**Supplementary Table 1.** An overview of published pathway titles from the KEGG, Reactome, BIGG, and Wikipathways repositories in which the defined TMA/TMAO pathway metabolites are present.

|  |  |  |  |
| --- | --- | --- | --- |
| **Metabolite** | **KEGG pathways** | **Reactome pathways** | **Wikipathways pathways** |
| Betaine | Glycine, serine and threonine metabolismMetabolic pathwaysABC transporters | Choline catabolismSulfur amino acid metabolism | Choline catabolism |
| Choline | Glycine, serine and threonine metabolismTeichoic acid biosynthesisGlycerophospholipid metabolismMetabolic pathwaysABC transportersCholinergic synapseBile secretionCholine metabolism in cancer | Choline catabolism | Choline catabolism |
| L-carnitine | ThermogenesisBile secretionDiabetic cardiomyopathy | Carnitine synthesisCarnitine metabolism |  |
| TMA | Methane metabolismMetabolic pathwaysMicrobial metabolism in diverse environmentsCarbon metabolism | Defective FMO3 causes TMAU |  |
| TMAO | Methane metabolismMetabolic pathwaysMicrobial metabolism in diverse environmentsTwo-component system | FMO oxidizes nucleophiles (Homo sapiens) | Nicotine metabolism in liver cells Cocaine metabolism Tamoxifen metabolism 1q21.1 Copy number variation syndrome |