

## Supplementary 1

### Search strategies for Pubmed, Web of Science, Embase, The Cochrane Library, Wanfang, Chinese National Knowledge Infrastructure databases

#### Pubmed

(Gastrointestinal Microbiome[mh]) OR (Gastrointestinal Microbiomes ) OR (Microbiome, Gastrointestinal) OR (Gut Microbiome) OR (Gut Microbiomes) OR (Microbiome, Gut) OR (Gut Microflora) OR (Microflora, Gut) OR (Gut Microbiota) OR (Gut Microbiotas) OR (Microbiota, Gut) OR (Gastrointestinal Flora) OR (Flora, Gastrointestinal) OR (Gut Flora) OR (Flora, Gut) OR (Gastrointestinal Microbiota) OR (Gastrointestinal Microbiotas) OR (Microbiota, Gastrointestinal) OR (Gastrointestinal Microbial Community) OR (Gastrointestinal Microbial Communities) OR (Microbial Community, Gastrointestinal) OR (Gastrointestinal Microflora) OR (Microflora, Gastrointestinal) OR (Gastric Microbiome) OR (Gastric Microbiomes) OR (Microbiome, Gastric) OR (Intestinal Microbiome) OR (Intestinal Microbiomes) OR (Microbiome, Intestinal) OR (Intestinal Microbiota) OR (Intestinal Microbiotas) OR (Microbiota, Intestinal) OR (Intestinal Microflora) OR (Microflora, Intestinal) OR (Intestinal Flora) OR (Flora, Intestinal) OR (Enteric Bacteria) OR (Bacteria, Enteric) AND (Lupus Erythematosus, Systemic[mh] OR (Systemic Lupus Erythematosus) OR (Lupus Erythematosus Disseminatus) OR (Libman-Sacks Disease) OR (Disease, Libman-Sacks) OR (Libman Sacks Disease)

#### Web of Science

#1. TS=(Lupus Erythematosus, Systemic or Systemic Lupus Erythematosus or Lupus Erythematosus Disseminatus or Libman-Sacks Disease or Disease, Libman-Sacks or Libman Sacks Disease)

#2. TS=(Gastrointestinal Microbiome or Gastrointestinal Microbiomes or Microbiome, Gastrointestinal or Gut Microbiome or Gut Microbiomes or Microbiome, Gut or Gut Microflora or Microflora, Gut or Gut Microbiota or Gut Microbiotas or Microbiota, Gut or Gastrointestinal Flora or Flora, Gastrointestinal or Gut Flora or Flora, Gut or Gastrointestinal Microbiota or Gastrointestinal Microbiotas or Microbiota, Gastrointestinal or Gastrointestinal Microbial Community or Gastrointestinal Microbial Communities or

Microbial Community, Gastrointestinal or Gastrointestinal Microflora or Microflora, Gastrointestinal or Gastric Microbiome or Gastric Microbiomes or Microbiome, Gastric or Intestinal Microbiome or Intestinal Microbiomes or Microbiome, Intestinal or Intestinal Microbiota or Intestinal Microbiotas or Microbiota, Intestinal or Intestinal Microflora or Microflora, Intestinal or Intestinal Flora or Flora, Intestinal or Enteric Bacteria or Bacteria, Enteric)

#3. #2 AND #1

### Embase

#1 'systemic lupus erythematosus'/exp

#2 'lupus erythematosus systemic': ti, ab, kw OR 'lupus erythematosus disseminatus': ti, ab, kw OR 'libman-sacks disease': ti, ab, kw OR 'disease, libman-sacks': ti, ab, kw OR 'libman sacks disease': ti, ab, kw

#3 #1 OR #2

#4 'intestine flora'/exp

#5 'gastrointestinal microbiome': ti, ab, kw OR 'gastrointestinal microbiomes': ti, ab, kw OR 'microbiomes gastrointestinal': ti, ab, kw OR 'gut microbiome': ti, ab, kw OR 'gut microbiomes': ti, ab, kw OR 'microbiomes, gut': ti, ab, kw OR 'gut microflora': ti, ab, kw OR 'microflora, gut': ti, ab, kw OR 'gut microbiota': ti, ab, kw OR 'gut microbiotas': ti, ab, kw OR 'microbiota, gut': ti, ab, kw OR 'gastrointestinal flora': ti, ab, kw OR 'flora, gastrointestinal': ti, ab, kw OR 'gut flora': ti, ab, kw OR 'flora, gut': ti, ab, kw OR 'gastrointestinal microbiota': ti, ab, kw OR 'gastrointestinal microbiotas': ti, ab, kw OR 'microbiota, gastrointestinal': ti, ab, kw OR 'gastrointestinal microbial community': ti, ab, kw OR 'gastrointestinal microbial communities': ti, ab, kw OR 'microbial community gastrointestinal': ti, ab, kw OR 'gastrointestinal microflora': ti, ab, kw OR 'microflora, gastrointestinal': ti, ab, kw OR 'gastric microbiome': ti, ab, kw OR 'gastric microbiomes': ti, ab, kw OR 'microbiome, gastric': ti, ab, kw OR 'intestinal microbiome': ti, ab, kw OR 'intestinal microbiomes': ti, ab, kw OR 'microbiome, intestinal': ti, ab, kw OR 'intestinal microbiota': ti, ab, kw OR 'intestinal microbiotas': ti, ab, kw OR 'microbiota, intestinal': ti, ab, kw OR 'intestinal microflora': ti, ab, kw OR 'microflora, intestinal': ti, ab, kw OR 'flora, intestinal': ti, ab, kw OR 'enteric bacteria': ti, ab, kw OR 'bacteria, enteric': ti, ab, kw

#6 #4 OR #5

#7 #3 AND #6

### **The Cochrane Library**

#1 MeSH: [Lupus Erythematosus, Systemic] explode all trees

#2 Disease, Libman-Sacks or Libman Sacks Disease or Libman-Sacks Disease or Lupus Erythematosus Disseminatus or Systemic Lupus Erythematosus

#3 #1 OR #2

#4 MeSH [Gastrointestinal Microbiome] explode all trees

#5 Microbiome, Gastric or Gastric Microbiome or Gastric Microbiomes or Enteric Bacteria or Bacteria, Enteric or Intestinal Flora or Intestinal Microbiotas or Microflora, Intestinal or Intestinal Microbiomes or Intestinal Microbiota or Intestinal Microbiome or Intestinal Microflora or Flora, Intestinal or Microbiota, Intestinal or Microbiome, Intestinal or Gastrointestinal Microbial Community or Gastrointestinal Microbiomes or Gut Flora or Gastrointestinal Microbial Communities or Gut Microbiome or Microflora, Gastrointestinal or Microbiome, Gut or Gastrointestinal Flora or Microbiota, Gastrointestinal or Gut Microbiotas or Gastrointestinal Microbiota or Gut Microbiomes or Gastrointestinal Microbiotas or Flora, Gastrointestinal or Microbiota, Gutor Gastrointestinal Microflora or Flora, Gut or Microbial Community, Gastrointestinal or Microflora, Gut or Microbiome, Gastrointestinal or Gut Microbiota or Gut Microflora

#6 #4 OR #5

#7 #3 AND #6

### **Wanfang**

主题:(系统性红斑狼疮 or SLE) and 主题:(胃肠道微生物组 or 肠道菌群 or 粪便菌群 or 肠道微生物)

### **Chinese National Knowledge Infrastructure databases**

SU=(系统性红斑狼疮+SLE) AND SU=(胃肠道微生物组+肠道菌群+粪便菌群+肠道微生物)