Yoshihisa Yamano

I received M.D. in 1993 and Ph.D. in 1997 from Kagoshima University, where began researching HTLV-1 and HAM. In 2003, I completed postdoctoral fellowship at the National Institute of Health, USA. I am currently the Professor of Department of Advanced Medical Innovation, and Director of Department of Rare Diseases Research at St. Marianna University School of Medicine, Japan.

More personal version:

Dr. Yoshihisa Yamano is the Professor of Department of Advanced Medical Innovation (from 2016), and Director of Department of Rare Diseases Research (from 2008) at St. Marianna University School of Medicine, Japan. He received M.D. in 1993 and Ph.D. in 1997 from Kagoshima University in Japan, where HTLV-1 is endemic and he began researching HTLV-1 and HTLV-1-associated myelopathy (HAM/TSP). In 2003, he completed postdoctoral fellowship at the National Institute of Health, USA. He is a neurologist who has continued research on clinicalpathophysiology of HAM/TSP and support of HAM/TSP patient advocacy group. From 2007, he has continued to provide a clinical service specialized to HAM/TSP and HTLV-1 carrier at St. Marianna University hospital in Tokyo area of Japan, and established a big biorepository of those patients. Furthermore, to investigate the epidemiological feature of HAM/TSP, he established national HAM/TSP patients' registration system named "HAM-net" by collaborating with patients' group to gather clinical data from and distribute information to patients on a nation-wide scale from 2012, and accumulating the real-world data of HAM/TSP prospectively (*Orphanet Journal of Rare diseases 2016*). Based on these platforms of HAM/TSP research, his research group discovered that in HAM/TSP, HTLV-1 infects mainly the T cells expressing the chemokine receptor CCR4, and the malfunction of infected T cells is important in the pathogenesis of HAM/TSP (*PLoS One 2009, Brain 2013, J Clin Invest 2014*). Additionally, they demonstrated that in HAM/TSP patient-derived cells, the humanized anti-CCR4 antibody has a lethal effect on infected cells, as well as an anti-inflammatory effect; they showed that CCR4 is a useful therapeutic target in HAM/TSP treatment (*J Infect Dis 2015*). Based on these results, from November 2013, they started a phase 1/2a trial of anti-CCR4 antibodies in HAM/TSP treatment, as an investigator-initiated clinical trial. The phase 1/2a trial of the anti-CCR4 antibodies proceeded smoothly; in January 2016, the clinical studies were completed, and a proof of concept of the safety and efficacy of the treatment was obtained. Further, additional investigational studies have demonstrated the prophylactic activity of anti-CCR4 antibody against ATL (*N Engl J Med 2018*). By achieving the abovementioned objectives, the practical application of anti-CCR4 antibody preparations is approaching; the clinical environment surrounding HAM/TSP patients will improve dramatically, and this is expected to lead to the improvement of the quality of life of patients worldwide.