

| Species | Abundances in AD Compared to No Dementia | Related Conditions | Abundances in Disease Related Conditions | References |
|--|--|--------------------------------------|--|------------|
| <u>Butyrate Producing Species</u> | | | | |
| <i>Anaerostipes hadrus</i> | decreased | | | 1 |
| <i>Butyrivibrio hungatei</i> | decreased | | | 2 |
| <i>Butyrivibrio proteoclasticus</i> | decreased | | | 2 |
| <i>Cloacibacillus porcorum</i> | decreased | | | 3,4 |
| <i>Clostridium sp SY8519</i> | decreased | | | 5 |
| <i>Eubacterium eligens</i> | decreased | | | 6 |
| <i>Eubacterium hallii</i> | decreased | | | 7 |
| <i>Eubacterium rectale</i> | decreased | | | 6 |
| <i>Faecalibacterium prausnitzii</i> | decreased | | | 8 |
| <i>Roseburia hominis</i> | decreased | | | 9,10 |
| <i>Ruminococcus bicirculans</i> | decreased | | | 2 |
| <u>Previous Associations with Alzheimer's Disease</u> | | | | |
| <i>Bacteroides fragilis</i> | increased | | increased | 11 |
| <i>Eubacterium hallii</i> | decreased | | decreased | 12 |
| <i>Eubacterium rectale</i> | decreased | | decreased | 12 |
| <i>Klebsiella pneumonia</i> | increased | | increased | 13-15 |
| <i>Odoribacter splanchnicus</i> | increased | | increased | 16-18 |
| <u>Inflammation</u> | | | | |
| <i>Bacteroides dorei</i> | increased | Type 1 Diabetes | increased | 19 |
| <i>Bacteroides vulgatus</i> | increased | Autoimmune Diabetes/Autism | increased | 20-22 19 |
| <i>Collinsella aerofaciens</i> | increased | Rheumatoid Arthritis | increased | 23 |
| <i>Desulfovibrio fairfieldensis</i> | increased | Irritable Bowel Disease/Obesity | increased | 24,25 |
| <i>Roseburia hominis</i> | decreased | Ulcerative Colitis | decreased | 10 |
| <u>Other Neurological Diseases</u> | | | | |
| <i>Adlercreutzia equolifaciens</i> | decreased | Multiple Sclerosis | decreased | 26 |
| <i>Clostridium sp SY8519</i> | decreased | Parkinson's | decreased | 27 |
| <i>Faecalibacterium prausnitzii</i> | decreased | Parkinson's/ Irritable Bowel Disease | decreased | 10,27,28 |

| Pathogens | | | | |
|-------------------------------------|-----------|-----------------------|-----------|---------------|
| <i>Bacteroides fragilis</i> | increased | Multiple sites | increased | ²⁹ |
| <i>Desulfovibrio fairfieldensis</i> | increased | Bacteremia | increased | ³⁰ |
| <i>Eggerthella lenta</i> | increased | Intestinal Infections | increased | ³¹ |