シンポジウム

4th World Centenarian Initiative
第2回 弘前医療技術イノベーションシンポジウム
― 寝たきり・車椅子 0（ゼロ） 社会を目指して ―

代表世話人：石橋　恭之（弘前大学大学院医学研究科整形外科学講座）
主　催：弘前大学大学院医学研究科整形外科学講座
　　医療法人整友会弘前記念病院
共　催：ひろさきLI株式会社（株式会社町田アンド町田商会）
　　公益財団法人 先端医療振興財団 臨床研究情報センター
後　援：青森県，弘前市，公益社団法人青森県医師会，一般社団法人弘前市医師会，厚生労働省
（2016年5月1日㈰　於：弘前大学医学部コミュニケーションセンター）

4th World Centenarian Initiative
2nd Medical Technological Innovation Symposium in Hirosaki
― Toward a society of zero bedridden & zero wheelchair ―

Representative organizer：Yasuyuki Ishibashi (Department of Orthopaedic Surgery, Hirosaki University Graduate School of Medicine)
Organized by：Department of Orthopaedic Surgery, Hirosaki University Graduate School of Medicine
Hirosaki Memorial Hospital
Co-organized by：Hirosaki Life science Innovation, Inc. (Machida and Machida Corporate)
Translational Research Informatics Center, Foundation for Biomedical Research and Innovation
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(Sunday, May 1, 2016, Communication Center of Hirosaki University School of Medicine, Aomori)

Abstract

The world population is in the midst of ever changing revolutions in the fields of genomic and stem cells medicine; information technology; and bionics. These revolutions are transforming our understanding and the very foundations of medicine and health care. In this context and through this symposium our organization aims to inform and achieve for our compatriots 100 years (centenarian) of active life, that is, to achieve an active centenarian society taking full advantage of these significant innovations.

The symposium invited the researchers who are engaged in developing the neuro-rehabilitation using the Hybrid Assistive Limb® (HAL®) for spinal cord injury, stroke and muscular disease from Japan and Germany, to elaborate progress made so far in the new advanced therapy methods. The speakers introduced the new treatment efficiency and activation method through cybernetic (robotic) rehabilitation developed in Japan by Japanese scientists.

Recent innovations provide access more easily to neuro rehabilitation therapy which memorize walking patterns of an individual body (brain and neuro) and enhance neuro networks by repeating walking by HAL®.

These innovations will make significant contributions to overcoming growing needs of appropriate services for Japan's super-aging society, spinal cord injury and stroke patient recovery and decreasing the family care and medical expenses.

In addition, the symposium provided an opportunity to inform the participants about the efficacy of neuro-rehabilitations especially for using HAL®, how to expand it and realize a zero bedridden society.

Key words

Hybrid Assistive Limb® (HAL®), neuro rehabilitation, spinal cord injury, stroke, muscular disease

Rinsho Hyoka (*Clinical Evaluation*). 2017；44：737-83.