22nd April 2021

Dear Officers of the United States Citizenship and Immigration Services,

I am very happy to write this letter in support of the petition filed for Dr. Razvan Marinescu based on his extraordinary contributions to the field of medical Artificial Intelligence, and in particular his work on disease progression modelling. Dr. Razvan Marinescu is a scientist of extraordinary ability, and his work has already made a major impact in the research field as well as in the pharmaceutical sector.

I am XXX (MD, PhD), current XX and Head of XXXX at XX. Previously, I was a Medical Director for XX and later Head of XX. During XX, I was a Senior Medical Director for the XXX program and Disease Area Head for XX in Multiple Sclerosis and Neuroscience at XXX. I am also a member of the XX Neurological Society and was an XX Professor of Neurology at the University of XX. I have almost 10 years of XX experience in the biopharmaceutical sector, and have (co)authored more than 140 scientific articles on neuroscience, particularly on Multiple Sclerosis, a demyelinating disease affecting 2.3 million people globally.

I first met Dr. Marinescu in October 2020, when XX, the Director of Artificial Intelligence at XX, invited Dr. Marinescu to present and discuss his work on disease progression modelling. Dr. Marinescu co-authored a highly influential article on a novel disease progression model called SuStaIn, that can identify, within a specific disease, multiple subgroups with different progression profiles. Additionally, Dr. Marinescu has also co-authored another high-profile article on mapping the evolution of neurodegeneration in Multiple Sclerosis using disease progression models. We at XX have been extremely interested in the modelling approach used by Dr. Marinescu, and have used it for our brain imaging data in Multiple Sclerosis. I should highlight that such models are critical for our 5 clinical trials in Alzheimer's disease, as well as our 2 clinical trials in Multiple Sclerosis, as they can predict the disease evolution of individual subjects undergoing the clinical trials, help select the most suitable subjects for going into the trial, and help select the right target measure for evaluating the drug effects. Given the potential to impact all our clinical trials, that incur costs in the order of millions of dollars, our Artificial Intelligence team has implemented and built on Dr. Marinescu's models.

Another influential work by Dr. Marinescu that we have been paying very close attention is the TADPOLE Competition, which compares algorithms at predicting the progression of individuals at risk of Alzheimer's disease. These algorithms are highly useful towards identifying the most suitable patients that can go into our clinical trials, i.e. those that will benefit the most from the drug treatments. This solves one key issue we often face in clinical trials, that of cohort diversity due to different underlying genetics and pathology, which often obscures treatment effects. The computational models from the TADPOLE Challenge can help us select homogeneous groups of patients, thereby increasing the treatment effects in drug trials.

Dr. Marinescu's work on understanding disease progression of Alzheimer's disease and Multiple Sclerosis can have immense implications to enhance the probability of success of transformative drug development at the stage of pivotal clinical trials in those devastating neurological diseases affecting millions of people

Worldwide. There is currently no approved treatment for Alzheimer's disease that can stop cognitive decline, and all clinical trials so far have failed due to wrong treatment targets, wrong patients selected for trials, and difficulty in measuring treatment effects. Through Dr. Marinescu's work, which improves the understanding of such diseases, and could lead to better targets and cohort selection, there is increased hope that disease-modifying treatments will alter the course of Alzheimer's disease in the future.

Dr. Marinescu is a leading scientist who has risen to the very top of the field of medical Artificial Intelligence (AI). His AI models are already used by our research teams at XX, and we are currently keeping a close collaboration with him. In addition, Dr. Marinescu has extraordinary technical skills, as well as a deep fundamental understanding of medical problems. As the XX for XX at XX, who has been involved with recruiting top talent for many years, I can assure you that Dr. Marinescu's skills and contributions are exceptional and only matched by a very small percentage of researchers worldwide.

In summary, I strongly support Dr. Marinescu is his petition for a green card based on his extraordinary abilities in science and the impact of his work. Please do not hesitate to contact me directly if I can provide further information on Dr. Marinescu.

Sincerely,