Supporting Information

to

Fluorinated Gold Nanoparticles for Nanostructure Imaging Mass Spectrometry

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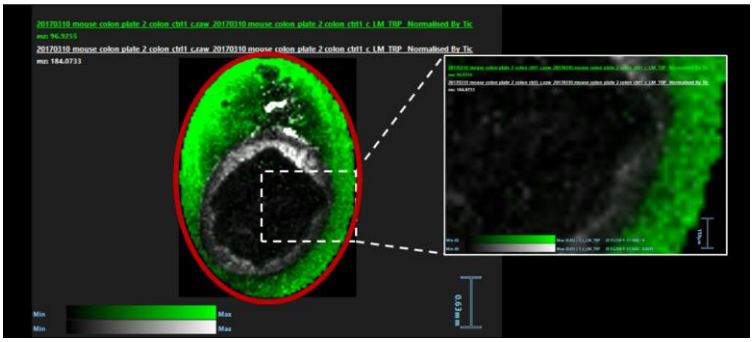

Figure S1. Absence of overlap between ion 96.9255 *m/z* (from OTC tissue embedding material) and phosphocholine (184.0733 *m/z*). The red line indicates the area of the chip surface included in the MSI analysis.

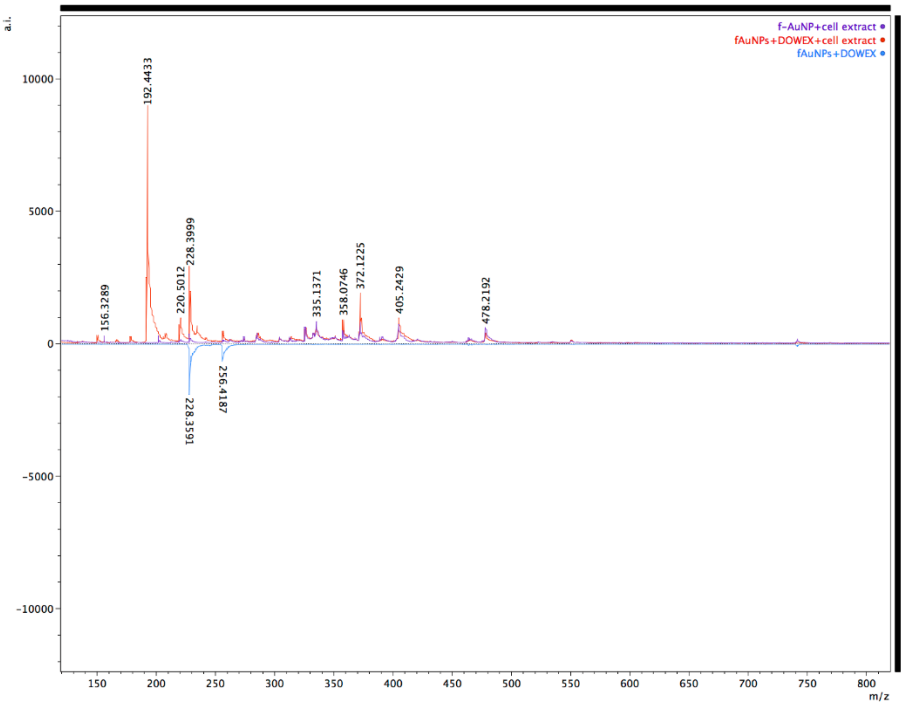

Figure S2. Comparison between MS signals obtained from the analysis of a cell extract using f-AuNPs alone, *versus* the same cell extract after pre-concentration with the Dowex anion exchange resin particles (1µL of 1mg/mL spotted) and fAuNPs. The bottom panel shows the background effect from DOWEX resin alone.

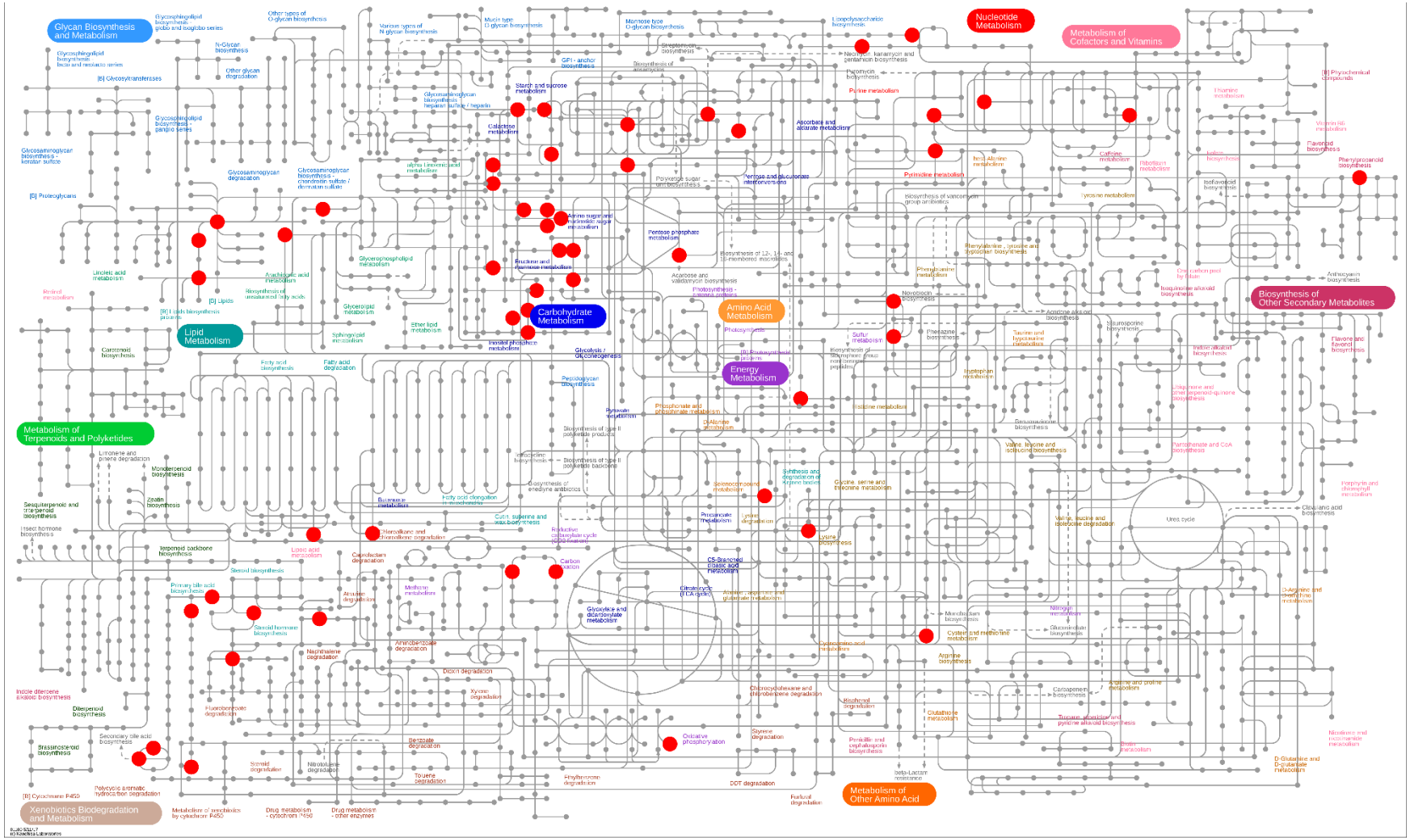

Figure S3. Coverage obtained by performing f-AuNPs NIMS of mice colon tissues, mapped on the KEGG human metabolome.

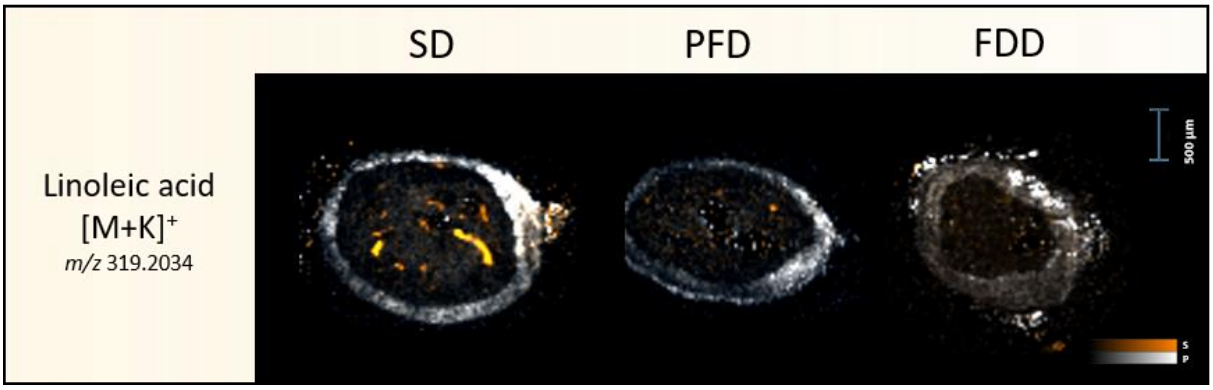

Figure S4. Distribution of linoleic acid and/or related isobars in the mouse colon under different diets.

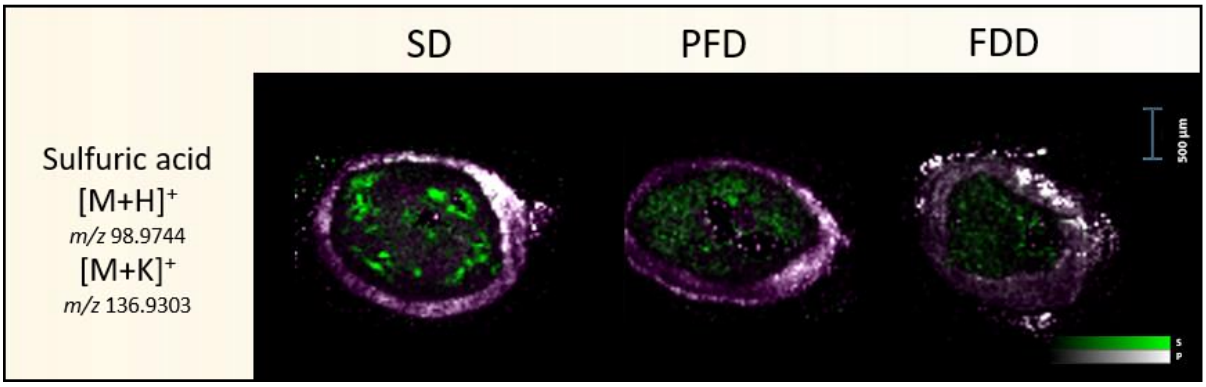

Figure S5. Distribution of sulfate and/or related isobars in the mouse colon under different diets.