Scientists at Columbia’s Mailman School of Public Health have discovered that people with chronic fatigue syndrome, a mysterious and often debilitating disorder that affects more than one million Americans, have abnormal levels of certain gut bacteria.

While medical researchers have long suspected that an imbalanced gut microbiome may contribute to chronic fatigue, the Columbia study is among the first to demonstrate that heightened or lowered levels of seven bacteria — Faecalibacterium, Roseburia, Dorea, Coprococcus, Clostridium, Ruminococcus, and Coprobacillus — are linked to the condition.

“By identifying the specific bacteria involved, we are one step closer to more accurate diagnosis and targeted therapies,” says senior study author W. Ian Lipkin.