FIGHT MND.

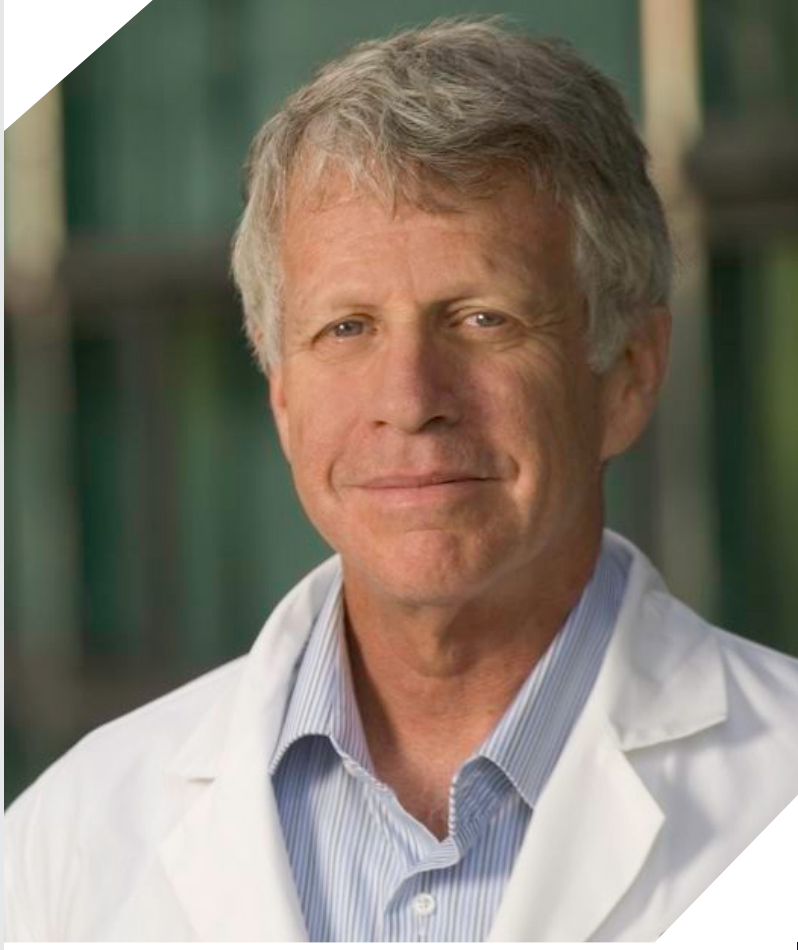
Project

Alpha 5 Beta 1 Integrin as a potential treatment for MND

Research has shown that an immune response contributes to motor neuron death and the onset of MND. Investigators in this project will examine if drugs, called alpha 5 beta 1 integrins, can silence the activity of key players in this immune response – macrophages in the body, and microglia in the brain and nervous system – and delay the progression of MND.

A positive outcome for this study will be to identify the safest and most effective alpha 5 beta 1 integrin candidate to transition to a phase 1 clinical trial for MND patients.

"Hopefully anti-alpha 5 integrin will be transformative in MND, much like anti-alpha 4 integrin antibody (Natalizumab) has been a potent and effective therapy in Multiple sclerosis."



Project Lead

Prof Lawrence Steinman

Stanford University, USA

Prof Lawrence Steinmen says that seeing patients with MND in his work as a neurologist encouraged him to want to create new and effective therapies for people living with this disease.

His research into MND is an extension of his lab's co-discovery of the first monoclonal antibody treatment for Multiple sclerosis in 1992. The discovery of this integrin, alpha 4, assisted with the development of the monoclonal antibody treatment for Multiple sclerosis.

Anti-integrin therapy and MND

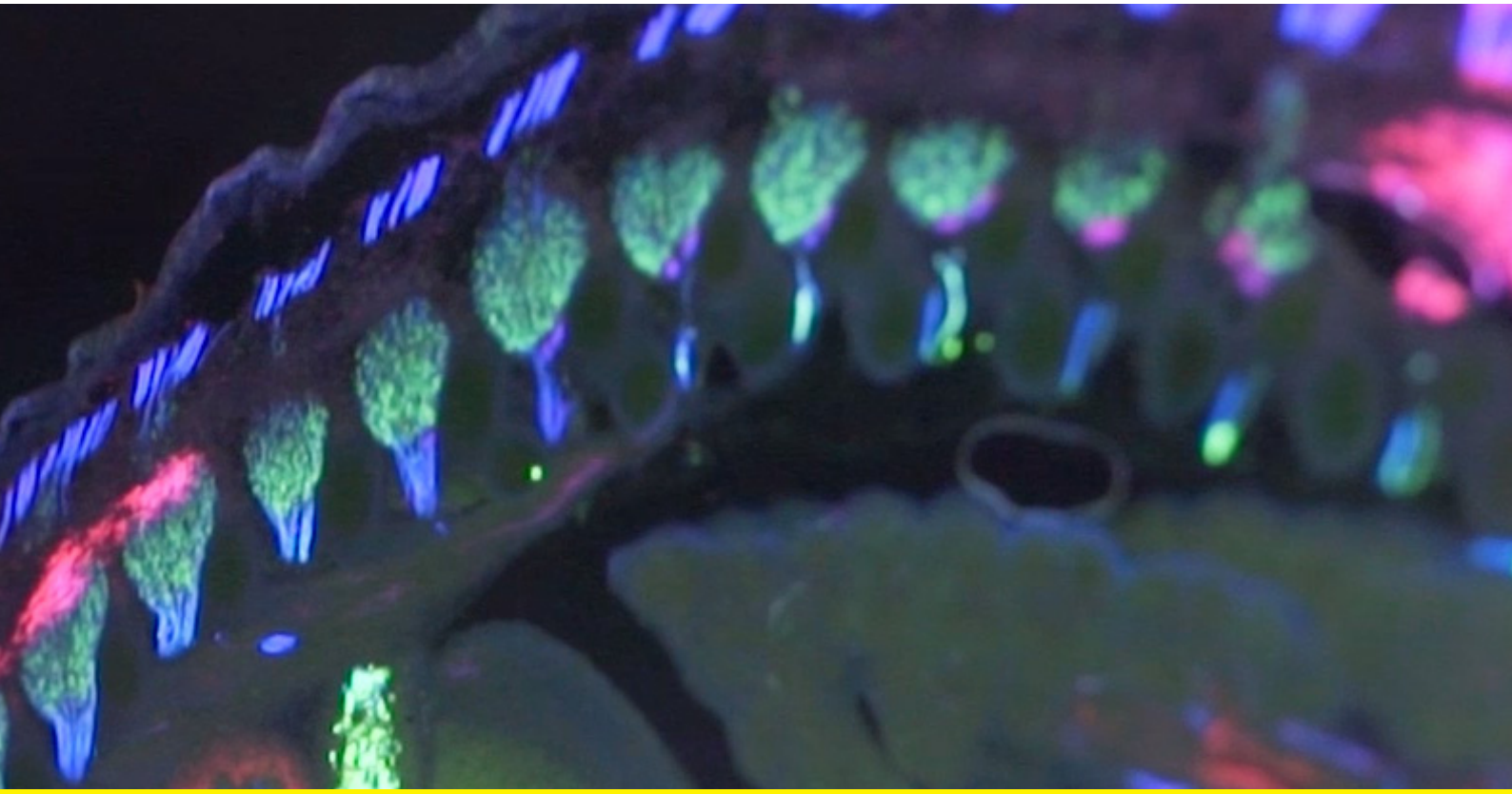
Prof Steinman has spent the past three decades extending the anti-integrin therapy to MND, and an alternative integrin, alpha 5 beta 1, may prove to play a key role when developing treatments for people living with MND.

"In animal models of MND, alpha 5 integrin increases survival and motor function and we are determined to take this potential therapy onward to a clinical trial," says Prof Steinman.

"The results thus far are encouraging... and the human studies show that the target is only in the motor areas of the central nervous system, and not in the sensory regions," he adds.

Prof Steinman says that FightMND's support *"will enable us to complete detailed studies on the role of alpha 5 integrin in ALS (MND). Hopefully anti-alpha 5 integrin will be transformative in MND, much like the anti-alpha 4 integrin antibody (Natalizumab) has been a potent and effective therapy in Multiple sclerosis."*

FightMND has invested $967,010 in this research.



About Prof Lawrence Steinman

Prof Lawrence Steinman is a Professor of Neurology and Neurological Sciences and Paediatrics at Stanford University. He practices neurology and has run an active research lab at Stanford for the past 41 years. His lab co-discovered the first monoclonal antibody treatment for Multiple sclerosis, Natalizumab in 1992.