Dear CIBM Advisory Boards,

I am writing the letter to support Dr. Shicheng Guo for the application of Computation and Informatics in Biology and Medicine (CIBM) training program in UW-Madison. I have been collaborating with Dr. Guo on autoimmune disease genetic epidemiology research since 2013. In the past 5 year, we are working together and published more than seven papers, which are focusing on the novel susceptibility gene identification for rheumatoid arthritis (RA), systemic sclerosis (SSc) and ankylosing spondylitis (AS). I want to acknowledge for his contribution on human genetics contribution to our previous works. Dr. Guo is one of my best collaborators.

I am currently a full professor in School of Medicine, University of Texas. My collaborators in Fudan University introduce Dr. Guo to me. His Ph.D studying lab is famous in population genetics in China. Therefore, we have some international projects to compare the difference of the genetic structure between Chinese Han population and Caucasian population, especially on autoimmune diseases. In these studies, we comprehensively investigated the susceptibility variances for SSc, RA and AS including HLA-DRB1, HLA-DQA1, NOTCH4, APOBEC3A/B. We also investigated the copy number variation in systemic sclerosis and identified large number candidate SSc associated CNVs. The further functional analysis to these variants are on the way. We have lots of common research interest not only on genetic variation section. In the past several years, we also investigate the roles of epigenetic variation in autoimmune disease. For example, we identified DOT1L, one of most important histone methylation factors, is abnormal in osteoarthritis (OA) and rheumatoid arthritis (RA). Dr. Guo also completed the first methylation profile for CD4+ T-cell in rheumatoid arthritis patient in Chinese population. After he started his postdoc training in Marshfield Clinic, we still try to have some coloration on several field including combine the systemic sclerosis exom-chip data from Marshfield Clinic PMRP and our GWAS data to identify novel susceptibility genes, especially integrate ENCODE, GTEx and Blueprint epigenetic regulatory data. Dr. Guo is one of best collaborators with me to conducted these research.

I strongly support him to be considered in the application to CIBM postdoctoral fellowship position in University of Wisconsin-Madison which will be quite helpful for his further independent academic research. Please don’t hesitate to email me If you have any question.

Sincerely Yours,

Xiaodong Zhou, Ph. D

Professor,

School of Medicine, University of Texas

Reference:

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4. Guo, S. *et al.* Copy Number Variation of HLA-DQA1 and APOBEC3A/3B Contribute to the Susceptibility of Systemic Sclerosis in the Chinese Han Population. *J Rheumatol* **43**, 880-6 (2016).

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