



Figure S1. (A) Technical variability for f-LAESI-MS based on sampling 1 μL droplets ($n = 15$) of 500 μM glutamate standard solution. Results are consistent with a normal distribution and a COV of 14.9%. Single cell results are a convolution of technical and biological variability. For example, sampling (B) *E. densa* epidermal cells ($n = 97$) and (C) *G. max* infected root nodule cells ($n = 60$) revealed gamma distributions with COV values of 97.3% and 50.7%, respectively.