physical and Rehabilitation Medicine (ISPRM 2018), which was held in Paris from July 8th to 12th, with the assistance of Traveling Fellowship Program of the Japanese Association of Rehabilitation Medicine (JARM). Next year, the conference will be held in Kobe, therefore there were many Japanese participants.

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

I made an oral presentation, entitled “Hetrotopic triggered HAL method for patients with complete quadriplegia”, which was about gait training triggered by upper limb motion using HAL for patients with complete paraplegia. I also made a presentation in poster tour, entitled “User-oriented novel electric upper limb prosthesis with flexible sensors for detecting skin deformation”.

After oral presentation, Dr. Marta Imamura, from Brazil approached me, and told that it was amazing that spinal cord injured patients can walk like my presentation video and said to me “congratulations!”. I was deeply impressed. After poster tour, the chairwoman from France asked me whether I myself would be involved in the patients’ training to familiarize with our prosthesis, and how long it would take to acquire the ability to use the prosthesis in ADL. I answered that I would perform training with therapists as multidisciplinary team, and that I consider it might take shorter than some existent myoelectric hands.

In addition, I felt that there is great diversity from country to country in rehabilitation, because medical rehabilitation is about ADL and QOL, regarding life itself. That’s why I was interested in the world congress of rehabilitation. I attended the meeting with an occupational therapist, an engineer, and a medical researcher and I also appreciated that we performed team rehabilitation in daily medical practice.

Between intervals of the conference, I saw beautiful Paris streets. I was surprised at the scenery remained for several hundred years. Walking down beautiful stone pavements, I also think that it would be difficult to sightsee using wheelchairs. I think it is difficult that universal design and historical buildings coexist at the same time.

Finally, I would like to express my sincere gratitude to the members of the JARM for giving me the great opportunity, as well as the members of Department of Rehabilitation Medicine, University of Tsukuba Hospital.

3) Ippei Kitade, PT, PhD

Division of Rehabilitation Medicine, University of Fukui Hospital, Fukui , Japan

Conference: 6th Asia-Oceania Conference of Physical & Rehabilitation Medicine, November 21 - 24, Auckland, New Zealand

Presentation Title: The trunk function recovery for patients with acute cervical spinal cord injury without major bone injury

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

4) Mitsuhiro Ochi, M.D., Ph.D.

Department of Rehabilitation Medicine University of Occupational and Environmental Health(UOEH), School of Medicine, Fukuoka, Japan

Conference: 12th International Society of Physical Rehabilitation Medicine (ISPRM)World Congress, July 8 - July 12, Paris, France

Presentation Title: Study on the standardization of the evaluation method for rehabilitation robots

Report: I received assistance for overseas training from Japanese Association of Rehabilitation Medicine (JARM) and participated in the 12th International Society of Physical & Rehabilitation Medicine (ISPRM) World Congress held in Paris, France in July 2018.

The first overseas conference that I have participated was the Annual Conference of Chinese Rehabilitation Medical Society. It was held at a very lavish venue and I was impressed that there were many participants at that time. But, for this time, I was more impressed by the fact that there were participants from more than 50 countries, not to mention the large scale of the party. The congress made new record as the participants exceeded 4000 people, therefore, I realized that rehabilitation medicine attracted people in many countries. I realized the importance of rehabilitation medicine.

I made a presentation on e-poster on research to standardize the evaluation method of robot rehabilitation. Many advanced machines and robots were lined up in the company exhibition. It is hoped that future robotic rehabilitation will be further advanced and importance in rehabilitation medicine will increase.

Also, I was able to interact with many doctors even in a meeting place. It was a very valuable opportunity to be able to deepen fellowship with not only the doctors participating from Japan but also the prominent doctors including Mr. Alain Yelnik, who served as the chairman of the congress.

I enjoyed the cityscape and atmosphere of Paris during the vacant time. It was a great stimulation to see historical buildings and museums.

In this overseas training, I gained a lot of experience which I cannot experience in Japan. I would like to thank JARM for giving me such opportunities and I would like to make efforts to make this experience even more useful for future clinical and research.

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

A Foreign Physician supported by the Traveling Fellowship program (2018)

Courtenay Stewart, M.D., Ph.D.

Division of Physical Medicine and Rehabilitation, Department of Orthopaedic Surgery, Stanford University, USA

Report: It was an honor to spend a week at Fujita Health University from May 7-11th. My time there was eye-opening, inspiring and educational. I identified numerous areas where our practices in California can be improved by observing the FHUR process, the top three include:

- 1) Multidisciplinary dysphagia rounds with dentists, swallow RNs, SLPs, and physiatrists along with access to CT scans and a greater variety of modified food items
- 2) Impressive outpatient rehabilitation facilities with easily accessible gait labs and lateral exoskeletons
- 3) Integrating the role of rehabilitation engineer in the evaluation and creation of needs-based technology, in particular for the aging population at home

I can't thank the doctors at FHUR enough for their time, their expertise and their commitment to their patients. I will never forget their hospitality and willingness to share with me and hope to return in the future. I also want to thank the JARM for making this educational opportunity available.

Sri Mardjiati Mei Wulan, M.D., Ph.D.

Department of Physical Medicine and Rehabilitation School of Medicine of Universitas Airlangga/Dr. Soetomo Teaching Hospital

Report: A Japanese Association of Rehabilitation Medicine (JARM) exchange travelling fellowship is a project sponsored by JARM for participants who have submitted applications as prospective fellowship participants. Fellowship participants were invited by JARM to participate in the activities held by JARM.

The object of this report is to outline in broad terms the information on activities during a visit to Japan, whether activities held by JARM, in Hiroshima University hospital, visiting medical rehabilitation sites for children and activities of JRAT.

Attended the annual scientific meeting by JARM which was held in Fukuoka June 29-30, 2018. Lots of new information about robotics for medical rehabilitation services and the research about it and also the other topics.

**The Japanese Association of Rehabilitation Medicine (JARM)
Annual Report (2018 Winter)**

Observation of medical rehabilitation services at Hiroshima University Hospital (HUH) and the other medical rehabilitation centers under the guidance of Prof. Kimura, Dr. Mikami and the other staffs. The medical rehabilitation services using sophisticated tools. At HUH and other centers not only learn science but also learn discipline culture with high commitment.

Participate in activities held by JRAT on July 19, 2018 in disaster areas with Dr. Mikami, Mrs. Kawamura, Miss Eiko Kurose and other professions in Sakamachi. The activity of physiatrists to educate the victims of disaster to conduct the exercise for preventing deep vein thrombosis and invite them to do the exercise.

Suggestions for the next program to conduct joint research and joint publications.