

## Fujihara Seminar 2018 Tokyo Declaration

On the occasion of the 75th Fujihara Seminar "The Cerebellum as a CNS hub - from its evolution to therapeutic strategies" in honor of Prof. Masao Ito held from December 1st to 4th in Tokyo, sixty-two of the leading scientists and clinicians from across the world made the strong case that **cerebellar neuroscience** is crucial to the deeper understanding of brain science and brain health.

The cerebellum is attached to the brainstem, located between the cerebrum and spinal cord. It has very well characterized anatomy and function, and highly intricately arranged connections with all regions of the nervous system. The weight of the cerebellum is only one tenth of that of the whole brain, but it contains 80% of all the neurons in the nervous system. The functions of the cerebellum cover a wide range of important roles including control of balance and posture, coordination of movement, motor learning, and modulation of cognition and emotion.

There is a long and rich history of research into the anatomy, physiology and clinical neurology of the cerebellum, and discoveries using new neuroimaging tools have shed light on its many functions. Rapidly advancing molecular genetic techniques have made it possible to identify the genetic basis of many inherited cerebellar ataxias. Despite all this accumulated knowledge, the field of cerebellar clinical neurology still faces a major challenge. There are almost no available therapies that have been proven to be effective in the prevention, treatment and cure of the millions of patients and families around the world suffering from cerebellar ataxia and other cerebellar disorders.

There is therefore an urgent need to better understand the healthy cerebellum and the mechanisms that lead to cerebellar disease. This will require further intensive study and even stronger collaboration among the international **cerebellar neuroscience** community, together with close partnerships between researchers, physicians, patient organizations and funding agencies. We are gratified by the success of this 75th Fujihara Seminar on the cerebellum, and we hope that it will contribute to even greater success of the research and clinical efforts in the coming years.

December 4<sup>th</sup>, 2018