List for Discuss Topic @ Shanghai

**Genome-wide Association Study to Identify RA Susceptibility Genes and Pharmacogenetics**

Dr. He sent out 1086 RA and 1090 normal control for his first GWAS study using Illumina-ASA array (700K, 40$/sample). He will send another 1000 RA samples at end of 2019.

1. Check whether the clinical and demographic information is well prepared/designed.
2. How to make a full plan for this genetic study?
3. Identify new susceptibility genes and new drug response genes?
4. New Idea? New design?

**FSTL1 Project to reveal the functions of FSTL1 in rheumatoid arthritis**

1. How FSTL1 works in the susceptibility of rheumatoid arthritis?
2. The interaction network with current rheumatoid arthritis pathway?
3. When the function study can be done?

**Genetic and Epigenetic Study to Synovial Chondroma (SC) Pedigree**

1. Identify the genetic pathogenesis for this pedigree?
2. The first DNA methylation landscape for Synovial Chondroma (2 WGBS for SC and OA)

**Genetic research in non-Han Chinese population**

1. 56 minority races in China. How to design genetic research to non-Han Chinese population?
2. Is there any interesting study design we can discuss?

**Genetic study to patients with multiple traits of RA/SLE/GOUT/AS**

1. Lots of patients have multiple autoimmune phenotypes, is there any study design can be made to investigate the genetics for these specific patients?

**Triple Therapy to Rheumatoid Arthritis: a double-blind randomized controlled study**

1. Dr. He started this work several years ago and now the result comes out
2. What’s the next step?

**DNA methylation research in rheumatoid arthritis**

1. cfDNA research for rheumatoid arthritis?
2. Prepare a methodology paper compare traditional WGBS and nano-pore methylation sequencing in rheumatoid arthritis in synovial cells from RA vs OA?

**γδ T Cells and Neutrophils were identified to conspire to promote rheumatoid arthritis**

1. We started this project last year and we received some interesting result. However, suspended now
2. We don’t know what should we do next step

**Hospital, research and clinical application**

1. Currently, only pharmacogenetics is accepted and used in clinical side. How to use more genetic research in the clinical implementation so that benefit patient with most recent genetic research for rheumatoid arthritis patients?
2. How to do better precision medical for rheumatoid arthritis? If have some clear way, Guanghua hospital can take action very quickly.