Supplementary Table 1. An overview of the most frequently encountered analytical techniques in metabolomics

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| Analytical technique | Type of detectable metabolite | Advantages | Disadvantages |
| GC-MS | Volatile metabolites (and some nonvolatile metabolites after derivatization) of various polarities | * High sensitivity * Sample preparation is straightforward * More robust than LC-MS * Metabolite identification can be performed without a reference compound sample | * Limited ability to detect nonvolatile analytes * Determination of response factors necessary for quantification |
| LC-MS | Volatile or nonvolatile primarily nonpolar metabolites | * High sensitivity * Does not require derivatization of nonvolatile metabolites | * Determination of response factors necessary for quantification * Periodic quality assurance needed * Reference compound samples needed |
| NMR | All metabolites | * Non-destructive * Minimal sample preparation * Highly reproducible * Quantitative (1H) * Spatial mapping possible (MRI) | * Sensitivity inferior to MS * Metabolite identification hindered by signal overlap issues |