Assessment of disease risk
by targeted metabolomics

Supplementary data on method for analysis of 3-Hydroxybutyrate (bHB).

Method based on article
Midttun et al (2016), PMID 27715010.

Material
3-Hydroxybutyrate (purity 95%) was obtained from Sigma-Aldrich, St.Louis, MO 63103 USA or 89555 Steinheim Germany.
3-Hydroxybutyrate-d2 (purity 99%) was obtained from C/D/N Isotopes Inc., 88 Leacock Street Pointe-Claire, Quebec, Canada.

Instrumentation
Agilent 7010B GC/TQ and Agilent 8890 GC System.

Chromatography and detection
GC-MS/MS; positive-ion multiple reaction monitoring (MRM); retention time = 2.95 min.
3-Hydroxybutyrate precursor ion = 145.0 m/z; product ion = 69.0 m/z.
3-Hydroxybutyrate-d2 precursor ion = 147.0 m/z; product ion = 70.0 m/z.

Method performance
Linear range: 1 - 1000 µmol/L.
Linearity: r2: 0.998.
LOD (S/N >5): 1 µmol/L.
Within-day CV: 2-4 %.
Between-day CV: 3-5 %.