

Sportology - an emerging field

Sportology, a field pioneered by **PROFESSOR HIDEOKI OGAWA, CEO OF JUNTENDO UNIVERSITY** in Tokyo, integrates neuroscience, philosophy, and sociology to examine the links between playing or watching sports and health benefits.

The concept of sportology was developed by Juntendo University 30 years ago to provide a scientific framework that could encompass the different areas of sports science. It's a relatively uncharted field, and discoveries in sportology could have long-term benefits for society, including advances in disease prevention and medical treatments.

Before 2011, more than 110 academic medical associations had been established in Japan. However, none of these were based on ideas that originated in Japan.

Recognizing Sportology's potential, Juntendo University worked to build wider interest, organizing the first, second, and third Sportology Pre-congresses. In 2011, the creation of the International Academy of Sportology was made possible through the leadership of Professor Ogawa, CEO of Juntendo University (bottom right, at centre). In March of the same year, Juntendo hosted the first Congress of the International Academy of Sportology. It is the first example of a Japanese association taking a concept created in Japan and presenting the idea to the world in the form

of an academic conference.

The Inaugural Congress International Academy of Sportology was a preview symposium of the 28th General Assembly of the Japanese Medical Congress, organized by the Japanese Association of Medical Sciences (JAMS). More than 500 experts from all over the world attended.

Tragically, within a week of the congress, Japan was hit by the 2011 earthquake and tsunami. The devastation forced the JAMS to postpone the General Assembly, originally scheduled for April 2011. The sportology congress was lucky to avoid the disaster, however the destruction left people throughout Japan distraught. Sports, however, helped improve the outlook of many people, giving the Japanese population a sense of hope.

IS BRAIN FUNCTION ENHANCED BY WATCHING SPORT?

Roughly four months after the earthquake, the Japanese women's soccer team won the FIFA World Cup — a victory that,



sportologists argue, gave many people in Japan the strength and courage to move forward. Sports have a power, both for those who participate and those who watch, and researchers argue that it's important to identify what underlies this.

Through the use of functional magnetic resonance imaging scans, Juntendo University's researchers are trying to decipher what happens in the brain when we watch sports. They're examining brain function, looking for ways to differentiate the effects of watching sports from other stimulation. Is brain function enhanced by watching sport? Does it activate the same brain functions as listening to music? Such research will provide the scientific grounding to better describe the experience of billions of people worldwide.

Juntendo University's unique strengths in medicine and health and sports science gives them the opportunity to be a leader in this field.

Japan's largest university hospital network

Celebrating its 180th anniversary next year, Juntendo University is the oldest school of European-style medicine in Japan and Juntendo University Hospital was the country's first private hospital.

These days composed of six affiliated hospitals, with more than 3,400 in-patient beds and on average 3 million outpatients annually, the Juntendo University Hospital network is the largest network of its kind in Japan. Patients from all over the country and throughout the world are referred to these hospitals for



advanced medical treatment. Doctors specialize in a number of rare medical conditions and are able to access large clinical databases to pursue their clinical research projects.

In commemoration of the university's anniversary, Juntendo is building a new research facility (top right). The planned façade will be a replica of the original medical school and hospital buildings during the Meiji period (1868–1912) and the center will house the university's research projects, including those of the Sportology Center and Intractable Disease Research Center.

Juntendo University is committed to research at an international standard. A cohort of international researchers within the university and collaborations with partner institutions around the world

allow Juntendo to continue to pursue cutting-edge research of global significance.

The university is also a longtime leader in developing innovative areas that might help to improve society. Juntendo has stood at the site of the Hongo-Ochanomizu Main Campus in the center of Tokyo, Japan, since 1875 (left, pictured in 2016). Originally a medical school, the university now has five faculties: medicine, health and sports science, health care and nursing, health science and nursing, and international liberal arts, the last founded to further the university's international spirit in 2015. The current dean is Professor Eiki Kominami (above, at left). Each faculty has its roots in the medical school and is founded on the idea of improving society's overall health. The Faculty of Health and

Sports Science, for example, was established more than 60 years ago and draws upon Juntendo's impressive medical capabilities to pursue world-class research into athletes, and sports- and health-related topics.

The sportology congress: bringing international specialists together

The Third Congress of the International Academy of Sportology, due to be held in October 2017, will highlight the upcoming 2020 Tokyo Olympic and Paralympics, with a focus on the latter. It aims to bring international researchers together to discuss how advances in sportology may contribute to a better society.

A number of Olympic-focused collaborative research projects focusing on sports, exercise, and

disease prevention are already underway between Juntendo and organizations with shared interests. One project is being developed in association with the government's Japan Sports Agency (JSA). Led by JSA's inaugural commissioner, Daichi Suzuki (left, at right) — a Juntendo University Faculty of Health and Sports Science alumnus and Olympic gold medalist — this venture will focus on ways to increase sports participation rates in Japan from the current 40–50%, to 65% by 2020. Another project will aim to learn more about the relationship between fitness, strength, and brain function in elderly populations.

Through talking about these initiatives during the Sportology Congress, Juntendo researchers hope to contribute to the legacy of the 2020 Olympic games and to spreading ideas that will make society as a whole both mentally and physically healthier.

Juntendo University acknowledges that the field of sportology and its potential contribution to society are bigger than the university itself. Discoveries will require collaborations between many people with different backgrounds and perspectives. With this in mind, the goal of the third congress is to bring together experts with different backgrounds to generate new connections and discoveries in this exciting, emerging field. ■

