

## Reference Material 8048

### Human Fecal Material

## REFERENCE MATERIAL INFORMATION SHEET

**Purpose:** The non-certified values delivered by this Reference Material (RM) are intended for validating methods for routine metagenomic and metabolomic measurements, differential studies, interlaboratory comparisons, laboratory and instrument qualification, and training by the metagenomic and metabolomic communities. RM 8048 can be used to assess comparability within a laboratory, between laboratories, or among different measurement approaches. RM 8048 can also help assess the confidence of metagenomic and metabolite annotation and identification. NOTE: See page 26 for “Usage and Privacy Agreement” regarding identifiable private information.

**Description:** A unit of RM 8048 consists of four vials each from two dietary pools: Part A: Omnivore stool and Part B: Vegetarian stool. Each vial contains approximately 1 mL of stool slurry material (100 mg/mL cryohomogenized stool/water).

**Non-Certified Values:** Non-certified values are suitable for use in method development, method harmonization, and process control but do not provide metrological traceability to the International System of Units (SI) or other higher-order reference system [1].

Table 1 lists the moisture content of the omnivore and vegetarian stool. The moisture content was determined by freeze-drying 5 vials of each material continuously over a period of three days.

Non-certified metagenomic and metabolite identities (MSI level 2 [2]) present in RM 8048 are listed in Tables 2–7. These tables are also available as a download from the NIST store page, [https://shop.nist.gov/ccrz\\_ProductDetails?sku=8048&cclcl=en\\_US](https://shop.nist.gov/ccrz_ProductDetails?sku=8048&cclcl=en_US). This information is the best metagenomic and metabolite annotation/identification estimate based on currently available information as determined by 16S rRNA amplicon sequencing, LC-MS/MS, and NMR; however, the evidence does not meet the NIST criteria for certification of chemical identity. Tables 2–3 list the identities of the metagenomic constituents in the omnivore and vegetarian stool that have been established using identification methodology generally accepted by experts in the field. The identified genus in RM 8048 is inferred from metagenomic analysis by DNA extraction and 16S rRNA amplicon sequencing. Tables 4–5 list the identities of metabolites in the omnivore and vegetarian stool that have been established using identification methodology generally accepted by experts in the field. The identified metabolites in RM 8048 are inferred from untargeted metabolomics analysis (liquid chromatography mass spectrometry data dependent acquisition). Samples were analyzed on two different high resolution mass spectrometer instruments and the resulting tandem MS spectra (MS/MS) were searched with three different mass spectral library search algorithms. Tables 6–7 list the identities of metabolites in the omnivore and vegetarian stool that have been established using identification methodology generally accepted by experts in the field. The identified metabolites in RM 8048 are inferred from two independent methods by NMR using a 600 MHz, 700 MHz and 900 MHz instrument respectively.

**Additional Information:** Additional information is provided in Appendix A.

**Period of Validity:** The non-certified values are valid within the measurement uncertainty specified until **31 January 2030**. The value assignments are nullified if the material is stored or used improperly, damaged, contaminated, or otherwise modified.

**Maintenance of Non-Certified Values:** NIST will monitor this material to the end of its period of validity. If substantive technical changes occur that affect the non-certified values during this period, NIST will update this Reference Material Information Sheet and notify registered users. RM users can register online from a link available on the NIST SRM website or fill out the user registration form that is supplied with the RM. Registration will facilitate notification. Before making use of any of the values delivered by this material, users should verify they have the most recent version of this documentation, available through the NIST SRM website (<https://www.nist.gov/srm>).

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Table 1. Non-Certified Moisture Content in Omnivore and Vegetarian Stool.

	Mass Fraction (%)
Moisture (Omnivore)	97.329 ± 0.426
Moisture (Vegetarian)	97.397 ± 0.420

Table 2. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Omnivore Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
1	TACGTATGGAGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGTGCCTAGGTGGCAGT GCAAGTCAGATGTGAAAGGCCGGGCTCAACCCCGAGCTGCATTGAAACTGCTCGGC TAGAGTACAGGAGAGGCAGGCAGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTGCTGGACTGTTACTGACACTGAGGCACGAAA GCGTGGGGAGCAAACAGG	[Eubacterium] hallii group	<i>hallii</i>
2	TACGTATGGAGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGTGCCTAGGTGGCAGT GCAAGTCAGATGTGAAAGGCCGGGCTCAACCCCGAGCTGCATTGAAACTGCTAGC TAGAGTACAGGAGAGGCAGGCAGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTGCTGGACTGTTACTGACACTGAGGCACGAAA GCGTGGGGAGCAAACAGG	[Eubacterium] hallii group	<i>hallii</i>
3	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGAATG GCAAGTCTGATGTGAAAGGCCGGGCTCAACCCCGGGACTGCATTGAAACTGCTAACATC TAGAGTACCGGAGGGTAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTACTGGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	[Ruminococcus] gauvreauii group	NA
4	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGAATG GCAAGTCTGATGTGAAAGGCCGGGCTCAACCCCGGGACTGCATTGAAACTGCTAACATC TAGAGTACCGGAGGGTAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTACTGGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	[Ruminococcus] gauvreauii group	NA
5	TACGTATGGTCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGAGTG GCAAGTCTGATGTGAAAAGCCGGGCTCAACCCCGGGACTGCATTGAAACTGCTAACATC TAGAGTACCGGAGAGGTAAAGCGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTACTGGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	[Ruminococcus] torques group	NA
6	TACGTATGGTCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGCAGCGGTGCG GCAAGTCTGATGTGAAAAGCCGGGCTCAACCCCGGTACTGCATTGAAACTGCGTAC TAGAGTGTGGAGGGTAAGCGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGCCTACTGGACGATAACTGACGCTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Agathobacter</i>	NA
7	TACAGAGGTCTCAAGCGTTGTCGGAATCACTGGCGTAAAGCGTGCCTAGGCTGTTTC GTAAGTCGTGTGAAAGCGCGGGCTCAACCCCGCGACGGCACATGATACTGCGAGAC TAGAGTAATGGAGGGGAACCGGAATTCTCGGTGTTAGCAGTGAATGCGTAGATATCGA GAGGAACACTCGTGGCGAAGGCAGGCCTCTGGACATTAACTGACGCTGAGGACAGAAG GCCAGGGAGCGAAAGGG	<i>Akkermansia</i>	<i>muciniphila</i>
8	TACGTAGGGGCAAGCGTTATCCGGAATTACTGGGTGAAAGGGAGCGTAGGGTATG GCAAGTCAGAAGTGAAAAGCCAGGGCTTAACCTGGACTGCTTGTAAACTGTCAGAC TGGAGTCAGGAGAGGTAAAGCGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACCATCGTGGCGAAGGCAGGCCTACTGGACTGAAACTGACACTGAGGCACGAAA GCGTGGGGAGCAAACAGG	<i>Anaerostipes</i>	<i>hadrus</i>
9	TACGTAGGGTCAAGCGTTATCCGGAATTATGGCGTAAAGGGCTCGTAGGCGGTTCG TCGCGTCCGGTGTGAAAGTCATCGCTAACGGTGGATCCCGCCGGTACGGCGGGC TTGAGTCGGTAGGGAGACTGGAAATTCCGGTGTAAACGGTGGATGTGTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTACTGACGCTGAGGAGCGAAA GCGTGGGGAGCGAAACAGG	<i>Bifidobacterium</i>	<i>adolescentis</i>
10	TACGTAGGGTCAAGCGTTATCCGGAATTATGGCGTAAAGGGCTCGTAGGCGGTTCG TCGCGTCCGGTGTGAAAGTCATCGCTAACGGTGGATCCCGCCGGTACGGCGGGC TTGAGTCGGTAGGGAGACTGGAAATTCCGGTGTAAACGGTGGATGTGTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTACTGACGCTGAGGAGCGAAA GCGTGGGGAGCGAAACAGG	<i>Bifidobacterium</i>	<i>breve</i>
11	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGTGTG GCAAGTCTGATGTGAAAGCGATGGCTCAACCTGTGGACTGCATTGAAACTGCTACAC TTGAGTCGGAGGGTAAGCGGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGGTCTCTGGCCGTACTGGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAAACAGG	<i>Blautia</i>	<i>obeum</i>

Table 2. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Omnivore Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
12	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGACTG GCAAGTCTGATGTGAAAGCGGGGGCTCAACCCCTGGACTGCATTGAAAATGTTAGTC TTGAGTGCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACCGTAAC TGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Blautia</i>	<i>obeum</i>
13	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGATGG ACAAGTCTGATGTGAAAGGCTGGGCTCAACCCCGGACTGCATTGAAAATGCCGTC TTGAGTGCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACCGTAAC TGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Blautia</i>	NA
14	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGCATA ACAAGTCTGATGTGAAAGGCTGGGCTTAACCCCGGACTGCATTGAAAATGTTAAGC TTGAGTGCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACCGTAAC TGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Blautia</i>	NA
15	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGATTA GCAAGTCTGATGTGAAAGGCAAGGGCTCAACCCCTGGACTGCATTGAAAATGCCAGTC TTGAGTGCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACCGTAAC TGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Blautia</i>	NA
16	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGCGCA GCAAGTCTGATGTGAAAGGCAAGGGCTTAACCCCTGGACTGCATTGAAAATGCTGTGC TTGAGTGCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACCGTAAC TGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Blautia</i>	NA
17	TACGTAGGTGGCGAGCGTTATCCGAATCATTGGCGTAAAGAGGGAGCAGGCCGCC AAGGGTCTGTTGAAAGACCGAACGCTAAACTCGGTGAGCCATGGAAACCGGGCGCT AGAGTGCAGGAGAGGATCGTGAATTCCATGTGTAGCGGTGAAATGCGTAGATATGG AGGAACACCAGTGGCGAAGGCAGCGTGGCCGAAC TGACGCTCATCCCAGAAC GTGGGGAGCAAATAGG	<i>Catenibacterium</i>	NA
18	TACGTAGGTGGCGAGCGTTATCCGAATCATTGGCGTAAAGAGGGAGCAGGCCGCC AAGGGTCTGTTGAAAGACCGAACGCTAAACTCGGTGAGCCATGGAAACCGGGCGCT AGAGTGCAGGAGAGGAGAACGGGAAATTCTAGTGTAGCGGTGAAATGCGTAGAGATTAG GAAGAACACCAGTGGCGAAGGCAGCTCTGGACTGTAAC TGACGCTGAGGCTCGAAAG CGTGGGGAGCAAACAGG	<i>Catenibacterium</i>	NA
19	TACGTAGGTGGCGAGCGTTGTCCGGATTTACTGGCGTAAAGGGAGCGTAGGCGGATT TTAAGTGAGATGTGAAATACCGGCTTAACCTGAGTGTGCTGCATTCAAACGGAAGTCT AGAGTGCAGGAGAGGAGAACGGGAAATTCTAGTGTAGCGGTGAAATGCGTAGAGATTAG GAAGAACACCAGTGGCGAAGGCAGCTCTGGACTGTAAC TGACGCTGAGGCTCGAAAG CGTGGGGAGCAAACAGG	<i>Clostridium sensu stricto 1</i>	NA
20	TACGTAGGTGGCGAGCGTTGTCCGGATTTACTGGCGTAAAGGGAGCGTAGGCGGACTT TTAAGTGAGATGTGAAATACCGGCTCAACTGGGTGCTGCATTCAAACGGAAGTCT AGAGTGCAGGAGAGGAGAACGGGAAATTCTAGTGTAGCGGTGAAATGCGTAGAGATTAG GAAGAACACCAGTGGCGAAGGCAGCTCTGGACTGTAAC TGACGCTGAGGCTCGAAAG CGTGGGGAGCAAACAGG	<i>Clostridium sensu stricto 1</i>	NA
21	TACGTAGGGGGCGAGCGTTATCCGATTATTGGCGTAAAGCGCGTAGGCCGCC GCAGGGCGGGGGCTGAAGCGGGGGCTCAACCCCCCGAACCTCCCGGG CTTGGGTCCGGTAGGGGAGGGTGGAAACACCCGGTGTAGCGGTGAAATGCGCAGATATCG GGTGGAAACACCGGTGGCGAAGGCAGCTCTGGCCGAGACCGACGCTGAGGCGCGAA AGCTGGGGAGCGAACAGG	<i>Collinsella</i>	<i>aerofaciens</i>
22	TACGTAGGGGGCGAGCGTTATCCGATTATTGGCGTAAAGCGCGTAGGCCCTG GCAGGGCGGGGGCTCAATCGGGGGCTCAACCCCCCGAACCTCCGG TTGGTCCGGTAGGGGAGGGTGGAAACACCCGGTGTAGCGGTGAAATGCGCAGATATCG GTGGAAACACCGGTGGCGAAGGCAGCTCTGGCCGAGACCGACGCTGAGGCGCGAAA GCTGGGGAGCGAACAGG	<i>Collinsella</i>	NA
23	TACGTAGGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGGCGGGA GCAAGTCAGAACGTGAAAGCCGGGGCTCAACCCCCGGACGGCTTTGAAACTGCCCTGC TTGATTCAGGAGAGGTAAGCGAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCAGCTACTGGACTGACAATGACGCTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Coprococcus</i>	<i>catus</i>
24	TACGGAGGGTGCAAGCGTTACCCCGAATCACTGGCGTAAAGGGCGTAGGCGGAAA TTAAGTCTGGTTAAAGACCGGGCTCAACCTCGGGATGGACTGGAACTGGATTTC TTGACCTCTGGAGAGGTAACGGAAATTCTCTGGTAGCGGTGAAATGCGTAGATACCAG GAGGAACACCAATGGCGAAGGCAGTTACTGGACAGAAGGTGACGCTGAGGCGCGAAA GTGTGGGGAGCGAACACCGG	<i>Deinococcus</i>	<i>radiodurans</i>

Table 2. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Omnivore Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
25	TACGTAGGGTGCAGCGTTAACCGAATTACTGGCGTAAAGCGTGCAGGCCGTTAT GTAAGACAGATGTGAAATCCCCGGCTAACCTGGGAACTGCATTGTGACTGCATGGC TAGAGTACGGTAGAGGGGGATGGAATTCCCGCGTGTAGCAGTGAATGCGTAGATATGCG GAGGAACACCGATGGCGAAGGCAATCCCCCTGGACCTGTACTGACGCTCATGCACGAAAG CGTGGGGAGCAAACAGG	<i>Delftia</i>	<i>tsuruhatensis</i>
26	TACGTAGGTGGCAAGCGTTGCGAATTATTGGCGTAAAGCGCAGGCCAGGCCGCTTC TTAAGTCCATCTTAAAGTGCAGGGCTAACCCCGTGTAGGGATGGAACACTGAGAGGCT GGAGTATCGAGAGGAAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGAGATTAG GAAGAACACCGGTGGCGAAGGCGACTTCTGGACGACAACGTGACGCTGAGGCCGAAA GCGTGGGGAGCAAACAGG	<i>Dialister</i>	NA
27	TACGGAGGGTGCAGCGTTAACCGAATGACTGGCGTAAAGCGCACCGCAGGCCGCTCT TTAAGTGGATGTGAAATCCCCGGCTAACCTGGGAACTGCATTCAAAACTGACAGGC TAGAGTCTCGTAGAGGGGGTAGAATCCAGGTGTAGCGGTGAAATGCGTAGAGATCTG GAGGAATACCGGTGGCGAAGGCGGCCCTGGACGAAGACTGACGCTCAGGTGCGAAA GCGTGGGGAGCAAACAGG	<i>Dickeya</i>	<i>zeae</i>
28	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGCCAGC GCAAGCCAGATGTGAAAGCCCAGGCTAACCCCGGACTGCATTGAACTGCTGAGC TAGAGTGTGGAGAGGCAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCGCTGCTGGACGATGACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Dorea</i>	NA
29	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGCCGT GCAAGTCTGAAGTGAAGGCATGGCTAACCTGTGGACTGCTTGAAACTGTGCAGC TAGAGTGTGGAGAGGTAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCGCTACTGGACGATGACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	<i>Dorea</i>	<i>formicigenerans</i>
30	TACGTAGGGGCGAGCGTTATCCGGAAATGATTGGCGTAAAGCGCGCCAGGCCGCC TCAAGCGGGACCTAACCCCGGGCTAACCCCGGGCCGGTCCGAACTGGCGGCT CGAGTGCCTGTAGGGAGAGCGGAATTCCAAGTGTAGCGGTGAAATGCGCAGATATTGG AAGAACACCGATGGCGAAGGCGAGCTCTGGCCGTACTGACGCTGAGGCCGAAAAG CCGGGGGAGCGAACAGG	<i>Enterorhabdus</i>	NA
31	TACGTAGGTGGCGAGCGTTATCCGGAAATTATTGGCGTAAAGAGGGAGCAGGCCACT AAGGGTCTGTGGTAAAGATCGAAGCTTAACCTCGGTAAAGCCATGGAAACCGTAGAGCT AGAGTGTGTAGAGGATCGTGGAAATTCCATGTGTAGCGGTGAAATGCGTAGATATATGG AGGAACACCACTGGCGAAGGCGACGATCTGGCGCATAACTGACGCTCAGTCCCAGAAG CGTGGGGAGCAAATAGG	<i>Erysipelotrichaceae</i> <i>UCG-003</i>	NA
32	AACGTAGGTACAAGCGTTGTCCCGAATTACTGGGTGAAAGGGAGCGCAGGCCGAA GACAAGTTGAAAGTGAATCTATGGCTAACCCATAAAACTGCTTCAAAACTGTTTTTC TTGAGTAGTGCAGAGGTAGGCGGAATTCCCGGTGTAGCGGTGAAATGCGTAGATATCGG GAGGAACACCACTGGCGAAGGCGGCCACTGGCACCAACTGACGCTGAGGCTCGAAA GTGTGGGTAGCAAACAGG	<i>Faecalibacterium</i>	<i>prausnitzii</i>
33	AACGTAGGTACAAGCGTTGTCCCGAATTACTGGGTGAAAGGGAGCGCAGGCCGAA GACAAGTTGAAAGTGAATCCATGGCTAACCCATGAACCTGCTTCAAAACTGTTTTTC TTGAGTAGTGCAGAGGTAGGCGGAATTCCCGGTGTAGCGGTGAAATGCGTAGATATCGG GAGGAACACCACTGGCGAAGGCGGCCACTGGCACCAACTGACGCTGAGGCTCGAAA GTGTGGGTAGCAAACAGG	<i>Faecalibacterium</i>	<i>prausnitzii</i>
34	TACGTAGGGGCAAGCGTTATCCGGAAATTATTGGCGTAAAGAGTACGTAGGTGGTTT CTAACGACGGGTTAACCGAATGGCTAACCATGGCTTGTGAACTGGAAAGACTT GAGTGCAGGAGAGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG AGGAACACCACTGGCGAAGGCGCCCTACTGGCACCAACTGACGCTGAGGCTCGAAA GTGGGGAGCAAACAGG	<i>Family XIII AD3011 group</i>	NA
35	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGCCAG GCAAGTCTGAAGTGAAAACCCAGGGCTAACCTGGACTGCATTGAAACTGTCTGGC TCGAGTGCCTGGAGAGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAAGAACACCACTGGCGAAGGCGCCACTGGACGTAACGTGACACTGAGGTACGAAAGC GCGTGGGGAGCAAACAGG	<i>Fusicatenibacter</i>	NA
36	TACGTAGGTGGCGAGCGTTATCCGGAAATGATTGGCGTAAAGGGAGCGTAGACGCCAG TCAAGTCTGGAGTAAAGGTATGGCTAACCCCGTACTGGCTCTGGAAACTGATCAGCT AGAGAACAGAACAGGAGCGCGGAACCTCATGTGTAGCGGTAAAATGCGTAGATATATG GAAGAACACCACTGGCGAAGGCGCCACTGGACGTAACGTGACACTGAGGCTCGAAA GCGTGGGGAGCAAATAGG	<i>Holdemanella</i>	NA
37	TACGTAGGGAGCAAGCGTTGTCCGGATTTACTGGGTGAAAGGGAGCGTAGGCCGATTG GCAAGTCAGAAGTGAATCCATGGCTAACCCATGAACCTGCTTGTGAAACTGTTAGTCT TGAGTGAAGTAGAGGTAGGCGGAATTCCCGGTGTAGCGGTGAAATGCGTAGAGATCGG GAGGAACACCACTGGCGAAGGCGCCACTGGCACCAACTGACGCTGAGGCAAGAAA GTGTGGGTAGCAAACAGG	<i>Incertae Sedis</i>	NA

Table 2. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Omnivore Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
38	TACGTAGGTGGCAAGCGTTATCCGGATTACTGGGTGAAAGGGCGTAGGCCGGAGT GCAAGTCAGATGTAAAATTATGGCTCAACCATAACCTGCATTGAAACTGTACTTCT TGAGTACTGGAGAGGCAGCGGAATTCCGTGTAGCGGTGAAATCGTAGATATACGG AGGAACACCAGGGCAAGGCAGGCTGACAGCAACTGACGCTGAGGCAGCAAAG CGTGGGGAGCAAACAGG	<i>Intestinimonas</i>	NA
39	TACGTATGGTCAAGCGTTATCCGGATTACTGGGTGAAAGGGAGCGTAGGTGCAAG GCAAGCCAGAAGTGAAAACCCGGGGCTAACCGCGGGATTGCTTTGAACTGTCTGC TAGAGTGCAGGAGGGGTGAGCGGAATTCCCTAGTGTAGCGGTGAAATCGTAGATATTAG GAGGAACACCGGAGGGCAAGGCAGGCTCACTGACTGAACTGACACTGAGGCTGAAA CGTGGGGAGCAAACAGG	<i>Lachnospiraceae ND3007 group</i>	NA
40	TACGTATGGGCGAGCGTTATCCGGATTCTGGCGTAAAGCGCGCGTAGGCCGCTG GCAGGCCGGAGTCAAAATCCGGGGCTAACCCCCGCCGCTCCCGGAAACCTCCAGGCT TGAGTCTGGCAGGGAGGGTGAATACCCGGTGTAGCGGTGAAATCGCAGATATCGG GTAGAACACCGTGGCAAGGCAGGCTCACTGAACTGACGTTGAGGCGCAAAGC GCTGGGGAGCAAACAGG	<i>Libanicoccus</i>	NA
41	CACCGCAGCTAGTGGTAGCAGTTTATTGGGCTAAAGCGTCCGTAGCCGTTAA TAAGTCTCTGGTGAATCCTGCAGCTTAACGTGGGAAATTGCTGGAGATACTATTAGACT TGAGATCGGGAGAGGTTAGAGGTACTCCCAGGGTAGAGGTGAAATTCTGTAATCTGGG AGGACCGCCTGTTGCGAAGGCAGTGTGACTGGAACGATTCTGACGTTGAGGCGCAAAGC TAGGGGCGCAAACAGG	<i>Methanobrevibacter</i>	<i>smithii</i>
42	TACGTAGGGGCAAGCGTTATCCGAATTATTGGCGTAAAGAGTGCAGGTGTTAT CTAAGCGTAAGGTTAACCGTGCAGCTCAACTGCATCTGCCCTGCGAAGTGGACTACTT GAGTGCAGGAGGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATCGTAGATATTAGG AGGAACACCAAGCGCGAAGGCAGGCTTCTGGACTGAACTGACACTGAGGCACGAAAG CGTGGGGAGCAAACAGG	<i>Mogibacterium</i>	NA
43	TACGTAGGTGACAAGCGTTGTCGGATTACTGGGTGAAAGGGCGTAGGCCGACTG TCAAGTCAGCTGTGAAATACCGGGCTTAACCCCGGGCTCGGATTGAAACTGACAGCC TTGAGTATCGGAGAGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATCGTAGATATTAG GAGGAACACCAAGTGGCGAAGGCAGGCTTCTGGACTGAACTGACGCTGAGGCGCAAAG CGTGGGGAGCAAACAGG	<i>Monoglobus</i>	NA
44	TACGTAGGGGCTAGCGTTATCCGAATTACTGGCGTAAAGGGTGCAGGTGGTTTC TTAAGTCAGAGGTGAAAGGCTACGGCTAACCGTAGTAAGCCTTGAACACTGGGAAACT TGAGTGCAGGAGAGGGAGGTGAAATTCCCTAGTGTAGCGGTGAAATCGTAGATATTAGG AGGAACACCAAGTGGCGAAGGCAGGCTCTGGACTGAACTGACACTGAGGCACGAAAG CGTGGGGAGCAAACAGG	<i>Romboutsia</i>	<i>ilealis</i>
45	TACGTAGGGAGCAAGCGTTGTCGGATTACTGGGTGAAAGGGCGTAGGCCGCTT GCAAGTCAGATGTGAAATCATGGCTAACCCATAAAACTGCATTGAAACTGTAGAGC TTGAGTGAAGTAGAGGCAGGCGGAATTCCCGTGTAGCGGTGAAATCGTAGAGATGGG GAGGAACACCAAGTGGCGAAGGCAGGCTCTGGACTGAACTGACGCTGAGGCGCAAAG CGTGGGTAGCAAACAGG	<i>Ruminococcus</i>	<i>bromii</i>
46	TACGTATGGGCGAGCGTTATCCGGATTCTGGCGTAAAGCGCGCGTAGGCCGAGCG CTAAGCGGGACCTCTAACCCGAGGGCTAACCCCCGCCGGTCCGAACTGGCGCTCT CGAGTGCAGGGAGAGCGGAATTCCCGTGTAGCGGTGAAATCGCAGATATCGG GAAGAACACCGACGGCGAAGGCAGCTCTGGCCGAAACTGACGCTGAGGCGCGAAA GCTGGGGAGCGAAACAGG	<i>Senegalimassilia</i>	NA
47	TACGTAGGTCCCAGCGTTGTCGGATTATTGGCGTAAAGCGAGGCCAGGCCGGTTG ATAAGTCTGAAGTTAAAGGCTGTGCTAACCATAGTCGCTTGGAAACTGTCAAACCTT GAGTGCAGAAGGGAGAGTGGAAATTCCATGTGTAGCGGTGAAATCGTAGATATAGG AGGAACACCGGTGGCGAAGGCAGGCTCTGGCTGTAACTGACGCTGAGGCTCGAAAGC GTGGGGAGCGAAACAGG	<i>Streptococcus</i>	<i>salivarius</i>
48	AACGTAGGGTCAAGCGTTGTCGGATTACTGGGTGAAAGGGAGGCCAGGCCGGAA GACAAGTTGGAAGTGAACCAACCATGGCTAACCCATGAATTGCTTCAAACACTGTTTCT TTGAGTAGTCAGAGGTAGATGGAATTCCCGGTGTAGCGGTGAAATCGTAGATATCGG GAGGAACACCAAGTGGCGAAGGCAGGCTACTGGGCACCAACTGACGCTGAGGCTCGAAA GCATGGGTAGCAAACAGG	<i>Subdoligranulum</i>	NA
49	AACGTAGGGTCAAGCGTTGTCGGATTACTGGGTGAAAGGGAGGCCAGGCCGGACC GGCAAGTTGGAAGTGAACCAACCATGGCTAACCCATAATTGCTTCAAACACTGCTGGC CTTGAGTAGTCAGAGGTAGGTGAAATTCCCGGTGTAGCGGTGAAATCGTAGATATCGG GGAGGAACACCAAGTGGCGAAGGCAGGCTACTGGGCACCAACTGACGCTGAGGCTCGAAAGC AGCATGGGTAGCAAACAGG	<i>Subdoligranulum</i>	NA
50	TACGTAGGTGGCAAGCGTTGTCGGATTACTGGGTGAAAGGGCGTAGGCCGAGG GCAAGTCAGATGTGAAATCCACGGCTAACCTGTGAACTGCATTGAAACTGTTTCT TGAGTATCGGAGAGGCAATCGGAATTCCCTAGTGTAGCGGTGAAATCGTAGATATTAGG AGGAACACCAAGTGGCGAAGGCAGGATTGCTGGACGACAACGTGACGCTGAGGCGCGAAAG CGTGGGGAGCAAACAGG	UCG-002	NA

<sup>(a)</sup> NA indicates a species was not assigned.

Table 3. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Vegetarian Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
1	TACGTATGGAGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGTGCCTAGGTGGCAGT GCAAGTCAGATGTGAAAGGCCGGGCTCAACCCCAGCTGCATTGAAACTGCTCGGC TAGAGTACAGGAGAGGCCGGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCAGCCTGCTGGACTGTTACTGACACTGAGGCACGAAA GCGTGGGGAGCAAACAGG	[Eubacterium] hallii group	<i>hallii</i>
2	TACGTATGGAGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGTGCCTAGGTGGCAGT GCAAGTCAGATGTGAAAGGCCGGGCTCAACCCCAGCTGCATTGAAACTGCTAGC TAGAGTACAGGAGAGGCCGGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCAGCCTGCTGGACTGTTACTGACACTGAGGCACGAAA GCGTGGGGAGCAAACAGG	[Eubacterium] hallii group	<i>hallii</i>
3	TACGTAGGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGAAATG GCAAGTCTGATGTGAAAGGCCGGGCTCAACCCCAGCTGCATTGAAACTGCTAACATC TAGAGTACCCGGAGGGGTAAAGTGGAAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCAGCCTGCTGGACTGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	[Ruminococcus] gauvreauii group	NA
4	TACGTATGGTCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGAGTG GCAAGTCTGATGTGAAAACCCGGGCTCAACCCCAGCTGCATTGAAACTGCTAACATC TAGAGTACCCGGAGAGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCAGCCTGCTGGACTGACGGTAACTGACGTTGAGGCTCGAAA GCGTGGGGAGCAAACAGG	[Ruminococcus] torques group	NA
5	TACGTAGGGGGCGAGCGTTATCCGGATTCACTGGCGTAAAGCGCGCTAGGCGGCCGC CTAAGCGGAACCTCTAACCCGGGCTCAACCTCGGGCCGGTTCCGGACTGGCGGCT CGAGTGCCTAGAGGCAGCGGAATTCCCGGTAGCGGTGGAATGCGCAGATATCGG GAAGAACACCGATGGCGAAGGCAGCCTGCTGGCCGCACTGACGCTGAGGCGCGAAA GCTGGGGAGCGAACAGG	<i>Adlercreutzia</i>	NA
6	TACGTATGGTCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGCAGGCGGTGCG GCAAGTCTGATGTGAAAACCCGGGCTCAACCCCAGCTGCATTGAAACTGCTGTAC TAGAGTGTGGAGGGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCAGCCTGCTGGACTGACGATAACTGACGCTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Agathobacter</i>	NA
7	TACAGAGGTCTAACCGTTCTCGGAATCACTGGCGTAAAGCGTGCCTAGGCTTTTC GTAAGTCGTGTGAAAGGCCGGGCTCAACCCCAGGCACGGCACATGATACTGCGAGAC TAGAGTAATGGAGGGGAACCGGAATTCTCGGTAGCAGTGAATGCGTAGATATCGA GAGGAACACTCGTGGCGAAGGCAGCCTGCTGGACATTAACTGACGCTGAGGCACGAAG GCCAGGGGAGCGAACAGG	<i>Akkermansia</i>	<i>muciniphila</i>
8	TACGTAGGGGGCAAGCGTTATCCGGATTACTGGGTGAAAGGGTGCCTAGGTGGTATG GCAAGTCAGAAGTGAAAACCCAGGGCTTAACCTGGACTGCTTTGAAACTGTCAGAC TGGAGTGCAGGAGAGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACATCAGTGGCGAAGGCAGCCTGCTGGACTGAAACTGACACTGAGGCACGAAA GCGTGGGGAGCGAACAGG	<i>Anaerostipes</i>	<i>hadrus</i>
9	TACGTAGGGGGCAAGCGTTATCCGGATTACTGGGTGAAAGGGTGCCTAGGTGGTATG GCAAGTCAGAAGTGAAAACCCAGGGCTTAACCTGGACTGCTTTGAAACTGTCAGAC TAGAGTGCAGGAGAGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACATCAGTGGCGAAGGCAGCCTGCTGGACTGAAACTGACACTGAGGCACGAAA GCGTGGGGAGCGAACAGG	<i>Anaerostipes</i>	<i>hadrus</i>
10	TACGTAGGGTGCAAGCGTTATCCGGATTATTGGCGTAAAGGGCTCGTAGGCGGTTCG TCGCGTCCGGTGTGAAAGTCATCGCTAACGGTGGATCCGCCGGTACGGCGGGC TTGAGTGCCTAGGGAGACTGGATTCCCGGTGTAACGGTGGAAATGTTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTCAGTACGCTGAGGAGCGAAA GCGTGGGGAGCGAACAGG	<i>Bifidobacterium</i>	<i>adolescentis</i>
11	TACGTAGGGTGCAAGCGTTATCCGGATTATTGGCGTAAAGGGCTCGTAGGCGGTTCG TCGCGTCCGGTGTGAAAGTCATCGCTAACGGTGGATCCGCCGGTACGGCGGGC TTGAGTGCCTAGGGAGACTGGATTCCCGGTGTAACGGTGGAAATGTTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTCAGTACGCTGAGGAGCGAAA GCGTGGGGAGCGAACAGG	<i>Bifidobacterium</i>	<i>breve</i>
12	TACGTAGGGTGCGAGCGTTATCCGGATTTATTGGCGTAAAGGGCTCGTAGGCGGTTCG TCGCGTCCGGTGTGAAAGTCATCGCTAACGGTGGATCTGCCGGTACGGCGGGC TGGAGTGCCTAGGGAGACTGGATTCCCGGTGTAACGGTGGAAATGTTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTCAGTACGCTGAGGAGCGAAA GCGTGGGGAGCGAACAGG	<i>Bifidobacterium</i>	<i>animalis</i>

Table 3. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Vegetarian Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
13	TACGTAGGGTGCAGCGTTATCCGGAATTATGGGCTAAAGGGCTCGTAGGCCGTTCG TCGCGTCCGGTGTAAAGTCCATCGCTAACCGTGGATCTGCCGGGACGGCGGC TGGAGTGCCTGGAGGGACTGGAATTCCCGGTGTAACGGTGAATGTTAGATATCGG GAAGAACACCAATGGCGAAGGCAGGTCTCTGGCCGTTACTGACGCTGAGGAGCGAAA GCGTGGGGAGCGAACAGG	<i>Bifidobacterium</i>	<i>catenulatum</i>
14	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGTGTG GCAAGTCTGATGTGAAAGGCATGGCTAACCTGTGGACTGCATTGAAACTGTCTAC TTGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	<i>obeum</i>
15	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGATGG ACAAGTCTGATGTGAAAGGCTGGGCTAACCCCGGGACTGCATTGAAACTGCCGTC TTGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	NA
16	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGACTG GCAAGTCTGATGTGAAAGCCTGGACTGCATTGAAACTGTTAGTC TTGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	<i>obeum</i>
17	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGCGCA GCAAGTCTGATGTGAAAGCAGGGCTAACCCCTGGACTGCATTGAAACTGCTGTG TTGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	NA
18	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGAGCA GCAAGTCTGATGTGAAAGCCTGGACTGCATTGAAACTGTTGATC TTGAGTACCGGAGAGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	NA
19	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGATTA GCAAGTCTGATGTGAAAGCAGGGCTAACCCCTGGACTGCATTGAAACTGCCAGTC TTGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	NA
20	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGTGT GCAAGTCTGATGTGAAAGCCTGGACTGCATTGAAACTGTTGATAC TCGAGTGCCTGGAGGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACGTTACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Blautia</i>	NA
21	TACGTAGGGAGCAAGCGTTATCCGATTTACTGGGTGAAAGGGCGCGCAGGCCCG GTAAGTGGAAAGTGAATCATGGCTAACCCATAACTGCTTCAAACACTGCTGGTCT TGAGTGTGAGAGGCAGCGGAATTCCGTGTAGCGGTGAAATGCGTAGATATACGG AGGAACACCACTGGCGAAGGCCTCTGGACATTAACTGACGCTGAGGCCGAAAG CGTGGGGAGCGAACAGG	<i>Butyricicoccus</i>	NA
22	TACGTAGGGGCGAGCGTTATCCGATTCTGGCGTAAGCGCGCTAGGCCCG GCAGGGCGGGGCTGAAGCGGGGCTAACCCCGAACCTCCGCG CTTGGGTCCGGTAGGGGAGGGTGGAAACACCCGGTGTAGCGGTGAAATGCGCAGATATCG GGTGGAACACCGGTGGCGAAGGCCTCTGGCCGAGACCGACGCTGAGGCCGAA AGCTGGGGAGCGAACAGG	<i>Collinsella</i>	<i>aerofaciens</i>
23	TACGTAGGGGCGAGCGTTATCCGATTCTGGCGTAAGCGCGCTAGGCCCG GCAGGGCAGGGGCTAACATGGCGGGCTAACCCCGTCCCCTGAACCGCCGG CGGGTCCGGTAGGGGAGGGTGGAAACACCCGGTGTAGCGGTGAAATGCGCAGATATCG GTGGAACACCGGTGGCGAAGGCCTCTGGCCGAGACCGACGCTGAGGCCGAA GCTGGGGAGCGAACAGG	<i>Collinsella</i>	<i>stercoris</i>
24	TACGTATGGTGCAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGACGGCTGT GTAAGTCTGAAAGTGAAGCCTGGACTGCATTGAAACTATGCG TAGAGTGTGGAGAGGTAAAGTGGAAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTGG GAGGAACACCACTGGCGAAGGCCTACTGGACGATGACTGACGTTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Coprococcus</i>	<i>comes</i>
25	TACGTAGGGGCAAGCGTTATCCGATTTACTGGGTGAAAGGGAGCGTAGGCCG GCAAGTCAGAAAGCCTGGACTGCATTGAAACTGCTGC TTGATTCAGGAGAGGTAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCACTGGCGAAGGCCTACTGGACTGACAATGACGCTGAGGCTCGAAA GCGTGGGGAGCGAACAGG	<i>Coprococcus</i>	<i>catus</i>

Table 3. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Vegetarian Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
26	TACGGAGGGTGCAGCGTTACCCGGAATCACTGGCGTAAAGGGCGTGTAGGCCGAAATTTAAGTCTGGTTAACGACGGGCTCAACCTCGGGATGGACTGGATACTGGATTCTTGACCTCTGGAGAGGTAACCTGGATTCTGGTAGCGGTGGAATGCGTAGATACAGAGGAACACCAATGGCGAAGGCAAGTACTGGACAGAAGGTGACGCTGAGGCCGAAAGTGTGGGAGCAAACAGG	<i>Deinococcus</i>	<i>radiodurans</i>
27	TACGTAGGGTGCAGCGTTAACGAAATTACTGGCGTAAAGCGTGCAGGCCGTTATGTAAGACAGATGTGAAATCCCAGGCTAACCTGGAACTGCATTGTGACTGCATGGCTAGAGTACGGTAGAGTACGGTAGAGGGATGGAATTCCCGCTGTAGCAGTGAATGCGTAGATATGCGGAGGAACACCGATGGCGAAGGCAATCCCCCTGGACCTGTACTGACGCTCATGCACGAAAGCGTGGGAGCAAACAGG	<i>Delftia</i>	<i>tsuruhatensis</i>
28	TACGTAGGGTGCAGCGTTATGGCGAATTATTGGCGTAAAGCGCAGGCCGCTTC CCAAGTCCCTCTTAAAAGTGCAGGGCTAACCCCGTGTAGGAAAGGAAACTGGGAAGCTGGAGTATCGGAGAGGAAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGAGATTAGGAAGAACACCGGTGGCGAAGGCGACTTCTGGACGAAAATGACGCTGAGGCCGAAAGCGTGGGAGCAAACAGG	<i>Dialister</i>	<i>invisus</i>
29	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGCACGGCAAGCCAGATGTGAAAGCCCAGGCTAACCCCGGACTGCATTGAACTGCTGAGCTAGAGTGTGGAGAGGCAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAGGAGGAACACCACTGGCGAAGGCGCCTGTGACGATGACTGACGTTGAGGCTCGAAAAGCGTGGGAGCAAACAGG	<i>Dorea</i>	NA
30	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGCTGTGCAAGTCTGAAGTGAAGGCATGGGCTAACCTGTGGACTGCTTGGAAACTGTGCAGCTAGAGTGTGGAGAGGTAAGTGGAAATTCTAGTGTAGCGGTGAAATGCGTAGATATTAGGAGGAACACCACTGGCGAAGGCGCCTACTGGCACCAACTGACGCTGAGGCTCGAAAAGCGTGGGAGCAAACAGG	<i>Dorea</i>	<i>formicigenerans</i>
31	AACGTAGGTACAAGCGTTGTCCCGAATTACTGGGTGAAAGGGAGGCCAGGCCGAAAGCAAGTGGAGAGTGAATCTATGGGCTAACCCATAAAACTGCTTCAAAACTGTTTTCTTGAGTAGTCAGAGGCGGAATTCCCGGTGTAGCGGTGGAATGCGTAGATATCGGGAGGAACACCACTGGCGAAGGCGCCTACTGGCACCAACTGACGCTGAGGCTCGAAAAGTGTGGTAGCAAACAGG	<i>Faecalibacterium</i>	<i>prausnitzii</i>
32	AACGTAGGTACAAGCGTTGTCCCGAATTACTGGGTGAAAGGGAGGCCAGGCCGAAATCAAGTGGAGAGTGAATCCATGGGCTAACCCATGAACCTGCTTCAAAACTGTTTTCTTGAGTAGTCAGAGGCGGAATTCCCGGTGTAGCGGTGGAATGCGTAGATATCGGGAGGAACACCACTGGCGAAGGCGCCTACTGGCACCAACTGACGCTGAGGCTCGAAAAGTGTGGTAGCAAACAGG	<i>Faecalibacterium</i>	NA
33	AACGTAGGTACAAGCGTTGTCCCGAATTACTGGGTGAAAGGGAGGCCAGGCCGAAAGCAAGTGGAGAGTGAATCCATGGGCTAACCCATGAACCTGCTTCAAAACTGTTTTCTTGAGTAGTCAGAGGCGGAATTCCCGGTGTAGCGGTGGAATGCGTAGATATCGGGAGGAACACCACTGGCGAAGGCGCCTACTGGCACCAACTGACGCTGAGGCTCGAAAAGTGTGGTAGCAAACAGG	<i>Faecalibacterium</i>	<i>prausnitzii</i>
34	TACGTAGGGGCAAGCGTTATCCGGATTTACTGGGTGAAAGGGAGCGTAGACGGCAAGGCAAGTCTGATGTGAAACCCAGGGCTAACCTGGACTGCATTGGAAACTGTCTGGCTCGAGTGGAGAGGCGAGAGGTAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAGGAAGAACACCACTGGCGAAGGCGCCTACTGGACGTTAAGTACGCTGAGGCTCGAAAAGCGTGGGAGCAAACAGG	<i>Fusicatenibacter</i>	NA
35	TACGTAGGTGGCGAGCGTTATCCGGAAATGATTGGCGTAAAGGGCGTAGGTGGCAGATCAAGTCTGGAGTAAAGGTATGGGCTAACCCGTACTGGCTCTGGAAACTGATCAGCTAGAGAACACAAAGAGGACGGCGGAACTCCATGTGTAGCGGTAAATGCGTAGATATATGGAGAACACCCGGTGGCGAAGGCGGCCGTGGCTGGATTCTGACACTGAAGCACGAAAAGCGTGGGAGCAAATAGG	<i>Holdemanella</i>	NA
36	TACGTAGGGAGCAAGCGTTGTCCGGATTTACTGGGTGAAAGGGCGTAGGCCGATTGCAAGTCAGAGTGAATCCATGGGCTAACCCATGAACCTGCTTGGAAACTGTTAGTCTGAGTAGAGGCGGAATTCCCGGTGTAGCGGTGAAATGCGTAGAGATATCGGGAGGAACACCACTGGCGAAGGCGCCTACTGGCTTAACTGACGCTGAGGCAAGGAAAGTGTGGTAGCAAACAGG	<i>Incertae Sedis</i>	NA
37	TACGTATGGTGCAGCGTTATCCGGATTTACTGGGTGAAAGGGCGTAGGTGGCAAGGCAAGCCAGGCTAACCCGGGATGGCTTGGAAACTGTCTGCAGCTAGAGTGCAGGAGGGGTGAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAGGAGGAACACCGGAGGCGAAGGCGCCTACTGGACTGTAACTGACACTGAGGCTCGAAAAGCGTGGGAGCAAACAGG	<i>Lachnospiraceae ND3007 group</i>	NA
38	TACGTAGGTGGCAAGCGTTATCCGGATTTATTGGCGTAAAGCGAGGCCAGGCCGTTGATAAAGTCTGATGTGAAAGCCTTGGCTAACCAAAGAAGTGCATCGGAAACTGTCAAGACTTGAGTAGCAGAGGACAGTGGAACTCCATGTGTAGCGGTGGAATGCGTAGATATATGGAGAACACCACTGGCGAAGGCGCCTACTGGCTTAACTGACGCTGAGGCAAGGAGCATGGTAGCGAACAGG	<i>Lactobacillus</i>	<i>mucosae</i>

Table 3. Non-Certified Top 50 V4 16S rRNA sequences and Genus-Species Identifications (listed alphabetically by genus) in Vegetarian Stool

No.	Sequence	Genus	Species <sup>(a)</sup>
39	TACGTAGGCGGCAAGCGTTGCCGAATTATTGGCGTAAAGGGAGCGCAGGCCGGAA ACTAAGCGGATCTTAAAGTCGGGGCTAACCCCGTGTAGGGTCCGAACTGGTTTC TTGAGTGCAGGAGAGGAAAGCGGAATTCCCAGTGTAGCGTAGATATTGG GAAGAACACCAGTGGCGAAGGCCGTTCTGACTGTAACGTGACGCTGAGGCCGAAAG CTAGGGTAGCGAACCGG	<i>Megamonas</i>	NA
40	CACCGCAGCTAGTGGTAGCAGTTTATTGGCTAAAGCGTCCGTAGCCGGTTAA TAAGTCTGGTGAAATCCTGCAGCTTAACGTGGGATTGCTGGAGATACTATTAGACT TGAGATCGGGAGAGGTTAGAGGTACTCCAGGGTAGAGGTGAAATTCTGTAATCCTGG AGGACCGCCTGTCGAAGGCCTGACTGGAACGATTCTGACGGTGAGGGACGAAAGC TAGGGCGCGAACCGG	<i>Methanobrevibacter</i>	<i>smithii</i>
41	CACCGCAGCTCAAGTGGTAGCTTTTATTGGCTAAAGCGTCCGTAGCCGGTTGA TAAGTCTTGGTGAAAGCTGTAGCTTAACATAAGAATTGCTGAAGATACTGTCAACT TGAAGTCGGGAGAGGTTAGAGGTACTACCGGGTAGGGTGAAATCCTATAATCCTGG AGGACACCTGTGGCGAAGGCCTGACTGGAACGATCTGACGGTGAGTAACGAAAGC CAGGGCGCGAACCGG	<i>Methanospaera</i>	<i>stadtmanae</i>
42	TACGTAGGTGACAAGCGTTGCCGATTTACTGGGTGAAAGGGCGCTAGGCCGACTG TCAAGTCAGTCGTGAAATACCGGGCTAACCCCGGGCTGCATTGAAACTGACAGCC TTGAGTATCGGAGAGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCCTTCTGACGACAACGTGACGCTGAGGCCGAAA GTGTGGGAGCAAACAGG	<i>Monoglobus</i>	NA
43	TACGTAGGTGGCAAGCGTTGCCGATTTACTGGGTGAAAGGGCGTGTAGGCCGGTAG ACAAGTCAGATGTGAAATACCGGGCTCAACTCCGGGCTGCATTGAAACTGTTATATC TTGAGTGTGGAGAGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAG GAGGAACACCAGTGGCGAAGGCCTTCTGACGATAACTGACGCTGAGGCCGAAA GCGTGGGAGCAAACAGG	<i>Monoglobus</i>	<i>pectinilyticus</i>
44	TACGTAGGGGGCTAGCGTTACCGGATTTACTGGCGTAAAGGGTGGTAGGCCGCTT TCAAGTCAGGAGTTAAAGGCTACGGCTAACCGTAGTAAGCCTGTACTGCTGACTT GAGTGCAGGAGAGGAAAGCGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTGG AGGAACACCAGTAGCGAAGGCCGCTTCTGACTGTAACGTGACGCTGAGGCCGAAAGC GTGGGGAGCAAACAGG	<i>Peptoclostridium</i>	NA
45	TACGTAGGTGGCGAGCGTTGCCGAATTATTGGCGTAAAGAGCATGTAGGCCGCTTA ATAAGTCAGCGTGAAATCGGGGCTAACCCGTATGGCGCTGAAACTGTTAGGCT TGAGTGCAGGAGAGGAAAGGGGAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTGG GAGGAACACCAGTGGCGAAGGCCGCTTCTGACTGTCGACGCTGAGATGCGAAAG CCAGGGTAGCGAACCGG	<i>Phascolarctobacterium</i>	<i>faecium</i>
46	TACGTAGGGGGCTAGCGTTACCGGATTTACTGGCGTAAAGGGTGGTAGGCCGCTT TTAAGTCAGGAGGTAAAGGCTACGGCTAACCGTAGTAAGCCTTGAAACTGGGAAACT TGAGTGCAGGAGAGGAGGTGAAATTCCCTAGTGTAGCGGTGAAATGCGTAGATATTAGG AGGAACACCAGTGGCGAAGGCCGCTCTGACTGTAACGTGACACTGAGGCCGAAAGC GTGGGGAGCAAACAGG	<i>Romboutsia</i>	<i>ilealis</i>
47	TACGTAGGGGGCGAGCGTTACCGGATTCTGGCTAAAGCGCGCTAGGCCGCTT TCAAGCGCACCGTCAAGCGGGGCTAACCCCGGAAGCGGCCGAAACTGGGGGG ATCGAGTGCCTGGAGGGGAAGCGGAATTCCCGGTAGCGGTGAAATGCGCAGATATCG GGAAGAACACCAGCGGCCGAGGCAGCCTCTGGCCGCACTGACGCTGAGGCCGAA AGCTGGGGAGCGAACAGG	<i>Slackia</i>	<i>piriformis</i>
48	TACGTAGGTCCCAGCGTTGCCGATTTATTGGCGTAAAGCGAGGCCAGGCCGGTT ATAAGTCAGGTTAAAGGCTGTGGCTAACCATAGTCGCTTGGAAACTGTCACAACTT GAGTGCAGAAGGGAGAGTGGAAATTCCATGTGTAGCGGTGAAATGCGTAGATATAGG AGGAACACCAGTGGCGAAGGCCGCTCTGGCTGTAACTGACGCTGAGGCCGAAAGC GTGGGGAGCGAACAGG	<i>Streptococcus</i>	<i>salivarius</i>
49	AACGTAGGGTGCAAGCGTTGCCGATTTACTGGGTGAAAGGGAGGCCAGGCCGGAA GACAAGTGGAAAGTGAAAACCATGGCTAACCCATGAATTGCTTCAAAACTGTTTTTC TTGAGTGTGCAGAGGTAGATGGAATTCCCGGTAGCGGTGAAATGCGTAGATATCGG GAGGAACACCAGTGGCGAAGGCCGCTACTGGGCACCAACTGACGCTGAGGCCGAA GCATGGGTAGCAAACAGG	<i>Subdoligranulum</i>	NA
50	AACGTAGGGTGCAAGCGTTGCCGATTTACTGGGTGAAAGGGAGGCCAGGCCGGACC GGCAAGTGGAAAGTGAAAACCATGGCTAACCCATAAATTGCTTCAAAACTGCTGGC CTTGAGTGTGCAGAGGTAGGTGGAATTCCCGGTAGCGGTGAAATGCGTAGATATCG GGAGGAACACCAGTGGCGAAGGCCGACCTACTGGGCACCAACTGACGCTGAGGCCGAA AGCATGGGTAGCAAACAGG	<i>Subdoligranulum</i>	NA

<sup>(a)</sup> NA indicates a species was not assigned.

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
(1-Ethoxy-1-oxo-4-phenylbutan-2-yl)alanine	CEIWXEQZZHLDU-UHFFFAOYSA-N
(2E,4E,6E)-11-(1,3-Benzodioxol-5-yl)-N-(2-methylpropyl)undeca-2,4,6-trienamide	ITXVWRWWSDXOY-HNZFQPFYSA-N
(2S)-2-[(3-Methylbutanoyl)amino]pentanedioic acid	HCVIJONZMYVLAW-ZETCQYMHSA-N
(3-beta)-Allopregnanolone sulfate	MENQCIVHHONJLU-FZCSVUEKSA-N
(4-Methylphenyl)oxidanesulfonic acid	WGNAKZGUSRVWRH-UHFFFAOYSA-N
1,2-Di-(9Z,12Z,15Z-octadecatrienoyl)-sn-glycero-3-phosphocholine	XXKFQTJOJZELMD-JICBSJGISA-N
1,2-Dioctadecanoyl-sn-glycerol	UHUSDOQQWJGJQS-QNGWXLTQSA-N
1,2-Dioleoyl-sn-glycero-3-phosphoethanolamine-N,N-dimethyl	XHPZRQBHFQVLEJ-UNUIOPIBSA-N
1,2-Dioleoyl-sn-glycerol	AFSHUZFMVJNKX-LLWMBOQKSA-N
1,2-Dipalmitoyl-sn-glycero-3-phosphoethanolamine	SLKDGVPLOSSLUAI-PGUFJCEWSA-N
1,2-Dipalmitoyl-sn-glycero-O-ethyl-3-phosphatidylcholine cation	VBZSUWNESITEBV-KHBQWKRXSA-N
1,2-Dipentadecanoyl-sn-glycero-3-phosphocholine	LJARBVLDOWRJT-PSXMRANNSA-N
1,2-Dipentadecanoyl-sn-glycero-3-phosphoethanolamine	SKVKIGSFTGVBOX-MGBGTMQVSA-N
1,3,7-Trimethyluric acid	BYXCFUMGEBZDDI-UHFFFAOYSA-N
1,4-Anhydro-6-O-[(9Z)-9-octadecenoyl]-D-glucitol	NWGKJDSEIKMTRX-AAZCQSIUSA-N
1,6-Hexamethylene-bis[3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate]	ZVVFKJZNVSANF-UHFFFAOYSA-N
1,7-Dimethyluric acid	NOFNCLGCUJJPKU-UHFFFAOYSA-N
13(S)-HOTrE	KLLGGGNRTVBSU-FQSPHKRJSN-A
13-Keto-9Z,11E-octadecadienoic acid	JHXAZBBVQRKJR-BSZOFBHS-A
14-(acetyloxy)-6-(furan-3-yl)-12-hydroxy-1,7,11,15,15-pentamethyl-5-oxo-3-oxapentacyclo[8.8.0.2,4.02,7.011,16]octadecan-18-yl acetate	PVCLMZBWMWIHKX-UHFFFAOYSA-N
1a,1b-Dihomo prostaglandin E1	YMDDELUTDBQEEMT-QZCLESEGSA-N
1-Behenoyl-2-hydroxy-sn-glycero-3-phosphocholine	UIINDYGXBJHQH-X-GDLZYMKVSA-N
1-Dodecyl-2-pyrrolidinone	NJPQAIBZIHNJDO-UHFFFAOYSA-N
1-Hexadecyl-2-(5Z,8Z,11Z,14Z-eicosatetraenoyl)-sn-glycero-3-phosphocholine	DUUSFCFBREELS-LXDDVLOTSA-N
1-Hexadecyl-2-(9Z-octadecenoyl)-sn-glycero-3-phosphocholine	SIEDNCNDNGMIKST-IYEJHTFSN-A
1-Isopropyl-5-oxo-3-pyrrolidinecarboxylic acid	YKWIPHVESIOGN-UHFFFAOYSA-N
1-Monolinolenin	GGJRAQULURVTAJ-PDBXOOCHSA-N
1-Monolinoleoyl-rac-glycerol	WECGLUPZRHLCT-HZJYTRNSA-N
1-Myristoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine	RPXHXZNGZBHSMJ-GOSISDBHSA-N
1-Oleoyl-2-hydroxy-sn-glycero-3-phospho-(1'-rac-glycerol)	FQQQKGAFQIIGLQ-VYFUBJQISA-N
1-Oleoyl-2-linoleoyl-rac-glycerol	BLZVZPYMHLXLHG-RQOIEFAZSA-N
1-O-Octadecyl-sn-glyceryl-3-phosphorylcholine	XKBJVQHMEXMFDZ-AREMUKBSSA-N
1-Palmitoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine	YVYMBNSKXOXSKW-HXUWFJFHSA-N
1-Palmitoyl-2-linoleoyl-rac-glycerol	SVXWJFFKLMLOHO-BCTR XSSUSA-N
1-Palmitoyl-2-linoleoyl-sn-glycero-3-phosphocholine	JLPULHDHAOZNQI-ZTIMHPMXSA-N
1-Palmitoyl-2-myristoyl-sn-glycero-3-phosphocholine	UIXXHROAQSBBOV-PSXMRANNSA-N
1-Palmitoyl-2-oleoyl-sn-glycerol	YEJYLHKQOBOSCP-OZKTZCCCSA-N
1-Palmitoyl-3-oleoyl-sn-glycero-2-phosphoethanolamine	BLMYNJDXEOSYBR-OTMQOFQLSA-N
1-Palmitoyl-sn-glycero-3-phosphocholine	ASWBNKHCZGQJV-HSZRJFAPSA-N
1-Pentadecanoyl-sn-glycero-3-phosphocholine	RJZVWDTYEWCAR-JOCHJYFZSA-N
1-Stearoyl-2-arachidonyl-sn-glycero-3-phosphocholine	PSVRFUPOQYJOOZ-RYIOQAQXSA-N
1-Stearoyl-2-hydroxy-sn-glycero-3-phosphocholine	IHNKQIMGVNPMT-C-RUZDIDTESA-N
1-Stearoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine	BBYWOYAFBUOUFP-JOCHJYFZSA-N

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
1-Stearoyl-2-oleoyl-sn-glycero-3-phosphocholine	ATHVAWFIAEPLPPQ-VRDBWYNSSA-N
1-Stearoyl-2-oleoyl-sn-glycero-3-phosphoethanolamine	JQKOHRZNEOQNJE-DJEJVYNPSA-N
2-((3aR,4S,7R,7aS)-1,3-Dioxohexahydro-1H-4,7-methanoisoindol-2(3H)-yl)propanoic acid	REFMTLIXGKZVDF-RQOWMOBWSA-N
2-(14,15-Epoxyeicosatrienoyl) glycerol	LPMVKZXODWQHGJ-ILYOTBPNSA-N
2-(1-Methyl-1H-pyrrol-2-yl)acetic acid	SYYOUHJSOLSJD-UHFFFAOYSA-N
2-(Hexadecylamino)ethanol	SIFHZKKXWMJWOB-UHFFFAOYSA-N
2-(O-beta-D-Glucopyranosyl)atractyligenin	ZUDBDCBPZHGAEL-ICRASABDSA-N
2,3,4,9-Tetrahydro-1H-beta-carboline-3-carboxylic acid	FSNCEEGOMTYXKY-UHFFFAOYSA-N
2,3-Dihydroxypropyl octadecanoate	VBICKXHEKHSIBG-UHFFFAOYSA-N
2,4-Bis(1,1-dimethylethyl)phenol phosphate	GUDSEWUOPVZPC-UHFFFAOYSA-N
2-[(2R,4aS,8S,8aS)-8-{2-[(4aS,7R,8aR)-7-(1-Carboxyvinyl)-1-hydroxy-4a-methyl-2-oxo-1,2,4a,5,6,7,8,8a-octahydro-1-naphthalenyl]ethyl}-4a-methyl-7-oxo-1,2,3,4,4a,7,8,8a-octahydro-2-naphthalenyl]acrylic acid	BSSWIRVAMSGQMG-RTTXQYISSA-N
2-[(3R,4S)-3-{{[5-(Cyclohexylmethyl)-1,2-oxazol-3-yl]methyl}-4-piperidinyl]-N-[2-(4-morpholinyl)ethyl]acetamide	CBYSOGZECVBHQN-SFTDATJTS-A-N
2-Arachidonoyl glycerol	RCRCTBLIHCWDZ-DOFZRALJSA-N
2'-Deoxyadenosine	OLXZPDWKRYJJZ-RRKCRQDMA-N
2'-Deoxyinosine	VGONTNSXDCQUGY-JBXZBNISA-N
2-Linoleoyl-1-palmitoyl-sn-glycero-3-phosphoethanolamine	HBZNVZIRJWODIB-NHCUFCNUSA-N
2-Oleoyl-1-palmitoyl-sn-glycero-3-phosphocholine	WTJKGGKOPKCXLL-VYOBOKEXSA-N
2-Palmitoyl-rac-glycerol	BBNYCLAREVXOSG-UHFFFAOYSA-N
3-(1H-Imidazol-4-yl)propanoic acid	ZCKYOWGFRHAZIQ-UHFFFAOYSA-N
3,4-Dihydroxyhydrocinnamic acid	DZAUWHJDUNRCTF-UHFFFAOYSA-N
3-[5-(2-Methylpropyl)-3,6-dioxopiperazin-2-yl]propanoic acid	CSRXCVLPMJBQIM-UHFFFAOYSA-N
3-beta-Hydroxy-5-cholestenoic acid	WVXOMPRLWLXFAP-AMQKJUDNSA-N
3-Hydroxybutyric acid	WHBMMWSBFZVSSR-UHFFFAOYSA-N
3-Hydroxymyristic acid	ATRNZOYKSNNPBF-UHFFFAOYSA-N
3-Hydroxypyridine	GRFNBEZIAWKNCO-UHFFFAOYSA-N
3-Hydroxyurs-12-en-23-oic acid	NBGQZFQREPIKMG-UHFFFAOYSA-N
3-Sulfopropanoic acid	OURSFPOXNNKX-UHFFFAOYSA-N
4,4-Dimethylcholest-8(9),24-dien-3.beta.-ol	CHGIKSSZNBCNDW-QGBOJXOESA-N
4-Cholestenone	NYOXRYYYXRWJDKP-GYKMGIIDSA-N
4-Hydroxyomeprazole sulfide	LVUFHVGKGMRSSW-UHFFFAOYSA-N
4-Pyridoxic acid	HXACOUQIXZGNBF-UHFFFAOYSA-N
5-(Dimethylamino)pentanoic acid	UYZSNVLEDLCWGU-UHFFFAOYSA-N
5-[(10Z)-14-(3,5-dihydroxyphenyl)tetradec-10-en-1-yl]benzene-1,3-diol	PFIQXUYXVYYERO-ALCCZGGFSA-N
5-Acetylamino-6-amino-3-methyluracil	POQOTWQIYYNXAT-UHFFFAOYSA-N
5-Hydroxyindole-3-acetic acid	DUUGKQCEGZLZNO-UHFFFAOYSA-N
5-O-Feruloylquinic acid	RAGZUCNPTLULOL-KQJPBSFVSA-N
5-Oxotetrahydro-2-furancarboxylic acid	QVADRSWDTZDDGR-UHFFFAOYSA-N
6-Cyclopentacycloundecenecarboxylic acid, 1,2,3,3a,4,5,6,7,8,9,12,12a-dodecahydro-3a,10-dimethyl-1-(1-methylethenyl)-	FVDVQQJLECWRKH-NVNXTCNLSA-N
6-Methyl-1,2,3-oxathiazin-4(3H)-one 2,2-dioxide	YGCFIWIQZPHFLU-UHFFFAOYSA-N
8-(3-Octyl-2-oxiranyl)octanoic acid	IMYZYCNQZDBZBQ-UHFFFAOYSA-N
9-Nitrooleate	CQOAKBVRRVHWKV-SAPNQHFASA-N
Allyl 4-amino-1-piperidinecarboxylate	XKLGRJGBMKOQDK-UHFFFAOYSA-N

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
alpha,alpha-Dilaurin	KUVAEMGNHJQSMH-UHFFFAOYSA-N
alpha-Hyodeoxycholic acid methyl ester	BWDRDVHYVJQWBO-QWXHOCAMSA-N
alpha-Tocopheryl acetate	ZAKOWWREFLAJOT-PDNQPUDYSA-N
Anacardic acid	ADFWQBGTDJIESE-UHFFFAOYSA-N
Aspartic acid	CKLJMWTZIZZHCS-UHFFFAOYSA-N
Asp-Pro	UKGGPJNBONZZCM-WDSKDSINSA-N
Bacilsocin	DIGHTWUQPWHBPG-UHFFFAOYSA-N
Benzenesulfonic acid, 4-(acetylamino)-	ZQPVMSLLKQTRMG-UHFFFAOYSA-N
Benzylidimethyldodecylammonium cation	CYDRXTMLKJDRQH-UHFFFAOYSA-N
Benzylidimethylstearylammomium cation	FWLORMQUOWCQPO-UHFFFAOYSA-N
beta-Hyodeoxycholic acid	DGABKXLVXPYZII-MMTMODRTSA-N
beta-Muricholic acid	DKPMWHFRUGMUKF-CRKPLTDNSA-N
beta-Sitosterol	KZJWDPNRJALLNS-VJSFXXLFSA-N
Bilirubin	BPYKTIZUTYGOLE-IFADSCNNSA-N
Biliverdin	QBUVFDKTZNUPP-BBROENKCSA-N
Bis-(3,4-dimethylbenzylidene)sorbitol)	YWEWWNPYDDHZDI-JKKTNRVSA-N
CAY10683	HTOYBIILVCHURC-UHFFFAOYSA-N
Chenodeoxycholic acid	RUDATBOHQWOJDD-BSWAIDMHSA-N
Cholan-24-oic acid, 12-hydroxy-3-oxo-	WMUMZOAFCDOTRW-UHFFFAOYSA-N
Cholan-24-oic acid, 12-hydroxy-3-oxo-, methyl ester	LOJPGRHPJBGMF-JNSWQHQSA-N
Cholestan-3-ol, (3 alpha,5 beta)-	QYIXCDOBOSTCEI-VZNZRSCWSA-N
Cholestan-3-one, (5 alpha)-	PESKGJQREUXSRR-UXIWKSVSA-N
Cholesterol	HVYWMOMLDIMFJA-DPAQBDIFSA-N
Cholesterol 3-sulfate	BHYOQNUELFTYRT-DPAQBDIFSA-N
cis,cis-9,12-Octadecadien-1-ol	JXNPEDYJTDQORS-HZJYTRNSA-N
cis-10-Nonadecenoic acid	BBOWBNNGUEWHNQZ-KTKRTIGZSA-N
cis-13-Eicosenoic acid	URXZXNYJPAJJOQ-FPLPWBNLSA-N
cis-Vaccenic acid	UWHZIFQPPBDJPM-FPLPWBNLSA-N
Citrulline	RHGKLRLOHDJJDR-UHFFFAOYSA-N
Cocamidopropyl betaine	MRUAUOIMASANKQ-UHFFFAOYSA-N
Crotonic acid	LDHQCZJRKOVOX-NSCUHMNNSA-N
Decaethylene glycol	DTPCFIHYYWYONMD-UHFFFAOYSA-N
Dehydropiperonaline	KAYVDASZRFLFRZ-PQECNABGSA-N
Deoxycholic acid	KXGVEGMKQFWNSR-LLQZFEROSA-N
D-erythro-Sphinganine	OTKJDMGTUTTYMP-ZWKOTPCHSA-N
D-Glucosyl-beta-1,1-N-palmitoyl-D-erythro-sphingosine	VJLLLMIZEJJZTE-NNTBDIJYSA-N
Didecyldimethylammonium	JGFDZZLUDWMUQH-UHFFFAOYSA-N
Dihomo-gamma-linolenic acid methyl ester	QHATYOWJCAQINT-JPFHKJGASA-N
Dimethyl azelate	DRUKNYVQGHETPO-UHFFFAOYSA-N
DL-beta-Hydroxypalmitic acid	CBWALJHXCJYTE-UHFFFAOYSA-N
DL-Indole-3-lactic acid	XGILAAMKEQUXLS-UHFFFAOYSA-N
DL-Serine, succinate (ester)	ZAHSBRLHJRVFAU-UHFFFAOYSA-N
D-Mannosamine	FZHXIRIBWMQPQF-KVTDHHQDSA-N
Dodecanedioic acid	TVIDDGXQYHWJXFK-UHFFFAOYSA-N
D-Sphingosine	WWUZIQURGPMPG-KRWOKUGFSA-N

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
Enalapril	GBXSMTUPTTWBMN-XIRDDKMYSA-N
Enalaprilat	LZFZMUMEGBBDT-CQEJZJMRPSA-N
Epilupeol	MQYXUWHLBZFQQO-ISZJTHHZSA-N
Ergocalciferol	MECHNRXZTMCUDQ-ANGGWTPUSA-N
Erioglaucine	CTRXdTYTAKVSM-UHFFFAOYSA-N
Erucamide	UAUDZVJPLUQNMU-KTKRTIGZSA-N
Erythrodiol	PSZDOEIIJFCFE-KWVOMAKGSA-N
Ethanesulfonic acid, 2-[(2,4-dihydroxy-3,3-dimethyl-1-oxobutyl)amino]-	IZRUXXTXKZAGQQ-UHFFFAOYSA-N
Fucosterol	OSELKOCHBMDKEJ-JUGJNGJRSA-N
Geranylinalool	IQDXAJNQKSIPGB-HQSZAHFGSA-N
Ginkgolic acid I	YXHVCZLWZYHSA-FPLPWBNLSA-N
Glu-Ile	SNFUTDLOCQQRQD-LKEWCRSYSA-N
Glycerol monooleate	RZRNAYUHWVFMP-KTKRTIGZSA-N
Glycerol trilauroate	VMPHSYLUJKZBJ-UHFFFAOYSA-N
Glycodeoxycholic acid	WVULKSPCQVQLCU-UHFFFAOYSA-N
Glycyl-L-norleucine	XVUIZOUTLADVIH-UHFFFAOYSA-N
Gly-Val	STKYPAFSDFAEPH-LURJTMIESA-N
Guanine	UYTPUPDQBNUYGX-UHFFFAOYSA-N
Heptadecasphinganine	KFQUQCFJDMSIJF-DLBZAZTESA-N
Ile-Glu	KTGFOCFYQZQVRJ-ACLDMZEESA-N
Ile-Phe	WMDZARSFSMZOQO-UHTWSYAYSA-N
Ile-Ser	TWVKGYNQQAUNRN-ACZMJKKPSA-N
Ile-Thr	DRCKHKZYDLJYFQ-YWIQKCBGSA-N
Ile-Val	BCXBIONYYJCSDF-CIUDSAMLSA-N
Isobutyric acid	KQNPQTWMSNSAP-UHFFFAOYSA-N
Kaurane-17,18-dioic acid, 18-methyl ester, (4 alpha,16 alpha)-	YDAVVXOXSSVVPF-BBBHLOGDSA-N
Lactosyl-Ceramide(d18:1/22:0)	QYWVASPEUXEHSHY-DYGYHFHFS-A-N
Laurylsulfuric acid	MOTZDAYCYVMXPC-UHFFFAOYSA-N
Linoleic Acid	OYHQOLUKZRVRURQ-HZJYTRNSA-N
Linoleic acid-biotin	TXYWCYIPXRNWJU-MJDXKYDGSA-N
Lithocholic acid	SMEROWZSTRWXGI-HVATVPOCSA-N
Lithocholylglycine	XBSQTYHEGZTYJE-OETIFKLTS-A-N
Lupeol	MQYXUWHLBZFQQO-QGTGJCAVSA-N
Methionine sulfoxide	QEFRNWWLZKMPFJ-YGVKFDHGSA-N
Methyl deoxycholate	ZHUOOEGSSFNTNP-JMKDMENQSA-N
Methyl hydrogen azelate	VVWPSAPZUZXYCM-UHFFFAOYSA-N
Methyl linolenate	DVWSXZIHSUZZKJ-YSTUJMKBSA-N
Myristyl sulfate	URLJMZWXTZTZRR-UHFFFAOYSA-N
N-(14-Methylpentadecanoyl)phenylalanine	WICAPTTWPBEVPW-UHFFFAOYSA-N
N-(6-Methyl-2-oxohexahydro-4-pyrimidinyl)urea	CZAUMIGWDFREBR-UHFFFAOYSA-N
N-(Octadecanoyl)sphing-4-enine-1-phosphocholine	LKQLRGMMMAHREN-NWBJSICCSA-N
N,N-Dimethylsphingosine	YRXOQXUDKDCXME-YIVRLKKSSA-N
N2-Isobutyryl-2'-deoxyguanosine	SIDXEQFMTMICKG-UHFFFAOYSA-N
N6-Palmitoyl-L-lysine	IWKZTTDNVPAHNP-FQEVTJZSA-N
N-Acetyl-beta.-D-mannosamine	OVRNDRQMDRJTHS-OZRXBAMSA-N

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
N-Acetyl dihydro sphingosine	CRJGESKKUOMBCT-VQTJNVASSA-N
N-Acetyl-D-norleucine	JDMCEGLQFSOMQH-SSDOTTWSA-N
N-Acetyl-L-glutamine	KSMRODHGGIIXDV-YFKPBYRVSA-N
N-Acetyl-L-glutamic acid	RFM MMV DNI PUKGG-YFKPBYRVSA-N
N-alpha-Acetyl-L-lysine	VEYYWZRYIYDQJM-ZETCQYMHS A-N
N-Benzyl-N,N-dimethyl-1-tetradecanaminium cation	WNBGYVXHFTYOB Y-UHFFFAOYSA-N
N-Docosanoyl-4-sphingenyl-1-O-phosphorylcholine	FJJANLYCZUNFSE-TWKUQIQBSA-N
N-epsilon-Acetyl-L-lysine	DTERQYGMUDWYAZ-ZETCQYMHS A-N
Nervonoyl ethanolamide	LISKWSFNVJTQKH-KTKRTIGZSA-N
N-Hexadecyl sulfate	LPTIRUACFKQDHZ-UHFFFAOYSA-N
N-Hexanoylsphingosine	NPRJSFWNFTXXQC-QFWQFVLDSA-N
Nitrobenzene	LQNUZADURLCDLV-UHFFFAOYSA-N
N-Lauroyl-D-erythro-sphinganine	UHWYQXNZIBLESO-URLMMPGGSA-N
N-L-gamma-Glutamyl-L-leucine	MYFMARDICOWMQP-UHFFFAOYSA-N
N-Methyl-L-phenylalanine	SCIFESDRCALIIM-VIFPVBQESA-N
N-Myristoylsphinganine	UDTSZXVRDXQARY-IOWSJCHKSA-N
N-Nervonoyl-D-erythro-sphingosylphosphorylcholine	WKZHECFHXLTOLJ-QYKFWSDSSA-N
N-Octanoylsphingosine	APDLCSPGWPLYEQ-WRBRXSDHSA-N
N-Oleoyl-4-sphingenine	OBFSLMLQPNKVRW-RHPAUOISSA-N
N-Oleoyl-D-erythro-sphinganine	MJQIARGPQMNBGT-WWUCIAQXSA-N
N-Oleoylethanolamine	BOWVQLFMWHZBEF-KTKRTIGZSA-N
Nonacthylene glycol	YZUUTMGDONTGTN-UHFFFAOYSA-N
Nonanedioic acid	BDJRBEYXGGNYIS-UHFFFAOYSA-N
N-Palmitoyl-D-sphingosine	YDNKGFDKKRU KPY-TURZORIXSA-N
N-Stearoylsphinganine	KZTJQXAANJHSCE-OIDHKYIRSA-N
N-Tetracosenoyl-4-sphingenine	VJSBNBBOSZDKB-KPEYJIHVS A-N
Octaethylene glycol	GLZWNFNQMJA ZGY-UHFFFAOYSA-N
Oleamide	FATBGEAMYMYZAF-KTKRTIGZSA-N
Oleoyl ethylamide	JZJYYCFYGPUMF-QXMHVHEDSA-N
Oleoylserotonin	LCQKHZYXPCLVBI-KTKRTIGZSA-N
Palmitoyl sphingomyelin	RWKUXQNLWDT SLO-GWQJGLRPSA-N
Palmitoyleicosapentaenoyl phosphatidylcholine	KLTHQS WIRFFBRI-KOQZQRJKSA-N
Palmitoyl-L-carnitine	XOMRRQXKHM YMOC-OAQYLSRUSA-N
Pantothenic acid	GHOKWGTUZJEAQD-UHFFFAOYSA-N
PEG Monooleate n8	RRMPJCDMVAUQGF-MDZDMXLPSA-N
PEG14	AKWFJQNBHYVIPY-UHFFFAOYSA-N
PEG16	OWTQQPNDSWCHOV-UHFFFAOYSA-N
Pheophorbide a	NSFLUUZQIAOOX-QEWKCGBTSA-N
Phe-Val	IEHDJWSAXBGJIP-RYUDHWBXSA-N
Piperabamide B	CHOLQJRIMZGPN C-QHKWOANTSA-N
Pipernonaline	PKLGRWSJB LGIBF-JMQWPVDRSA-N
Piperolein A	MIWPBXQTBYPJEF-XBXARRHUSA-N
Poly THF n8	RPGZMBUUQBRFFX-UHFFFAOYSA-N
Pregnenolone sulfate	DIJBBUIOWGGQOP-QGVNFLHTSA-N
Prostaglandin K2	LGMXPVXJSFPPTQ-DJUJBXLVSA-N

Table 4. Non-Certified Metabolite Identifications of Omnivore Stool by LC-MS/MS

Metabolite ID	InChiKey
Pyridoxine	LXNHXLLTXMVWPM-UHFFFAOYSA-N
Pyruvic acid	LCTONWCANYUPML-UHFFFAOYSA-N
Retrofractamide A	BPSWISYORIWKCT-FCGWLDPVSA-N
Riboflavin	AUNGANRZJHBGPY-SCRDCRAPSA-N
Sarsasapogenin	GMBQZIIUCVWOCĐ-WWASVFFGSA-N
Sebacic acid	CXMXRPHRNRROMY-UHFFFAOYSA-N
Stearamide	LYRFLYHAGKPMFH-UHFFFAOYSA-N
Stearic Acid	QIQXTHQIDYTFRH-UHFFFAOYSA-N
Stearoyl ethanolamide	OTGQIQQTPXJQRG-UHFFFAOYSA-N
Suberic acid	TYFQFWVCELRYAO-UHFFFAOYSA-N
Sucralose	BAQAVOSOZGMPRM-QBMZZYIRSA-N
Sucrose	CZMRCDWAGMRECN-UGDNZRGBSA-N
Tacrolimus	QJJXYPPXXYFBGM-LJIGMGMYSA-N
Tauoursodeoxycholic acid	BHTRKEVKTKCXOH-OGTVOWCVSA-N
Termitomycamide E	JTSNNDBVDQFVEG-HZJYTRNSA-N
Testosterone sulfate	WAQBISPOEAOCOG-DYKIIFRCSA-N
Tetradecanedioic acid, 5,6-dihydroxy-	JCOCIXAHAFALHI-UHFFFAOYSA-N
Tetrahydroharman-3-carboxylic acid	ZUPHXNBLQCSEIA-UHFFFAOYSA-N
Thiamine cation	JZRWCGZRTZMZEH-UHFFFAOYSA-N
Threonine	AYFVYJQAPQTCCC-UHFFFAOYSA-N
Thr-Glu	BECPPKYKPSRKCP-JCGDXUMPSA-N
Thr-Leu	BQBCIBCLXBKYHW-BIIVOSGPSA-N
Tildipirosin	HNDXPZPJZGTJLJ-UEJFNEDBSA-N
Tomatidine	XYNPYHXGMWJBLV-KLPIGKMYSA-N
trans-Petroselinic acid	CNVZJPUDSLNTQU-OUKQBFOZSA-N
trans-Vaccenic acid	UWHZIFQPPBDJPM-BQYQJAHWSA-N
Tridemorph	YTOPFCCWCSOHFV-UHFFFAOYSA-N
Triethylene glycol bis(2-ethylhexanoate)	FRQDZJMEHSJOPU-UHFFFAOYSA-N
Trihydroxycholestanoic acid	CNWPIIOQKZNXB-VCVMUKOKSA-N
Trilinolein	HBOQXIRUPVQLKX-BBWANDEASA-N
Tuberonic acid	RZGFUGXQKMEMOO-BSANDHCLSA-N
Uracil	ISAKRJDNUQOIC-UHFFFAOYSA-N
Uric acid	LEHOTFFKMJEONL-UHFFFAOYSA-N
Urobilin	KDCCOOGTVSRCHX-UYMYUHGCSA-N
Urocanic acid	LOIYMIARKYCTBW-OWOBJTEDSA-N
Val-Ala	HSRXSKHRSXRCFC-WDSKDSINSA-N
Val-Glu	UPJONISHZRADBH-POYBYMJQSA-N
Val-Ile	PNVLFWFYAPWAQMU-DJLDLDEBSA-N
Val-Leu	XCTHZFGSVQBHW-UHFFFAOYSA-N
Val-Val	KRNYOVHEKOBTEF-UHFFFAOYSA-N
Xanthine	LRFVTYWOQMYALW-UHFFFAOYSA-N
Xanthurenic acid	FBZONXHGGPHHIY-UHFFFAOYSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
alpha-Tocopherol	GVJHHUAWPYXKBD-IEOSBIPESA-N
(15:3)-Anacardic acid	QUVGEKPNSCFQIR-UTOQUPLUS-A-N
(1S,2S,3aR,4S,5S,9R,11R,13aS)-4,9,11-tris(acetoxy)-3a-hydroxy-2,5,8,8,12-pentamethyl-1H,2H,3H,3aH,4H,5H,8H,9H,10H,11H,13aH-cyclopenta[12]annulen-1-yl benzoate	BRVXVMOWTHQKHC-OTOOIOIQSA-N
(2-{4-[(R)-(4-chlorophenyl)(phenyl)methyl]-1-piperazinyl}ethoxy)acetic acid	ZKLPARSLTMPFCP-OAQYLSRUSA-N
(2E,4E,6E)-11-(1,3-Benzodioxol-5-yl)-N-(2-methylpropyl)undeca-2,4,6-trienamide	ITXVWRWWSDXOY-HNZFQPFYSA-N
(2S)-2-[(3-Methylbutanoyl)amino]pentanedioic acid	HCVIJONZMYVLAW-ZETCQYMHS-A-N
(2S,-cis)-5-Benzyl-3,6-dioxo-2-piperazineacetic acid	VNHJXYUDIBQDDX-UWVGGRQHSA-N
(3-beta)-Allopregnanolone sulfate	MENQCIVHHONJLU-FZCSVUEKSA-N
(3-Oxo-2,3-dihydro-4H-1,4-benzoxazin-4-yl)acetic acid	POGLODLVBYOXAO-UHFFFAOYSA-N
(4-Methylphenyl)oxidanesulfonic acid	WGNAKZGUSRVWRH-UHFFFAOYSA-N
(4S)-4-Amino-5-hydroxypentanoic acid	JPYGFLFUDLRNKX-BYPYZUCNSA-N
(6E,10Z,14E)-6,14-Dimethyl-3-methylidene-2-oxo-3a,4,5,8,9,12,13,15a-octahydrocyclotetradeca[b]furan-10-carboxylic acid	SORYERHBQFTRIK-AMVXUGKJSA-N
(Carboxymethyl)dodecyldimethylammonium cation	DVEKCXOJTLDBFE-UHFFFAOYSA-O
1,1-Dimethyl-2,3,4,9-tetrahydro-1H-beta-carboline-3-carboxylic acid	CWGHZIOJFVTEPN-UHFFFAOYSA-N
1,2-Dihexadecanoyl-3-(9Z-octadecenoyl)-sn-glycerol	YHMDGPZOSGBQRH-YYSBDFVPSA-N
1,2-Dilinoleoyl-sn-glycero-3-phosphocholine	FVXDQWZBHIXIEJ-LNDKUQBDSA-N
1,2-Dimyristoyl-sn-glycerol	JFBCSFJKETUREV-LJAQVGFWSA-N
1,2-Dioctadecanoyl-sn-glycerol	UHUSDOQQWJGJQS-QNGWXLTQSA-N
1,2-dioleoyl-sn-glycero-3-phosphatidylcholine	SNKAWJBQDLSFF-NVKMUCNASA-N
1,2-Dioleoyl-sn-glycero-3-phosphoethanolamine	MWRBNPKJOOWZPW-NYVOMTAGSA-N
1,2-Dioleoyl-sn-glycero-3-phosphoethanolamine-N,N-dimethyl	XHPZRQBHFQVLEJ-UNUIOPIBSA-N
1,2-Dioleoyl-sn-glycerol	AFSHUZFNMVJNKX-LLWMBOQKSA-N
1,2-Dipentadecanoyl-sn-glycero-3-phosphocholine	LJARBVLD SOWRJT-PSXMRANNSA-N
1,3-Diolein	DRAWQKGUORNASA-CLFAGFIQSA-N
1,7-Dimethyluric acid	NOFNCLGCUIJPKU-UHFFFAOYSA-N
12-Methoxycarnosic acid	QQNSARJGBPMQDI-MZVUKIKXSA-N
13-cis-Retinol	FPIPGXGPPPQFEQ-HWCYFHEPSA-N
18-beta-Glycrrhetic acid	MPDGHEJMBKOTSU-YKLVYJNSSA-N
1-Arachidoyl-2-hydroxy-sn-glycero-3-phosphocholine	UATOAILWGVYRQS-HHHXNRGSA-N
1H-Indole-3-propanoic acid	GOLXRNDWAUTYKT-UHFFFAOYSA-N
1-Methyl-3,6-(1H,2H)-pyridazinedione	UAECOHJYXUJDOF-UHFFFAOYSA-N
1-Methyluric acid	QFDRTQONISXGJA-UHFFFAOYSA-N
1-Monolinolenin	GGJRAQULURVT AJ-PDBXOOCHSA-N
1-Octadecanoyl-2-octadecenoyl-sn-glycero-3-phosphocholine	ATHVAWF AEPPLPPQ-QPOMNCEOSA-N
1-O-Hexadecyl-2-O-acetyl-sn-glyceryl-3-phosphorylcholine	HVAUUPRFYPCOCA-AREMUKBSSA-N
1-Oleoyl-2-linoleoyl-rac-glycerol	BLVZPYMHXLHG-RQOIEFAZSA-N
1-Oleoyl-2-palmitoyl-rac-glycerol	DOZKMFVMCATMEH-ZCXUNETKSA-N
1-Oleoyl-sn-glycero-3-phosphoethanolamine	PYVRVRVFLRNJLY-MZMPXXGTSA-N
1-Palmitoyl-2-docosahexaenoyl-sn-glycero-3-phosphocholine	IESVDEZGAHUQJU-ZLBXKVHBSA-N
1-Palmitoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine	YVYMBNSKXOXS K -HXUWFJFHSA-N
1-Palmitoyl-2-linoleoyl-rac-glycerol	SVXWJFFKLMLOHO-BCTR XSSUSA-N
1-Palmitoyl-2-linoleoyl-sn-glycero-3-phosphocholine	JLPULHDHAOZNQI-ZTIMHPMXSA-N
1-Palmitoyl-2-oleoyl-3-linoleoyl-rac-glycerol	KGLAHZTWGPHKFF-FBSASISJSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
1-Palmitoyl-2-oleoyl-sn-glycerol	YEJYLHKQOBOSCP-OZKTZCCSA-N
1-Palmitoyl-sn-glycero-3-phosphocholine	ASWBNKHCZGQVJV-HSZRJFAPSA-N
1-Pentadecanoyl-sn-glycero-3-phosphocholine	RJZVWDTYEWCUAR-JOCHJYFZSA-N
1-Stearoyl-2-hydroxy-sn-glycero-3-phosphocholine	IHNKQIMGVNPMTTC-RUZDIDTESA-N
1-Stearoyl-2-hydroxy-sn-glycero-3-phosphoethanolamine	BBYWOYAFBUOUFP-JOCHJYFZSA-N
1-Stearoyl-2-linoleoyl-sn-glycero-3-phosphoethanolamine	YDTWOEYVDRKKCR-KNERPIHHSAA-N
1-Stearoyl-2-oleoyl-sn-glycero-3-phosphocholine	ATHVAWFAEPLPPQ-VRDBWYNSSA-N
2-( {3-Methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl}methyl}sulfanyl)-1H-benzimidazole	CCHLMSUZHFPSFC-UHFFFAOYSA-N
2'-(4-Methylumbelliferyl)-alpha-D-N-acetylneurameric acid	KKDWIUBUSOPGC-GKHMPSLRSA-N
2-(Hexadecylamino)ethanol	SIFHZKKXWMJWOB-UHFFFAOYSA-N
2-(O-beta-D-Glucopyranosyl)atractyligenin	ZUDBDCCBPZHGAEL-ICRASABDSA-N
2,3,4,9-Tetrahydro-1H-beta-carboline-3-carboxylic acid	FSNCEEGOMTYXKY-UHFFFAOYSA-N
2,3-Dihydroxypropyl octadecanoate	VBICKXHEKHSIBG-UHFFFAOYSA-N
2,4-Bis(1,1-dimethylethyl)phenol phosphate	GUDSEWUOWPVZPC-UHFFFAOYSA-N
2-[ (2R,4aS,8S,8aS)-8-{2-[ (4aS,7R,8aR)-7-(1-Carboxyvinyl)-1-hydroxy-4a-methyl-2-oxo-1,2,4a,5,6,7,8,8a-octahydro-1-naphthalenyl]ethyl}-4a-methyl-7-oxo-1,2,3,4,4a,7,8,8a-octahydro-2-naphthalenyl]acrylic acid	BSSWIRVAMSGQMG-RTTXQYISSA-N
2-[3-[3-Hydroxy-4-(4-hydroxyphenyl)-2,5-dimethoxyphenyl]-5-oxo-2H-furan-2-yl]acetic acid	CLNCCYGZTAZYLJ-UHFFFAOYSA-N
24,25-Epoxylanost-7-ene-3,23-diol	UMTABACRBSGXGK-UHFFFAOYSA-N
2'-Deoxyadenosine	OLXZPDWKRYJJZ-RRKCRQDMA-N
2'-Deoxyinosine	VGONTNSXDCQUGY-JBXZBNISA-N
2-Hydroxypalmitic acid	JGHSBPIZNUXPLA-UHFFFAOYSA-N
2-Linoleoyl-1-palmitoyl-sn-glycero-3-phosphoethanolamine	HBZNVZIRJWODIB-NHCUFCNUSA-N
2-Oleoyl-1-palmitoyl-sn-glycero-3-phosphocholine	WTJKGGKOPKCXLL-VYOBOKEXSA-N
2-Palmitoyl-rac-glycerol	BBNYCLAREVXOSG-UHFFFAOYSA-N
2-Thio-acetyl MAGE	SJNRNWXBXZOALQ-OAQYLSRUSA-N
3-(1H-Imidazol-4-yl)propanoic acid	ZCKYOWGFRHAZIQ-UHFFFAOYSA-N
3-(3-Hydroxyphenyl)-2-oxopropanoic acid	PNYWALDMLUDDTA-UHFFFAOYSA-N
3-(Tetradecylamino)-1-propanol	FDZNQCUTOMWCJE-UHFFFAOYSA-N
3,7,12-Trihydroxycholan-24-oic acid (stereoisomer unknown)	BHQCQFFYRZLCQQ-UHFFFAOYSA-N
3,7-Dimethyluric acid	HMLZLHKHNBLJD-UHFFFAOYSA-N
3,7-Dimethyluric acid	HMLZLHKHNBLJD-UHFFFAOYSA-N
3-[5-(2-Methylpropyl)-3,6-dioxopiperazin-2-yl]propanoic acid	CSRXCVLPMJBQIM-UHFFFAOYSA-N
3-Hydroxyurs-12-en-23-oic acid	NBGQZFQREPIKMG-UHFFFAOYSA-N
3-Methylxanthine	GMSNIKWWOQHZGF-UHFFFAOYSA-N
4-(3,4-Dihydroxyphenyl)-6,7-dihydroxy-2-naphthalenecarboxylic acid	ZSKDVJYWOHBGNI-UHFFFAOYSA-N
4-Amino-5-methoxy-2-methylbenzenesulfonic acid	JBAVAJIXZVRJHT-UHFFFAOYSA-N
4-Cholestenone	NYOXRYYYXRWJDCKP-GYKMGIIDSA-N
4-Ketopimelic acid	UDDSEESQRGPVIL-UHFFFAOYSA-N
4-Oxododecanedioic acid	HHXMOTDTSDYYEI-UHFFFAOYSA-N
4-Pyridoxic acid	HXACOUQIXZGNBF-UHFFFAOYSA-N
5,6-Dihydouridine	ZPTBLXKRQACLCR-XVFCMESISA-N
5-Hydroxyindole-3-acetic acid	DUUGKQCEGZLZNO-UHFFFAOYSA-N
6-Heptadecen-16-yne-1,2,4-triol	YPRUUOUDKJWVMW-VAWYXSNFSA-N
6-Methyl-1,2,3-oxathiazin-4(3H)-one 2,2-dioxide	YGCFIWQZPHFLU-UHFFFAOYSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
8-(3-Octyl-2-oxiranyl)octanoic acid	IMYZCNQZDBZBQ-UHFFFAOYSA-N
8-Acetamido-2-methyl-7-oxononanoic acid	UALLEVOGEQZKSX-UHFFFAOYSA-N
9,10-Dihydroxy-12Z-octadecenoic acid	XEBKSQSGNGRGDW-CJWPDFJNSA-N
9-Oxo-10(E),12(E)-octadecadienoic acid	LUZSWWYKKLTDHU-SIGMCMEVSA-N
9Z,11E,13E-Octadecatrienoic acid	CUXYLFPMQMFGLP-WPOADVJFSA-N
Adipic acid	WNLRTRBMRJNCN-UHFFFAOYSA-N
Allyl 4-amino-1-piperidinecarboxylate	XKLRGRJGBMKOQDK-UHFFFAOYSA-N
alpha,alpha-Dilaurin	KUVAEMGNHJQSMH-UHFFFAOYSA-N
alpha-Hyodeoxycholic acid methyl ester	BWDRDVHYVJQWBO-QWXHOCAMSA-N
alpha-Tocopheryl acetate	ZAKOWWREFLAJOT-PDNQPUDYSA-N
Anacardic acid	ADFWQBGTDJIESE-UHFFFAOYSA-N
Anacardic acid diene	KAOMOVYHGLSFHQ-UTOQUPLUSA-N
Asn-Pro	GADKFYNESXNRLLC-WDSKDSINSA-N
Asp-Pro	UKGGPJBONZZCM-WDSKDSINSA-N
Asp-Val	CPMKYMGYUFOHS-CAHLUQPWSA-N
Azaspiracid-8	VTXJIDBQMAXDIY-CQQSUDGLSA-N
Bacilysocin	DIGHTWUQPWHBPG-UHFFFAOYSA-N
Benzenesulfonic acid, 4-(acetylamino)-	ZQPVMSSLKQTRMG-UHFFFAOYSA-N
Benzylidimethyldodecylammonium cation	CYDRXTMLKJDRQH-UHFFFAOYSA-N
Benzylidimethylstearylammonium cation	FWLORMQUWCQPO-UHFFFAOYSA-N
beta-Cryptoxanthin	DMASLKHVQRHNES-FKKUPVFPSA-N
beta-Hyodeoxycholic acid	DGABKXLVXPYZII-MMTMODRTSA-N
beta-Sitosterol	KZJWDPNRJALLNS-VJSXXLFSA-N
Bilirubin	BPYKTIZUTYGOLE-IFADSCNNSA-N
Bis-(3,4-dimethylbenzylidenesorbitol)	YWEWWNPYDDHZDI-JKKTNRVSA-N
Chenodeoxycholic acid	RUDATBOHQWOJDD-BSWAIDMHSA-N
Cholan-24-oic acid, 12-hydroxy-3-oxo-	WMUMZOAFCDOTRW-UHFFFAOYSA-N
Cholan-24-oic acid, 12-hydroxy-3-oxo-, methyl ester	LOJPGRHPJBGMMF-JNSWQHQSA-N
Cholestan-3-ol, (3 alpha,5 beta)-	QYIXCDOBOSTCEI-VZNZRSCWSA-N
Cholesterol	HVYWMOMLDIMFJA-DPAQBDIFSA-N
Cholesterol 3-sulfate	BHYOQNUELFTYRT-DPAQBDIFSA-N
Cholic acid	BHQCQFFYRZLCQQ-OELDTZBJSN-A
cis,cis-9,12-Octadecadien-1-ol	JXNPEDYJTDQORS-HZJYTTRNSA-N
cis-Vaccenic acid	UWHZIFQPPBDJPM-FPLPWBNLSA-N
Citrulline	RHGKLRLQHDDJDR-UHFFFAOYSA-N
Cocamidopropyl betaine	MRUUAUOIMASANKQ-UHFFFAOYSA-N
D-alpha-Tocopherol succinate	IELOKBJPULMYRW-NJVLOCASA-N
Dehydropiperonaline	KAYVDASZRFLFRZ-PQECNABGSA-N
Deoxycholic acid	KXGVEGMKQFWNSR-LLQZFEROSA-N
D-erythro-N-Stearoylsphingosine	WWUZIQURGPMPG-KRWOKUGFSA-N
D-erythro-Sphinganine	OTKJDMGTUTTYMP-ZWKOTPCHSN-A
D-Glucosyl-beta-1,1-N-palmitoyl-D-erythro-sphingosine	VJLLLMIZEJJZTE-NNTBDIJYSA-N
Didymin	RMCRQBAILCLJGU-HIBKWJPLSA-N
Dihydrosaatzein	JHYXBPPMXZIHKG-UHFFFAOYSA-N
Dimethyl azelate	DRUKNYVQGHETPO-UHFFFAOYSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
Di-tert-butyl L-glutamate	NTUGPDFKMHCCJ-VIFPVBQESA-N
DL-beta-Hydroxypalmitic acid	CBWALJHXHCJYTE-UHFFFAOYSA-N
DL-Indole-3-lactic acid	XGILAAMKEQUXLS-UHFFFAOYSA-N
DL-Serine, succinate (ester)	ZAHSBRLHJRVFAU-UHFFFAOYSA-N
Docosanoyl ethanolamide	XHFWUECSNJWBJU-UHFFFAOYSA-N
Dodecanedioic acid	TVIDDXQYHWJXFK-UHFFFAOYSA-N
Ergocalciferol	MECHNRXZTMCUDQ-ANGGWTPUSA-N
Erucamide	UAUDZVJPLUQNMU-KTKRTIGZSA-N
Formamide, N-[(4-amino-2-methyl-5-pyrimidinyl)methyl]-N-[4-hydroxy-1-methyl-2-(propylidithio)-1-buten-1-yl]-	UDCIYVVYDCXLSX-SDNWHVSQSA-N
Gabapentin	UGJMXCAKCUNAIE-UHFFFAOYSA-N
Gamithromycin	VWAMTBXLZPEDQO-UZSBJOJWSA-N
gamma-Glu-Phe	XHHOHZPNYFQJKL-QWRGUYRKSA-N
Genkwanin	JPMYFOBNRRGFNO-UHFFFAOYSA-N
Ginkgolic acid I	YXHVCZZLWZYHSA-FPLPWBNLSA-N
Gln-Val	MRVYVEQPNDSWLH-XPUUQOCRSA-N
Glu-Glu	KOSRFJWDECSPRO-UHFFFAOYSA-N
Glu-Leu	YBAFDPAUTYYRW-SFYZADRCSA-N
Glycerol monooleate	RZRNAYUHWVFMP-KTKRTIGZSA-N
Glycerol trilaurate	VMPHSYLUKZBQJJ-UHFFFAOYSA-N
Glycerol trioleate	PHYFQTYBJUILEZ-IUPFWZBJS-A-N
Glycodeoxycholic acid	WVULKSPCQVQLCU-UHFFFAOYSA-N
Gly-Pro	KZNQNBZMBZQJQO-YFKPBRYRVA-N
Gly-Val	STKYPAFSDFAEPH-LURJTMIESA-N
Guanine	UYTPUPDQBNUYGX-UHFFFAOYSA-N
Guanosine	NYHBQMYGNKIUIF-UUOKFMHZSA-N
Guanosine 3',5'-cyclic monophosphate	ZOOGRGPOEVQQDX-BDXYJKHTSA-N
Guineensine	FPMPOFBHEYSSYDQ-AUVZEIHS-A-N
Heptadecasphinganine	KFQUQCFJDMSIJF-DLBZAZTESA-N
His-Pro	LNCFUHAPNTYMJB-IUCAKERBSA-N
Histidine	HNDVDQJCIGZPNO-UHFFFAOYSA-N
Ile-Glu	KTGFOCFYOZQVRJ-ACLDMZEEA-N
Ile-Phe	WMDZARSFSMZOQO-UHTWSYAYSA-N
Ile-Thr	DRCKHKZYDLJYFQ-YWIQKCBGSA-N
Ile-Val	BCXBIONYYJCSDF-CIUDSAMLSA-N
Inositol hexanicotinate	MFZCIDXOLLEMOO-GYSGTQPESA-N
Lactosyl-Ceramide(d18:1/22:0)	QYWVASPEUXEHSHY-DYGYHFHFS-A-N
Laurylsulfuric acid	MOTZDAYCYVMXPC-UHFFFAOYSA-N
Leu-Leu	LCPYQJIKPJDLLB-ZJUUUORDSA-N
Leu-Pro	VTJUNIYRYIAIH-F-IUCAKERBSA-N
Linoleic acid-biotin	TXYWCIIYXRNWJU-MJDXKYDGSA-N
Linoleoyl ethanolamide	KQXDGUVSAQARU-HZJYTTRNSA-N
Lithocholic acid	SMEROWZSTRWXGI-HVATVPOCSA-N
Lumichrome	ZJTJUVIJVLLGSP-UHFFFAOYSA-N
Lysine	KDXKERNNSBIXSRK-UHFFFAOYSA-N
Lys-Leu	ATIPDCIQTUXABX-UWVGGRQHSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
Lys-Pro	AIXUQKMMBQJZCU-IUCAKERBSA-N
Methionine sulfoxide	QEFRNW WLZKMPFJ-YGVKFDHGSA-N
Methyl linolenate	DVWSXZIHSUZZKJ-YSTUJMKBSA-N
Met-Pro	DZMFGQBRYWJOR-YUMQZZPRSA-N
Met-Val	BJFJQOMZCSHBMY-SFYZADRCSA-N
Monobehenin	OKMWKBLSFKFYGZ-UHFFFAOYSA-N
Myristyl sulfate	URLJMZW TXTZRR-UHFFFAOYSA-N
N-(14-Methylpentadecanoyl)phenylalanine	WICAPTTWPBEVPW-UHFFFAOYSA-N
N-(2-Amino-4-methylpentanoyl)phenylalanine	KFKWRHQ BZQICHA-UHFFFAOYSA-N
N,N-Dimethylsphingosine	YR XOQXUDKDCXME-YIVRLKKSSA-N
N2-Isobutyryl-2'-deoxyguanosine	SIDXEQFMTMICKG-UHFFFAOYSA-N
N6-Palmitoyl-L-lysine	IWKZTTDNVPAHNP-FQEVTJZSA-N
N-Acetyl dihydro sphingosine	CRJGESKKUOMBCT-VQTJNVASSA-N
N-Acetyl-L-alanine	KTHDTJVBEPMML-UHFFFAOYSA-N
N-Acetyl-L-aspartic acid	OTCCIMWXFLJLIA-BYPYZUCNSA-N
N-Acetyl-L-glutamic acid	RFMMMVNDNIPUKGG-YFKPBYRVSA-N
N-Acetyl-L-tyrosine	CAHKINHBCWCHCF-JTQLQIEISA-N
N-Acetylputrescine	KLZGKIDSEJWEDW-UHFFFAOYSA-N
N-Acetyltyramine	ATDWJOOPFDQZNK-UHFFFAOYSA-N
Nadolol	VWPOSFSPZNDTMJ-UCWKZMIHSA-N
N-alpha-Acetyl-L-lysine	VEYYWZRYIYDQJM-ZETCQYMHS A-N
N-Benzyl-N,N-dimethyl-1-tetradecanaminium cation	WNBGYVXHFTYOBY-UHFFFAOYSA-N
N-Desmethylloperamide	ZMOPTLXEYOVARP-UHFFFAOYSA-N
N-Docosanoyl-4-sphingenyl-1-O-phosphorylcholine	FJJANLYCZUNFSE-TWKUQIQBSA-N
N-Lauroyl-D-erythro-sphinganine	UHWYQXNZIBLESO-URLMMPGGSA-N
N-L-gamma-Glutamyl-L-leucine	MYFMARDICOWMQP-UHFFFAOYSA-N
N-Methyl-L-phenylalanine	SCIFESDR CALIJM-VIFPV BQESA-N
N-Oleoyl-4-sphingenine	OBFSLMQLPNKVRW-RHPAUOISSA-N
N-Oleoyl-D-erythro-sphinganine	MJQIARGPQMNBGT-WWUCIAQXSA-N
N-Palmitoyl-D-sphingosine	YDNKGFDKKRUKPY-TURZORIXSA-N
N-Palmitoyltryptamine	YZWBXGMMZOEBAN-UHFFFAOYSA-N
N-Stearoylsphinganine	KZTJQXAANJHSCE-OIDHKYIRSA-N
N-Tetracosenoyl-4-sphingenine	VJSBNBBOSZDKB-KPEYJIHVS A-N
Oleanolic acid	MIJYXULNPSFWEK-GTOFXWBISA-N
Oleic acid	ZQPPMHVWECSIRJ-KTKRTIGZSA-N
Oleoyl ethanolamide	BOWVQLFMWHZBEF-KTKRTIGZSA-N
Oleoyl ethylamide	JZJYYCFYGXPUMF-QXMHVHEDSA-N
Oleyl sulfate	ZUBJEHHGZYTRPH-KTKRTIGZSA-N
Palmitoyl ethanolamide	HXYVTAGFYLMHSO-UHFFFAOYSA-N
Palmitoyl sphingomyelin	RWKUXQNLWDT SLO-GWQJGLRPSA-N
Palmitoyleicosapentaenoyl phosphatidylcholine	KLTHQS WIRFFBRI-KOQZQRJKSA-N
Pantothenic acid	GHOKWGTUZJEAQD-UHFFFAOYSA-N
PEG15	ILLKMACMBHTSHP-UHFFFAOYSA-N
PEG16	OWTQQPNDSWCHOV-UHFFFAOYSA-N
Pentacosanoic acid	MWMPEAHGXCSMY-UHFFFAOYSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
Pheophorbide a	NSFSLUUZQIAOOX-QEWKCGBTSA-N
Phe-Val	IEHDJWSAXBGJIP-RYUDHWBXSA-N
Phytosphingosine 1-phosphate	AYGOSKULTISFCW-KSZLIROESA-N
Piperine	MXXWOMGUGJBKIW-YPCIICBESA-N
Pregnanetriol	SCPADBBISMMJAW-UHHUKTEYSA-N
Pregnenolone sulfate	DIJBBUIOWGGQOP-QGVNFLHTSA-N
Pro-Val	AWJGUZSYVIVZGP-YUMQZZPRSA-N
Riboflavin	AUNGANRZJHBGPY-SCRDCRAPSA-N
Ricinoleic acid	WBHHMMIMDMUBKC-QJWNTBNXSA-N
Saccharin	CVHZOJJKTDOEJC-UHFFFAOYSA-N
Secaliferol	FCKJYANJHNLEEP-XRWYNYHCSA-N
Ser-Pro	WBAXJMCUFIXCNI-WDSKDSINSA-N
Sertraline	VGKDLMBJGBXTGI-YVEFUNNKSA-N
Stearamide	LYRFLYHAGKPMFH-UHFFFAOYSA-N
Stearoyl ethanolamide	OTGQIQQTPXPQJQRG-UHFFFAOYSA-N
Stercobilin	TYOWQSLRVAUSMI-WKULSOCRSA-N
Stigmastadienone	MKGZDUKUQPPHFMDPZQLQDSA-N
Suberic acid	TYFQFWVCELRYAO-UHFFFAOYSA-N
Sucralose	BAQAVOSOZGMPRM-QBMZZYIRSA-N
Termitomycamide E	JTSNNDBVDQFVEG-HZJYTRNSA-N
Terrestrisamide	CHEMZHJQHCVLFI-MKICQXMISA-N
Tetradecanedioic acid	HQHCYKULIHKCEB-UHFFFAOYSA-N
Tetradecanedioic acid, 5,6-dihydroxy-	JCOCIXAHAFALHI-UHFFFAOYSA-N
Tetrahydroharman-3-carboxylic acid	ZUPHXNBLQCSEIA-UHFFFAOYSA-N
Thiamine cation	JZRWCZRTZMZEH-UHFFFAOYSA-N
Threonine	AYFVYJQAPQTCCC-UHFFFAOYSA-N
Thr-Leu	BQBCIBCLXBKYHW-BIIVOSGPSA-N
Thr-Val	CKHWEVXPLJBEOZ-QYNIQEEDSA-N
Tomatidine	XYNPYHXGMWJBLV-KLPIGKMYSA-N
trans-Petroselinic Acid	CNVZJPUDSLNTQU-OUKQBFOZSA-N
trans-Vaccenic acid	UWHZIFQPPBDJPM-BQYQJAHWSA-N
Tridemorph	YTOPFCCWCSOHFV-UHFFFAOYSA-N
Trihydroxycholestanoic acid	CNWPIIOQKZNXB-VCVMUKOKSA-N
Trilinolein	HBOQXIRUPVQLKX-BBWANDEASA-N
Tyr-Pro	VNYDHJARLHNEGA-RYUDHWBXSA-N
Tyr-Val	OYOQKMOWUDVWCR-RYUDHWBXSA-N
Ubiquinone 9	UUGXJSBPSRROMU-WJNLUYJISA-N
Uracil	ISAKRJDGNUQOIC-UHFFFAOYSA-N
Uric acid	LEHOTFFKMJEONL-UHFFFAOYSA-N
Urobilin	KDCCCOOGTVSRCHX-UYMYUHGCSA-N
Urocanic acid	LOIYMIARKYCTBW-OWOBJTEDSA-N
Val-Glu	UPJONISHZRADBH-POYBYMJQSA-N
Val-Pro	GIAZPLMMQOERPN-YUMQZZPRSA-N
Val-Val	KRNYOVHEKOBTEF-UHFFFAOYSA-N
Valylphenylalanine	GJNDXQBALKCYSZ-UHFFFAOYSA-N

Table 5. Non-Certified Metabolite Identifications of Vegetarian Stool by LC-MS/MS

Metabolite	InChiKey
Victoria Pure Blue BO	ALMMLSQBERCMRB-UHFFFAOYSA-O
Xanthine	LRFVTYWQMYALW-UHFFFAOYSA-N

Table 6. Non-Certified Metabolite Identifications of Omnivore Stool by NMR

Metabolite	InChiKey
(3-carboxypropyl)trimethylammonium <sup>(a)</sup>	JHPNVNIEXXLNTR-UHFFFAOYSA-O
1,3-Dihydroxyacetone <sup>(b)</sup>	RXKJFZQQPQGTFL-UHFFFAOYSA-N
1,7-Dimethyluric acid <sup>(a)</sup>	NOFNCLGCUJJPKU-UHFFFAOYSA-N
2-Aminobutyrate <sup>(a)</sup>	QWCKQJZIFLGMSD-UHFFFAOYSA-N
2'-Deoxyuridine <sup>(a)</sup>	MXHRCPNRJAMMIM-UHFFFAOYSA-N
2-Methylbutyrate <sup>(a)</sup>	WLAMNBUDJVNPJU-BPYZUCNSA-N
3-Hydroxyphenylacetate <sup>(a)</sup>	FVMDYYGIDFPZAX-UHFFFAOYSA-N
3-Methyl-2-oxovalerate <sup>(a)</sup>	JVQYSWDUAOAHF M-UHFFFAOYSA-M
3-Phenylpropionate <sup>(a)(b)</sup>	XMIIGOLPHOKFCH-UHFFFAOYSA-N
4-Hydroxyphenylacetate <sup>(a)</sup>	XQXPVBIMDBYFF-UHFFFAOYSA-M
4-Hydroxyphenylpropionate <sup>(a)</sup>	ZHMMPVANGNPCBW-UHFFFAOYSA-M
5-Aminopentanoate <sup>(a)</sup>	JJMDCOVVWQOJGCB-UHFFFAOYSA-M
Acetate <sup>(a)(b)</sup>	QTBSBXVTEAMEQO-UHFFFAOYSA-M
Alanine <sup>(a)(b)</sup>	QNAYBMKLOCPYGJ-UHFFFAOYSA-N
Alpha-ketoisovaleric acid <sup>(a)</sup>	QHKABHOOEWYVLI-UHFFFAOYSA-N
Aminocaproic acid <sup>(a)</sup>	SLXKOJOQWFED-UHFFFAOYSA-N
Arabinose <sup>(a)(b)</sup>	SRBFZHDQGSBBOR-HWQSCIPKSA-N
Aspartate <sup>(a)(b)</sup>	CKLJMWTZIZZHCS-UHFFFAOYSA-L
Beta-Alanine <sup>(a)</sup>	UCMIRNVEIXFBKS-UHFFFAOYSA-N
Butyrate <sup>(a)(b)</sup>	FERIUCNNQQJTOY-UHFFFAOYSA-M
Cadaverine <sup>(a)(b)</sup>	VHRGRCVQAFMJZ-UHFFFAOYSA-N
Caprylate <sup>(a)(b)</sup>	WWZKQHOCKIZLMA-UHFFFAOYSA-N
Choline <sup>(a)(b)</sup>	OEYIOHPDSNJKLS-UHFFFAOYSA-N
Citrulline <sup>(a)(b)</sup>	RHGKLRLOHDJJDR-UHFFFAOYSA-N
Deoxycholic acid <sup>(a)</sup>	KXGVEGMKQFWNSR-LLQZFEROSA-N
Desaminotyrosine <sup>(a)(b)</sup>	NMHMNPFRMNGLLB-UHFFFAOYSA-N
Dimethylamine <sup>(b)</sup>	ROSDSFDCJNGOL-UHFFFAOYSA-N
Ethanolamine <sup>(a)</sup>	HZAXFHJVJLSVMW-UHFFFAOYSA-N
Formate <sup>(a)</sup>	BDAGIHXWWSANSR-UHFFFAOYSA-M
Fructose <sup>(a)</sup>	BJHIKXHVCXFQLS-UHFFFAOYSA-N
Fucose <sup>(a)</sup>	PNNNRSAQSRJVS B-UHFFFAOYSA-N
Fumarate <sup>(a)</sup>	VZCYOOQTPOCHFL-OWOBJTEDSA-L
Galactose <sup>(a)(b)</sup>	GZCGUPFRVQAU E-UHFFFAOYSA-N
Galacturonic acid <sup>(a)</sup>	IAJILQKETJEXLJ-RSJOWCBRSA-N
Gluconate <sup>(a)</sup>	RGHNXZEOKUKBD-UHFFFAOYSA-M
Glucose <sup>(a)(b)</sup>	GZCGUPFRVQAU E-UHFFFAOYSA-N
Glutamate <sup>(a)(b)</sup>	WHUUTDBJXRKMK-UHFFFAOYSA-N
Glutamine <sup>(a)(b)</sup>	ZDXPYRPNDTMRX-UHFFFAOYSA-N

Table 6. Non-Certified Metabolite Identifications of Omnivore Stool by NMR

Metabolite	InChiKey
Glutarate <sup>(a)</sup>	JFCQEDHGNNZCLN-UHFFFAOYSA-N
Glycerol <sup>(a)(b)</sup>	PEDCQBHVIMGVHV-UHFFFAOYSA-N
Glycine <sup>(a)(b)</sup>	DHMQDGOQFOQNHF-UHFFFAOYSA-N
Glycolate <sup>(a)</sup>	AEMRFAOKBGASW-UHFFFAOYSA-M
Hexanoic acid <sup>(a)</sup>	FUZZWVXGSFPDMH-UHFFFAOYSA-N
Hypoxanthine <sup>(a)(b)</sup>	FDGQSTZJBFJUBT-UHFFFAOYSA-N
Isobutyrate <sup>(a)</sup>	KQNPFQTWMSNSAP-UHFFFAOYSA-M
Isoleucine <sup>(a)(b)</sup>	AGPKZVBTJJNPAG-WHFBIAKZSA-N
Isovalerate <sup>(a)(b)</sup>	GWYFCOCPABKNJV-UHFFFAOYSA-N
Lactate <sup>(a)</sup>	JVTAAEKCFNVCJ-UHFFFAOYSA-M
Leucine <sup>(a)(b)</sup>	ROHFNLRFUQHCH-UHFFFAOYSA-N
Lysine <sup>(a)(b)</sup>	KDXKERNSBIXSRK-UHFFFAOYSA-N
Malate <sup>(a)(b)</sup>	BJEPYKJPYRNKOW-UHFFFAOYSA-L
Maltose <sup>(a)</sup>	DKXBNBNKWCZZMJT-SILGPGCPSA-N
Mannose <sup>(a)</sup>	GZCGUPFRVQAUCEE-UHFFFAOYSA-N
Methanol <sup>(a)(b)</sup>	OKKJLVBELUTLKU-UHFFFAOYSA-N
Methionine <sup>(a)(b)</sup>	FFEARJCKVFRZRR-UHFFFAOYSA-N
Methionine sulfoxide <sup>(a)</sup>	QEFRNWVLZKMPFJ-YGVKFDHGSA-N
Methylamine <sup>(a)</sup>	BAVYZALUXZFZLV-UHFFFAOYSA-N
Methylsuccinate <sup>(a)(b)</sup>	MUXOBHXGJLMRAB-UHFFFAOYSA-N
myo-Inositol <sup>(a)</sup>	CDAISMWEQUEBRE-UHFFFAOYSA-N
N-Acetylalanine <sup>(a)</sup>	KTHDTJVBEPMGL-VKHMYHEASA-N
N-Acetylglucosamine <sup>(a)</sup>	MBLBDJOUHNCFQT-UHFFFAOYSA-N
N-acetylglutamine <sup>(a)</sup>	KSMRODHGGIIXDV-YFKPBRYRSA-N
Nicotinate <sup>(a)(b)</sup>	PVNIIMVLHYAWGP-UHFFFAOYSA-M
Ornithine <sup>(a)</sup>	AHLPHDDHMVZTML-UHFFFAOYSA-N
Pantothenate <sup>(a)</sup>	GHOKWGTUZJEAQD-UHFFFAOYSA-N
p-Cresol <sup>(b)</sup>	IWDCLRJOBJJRNH-UHFFFAOYSA-N
Phenylacetate <sup>(a)(b)</sup>	IPBVNPXQWQGGJP-UHFFFAOYSA-N
Phenylalanine <sup>(a)(b)</sup>	COLNVLDHVWKWLRT-UHFFFAOYSA-N
Pipecolic acid <sup>(a)</sup>	HXEACLLILLPRG-UHFFFAOYSA-N
Proline <sup>(a)(b)</sup>	ONIBWKKTOPOVIA-UHFFFAOYSA-N
Propionate <sup>(a)(b)</sup>	XBDQKXXYIPTUBI-UHFFFAOYSA-M
Pyroglutamate <sup>(a)</sup>	ODHCTXKNWHHXJC-UHFFFAOYSA-M
Ribose <sup>(a)(b)</sup>	PYMPYPHUHKUWMLA-UHFFFAOYSA-N
Serine <sup>(a)(b)</sup>	MTCFGRXMQLQNBG-UHFFFAOYSA-N
Stachydrine <sup>(a)</sup>	CMUNUTVVOOHQPW-UHFFFAOYSA-N
Succinate <sup>(a)(b)</sup>	KDYFGRWQOYBRFD-UHFFFAOYSA-L
Threonine <sup>(a)(b)</sup>	AYFVYJQAPQTCCC-UHFFFAOYSA-N
Thymidine <sup>(a)</sup>	IQFYYKKMVGJFEH-XLPZGREQSA-N
Thymine <sup>(a)</sup>	RWQNBDRDOKXIBIV-UHFFFAOYSA-N
Tryptophan <sup>(a)(b)</sup>	QIVBCDIJIAJPQS-UHFFFAOYSA-N
Tyrosine <sup>(a)(b)</sup>	OUYCCCASFEME-UHFFFAOYSA-N
Uracil <sup>(a)(b)</sup>	ISAKRJDGNUQOIC-UHFFFAOYSA-N
Uridine <sup>(a)</sup>	DRTQHJPVMGBUCF-XVFCMESISA-N

Table 6. Non-Certified Metabolite Identifications of Omnivore Stool by NMR

Metabolite	InChiKey
Urocanate <sup>(a)</sup>	LOIYMIARKYCTBW-OWOJBTEDSA-N
Valerate <sup>(a)(b)</sup>	NQPDZGIKBAWPEJ-UHFFFAOYSA-M
Valine <sup>(a)(b)</sup>	KZSNJWFQEVDHDMF-UHFFFAOYSA-N
Xanthine <sup>(b)</sup>	LRFVTYWQMYALW-UHFFFAOYSA-N
Xylose <sup>(b)</sup>	SRBFZHDQGSBBOR-IOVATXLUSA-N

<sup>(a)</sup>Method 1 (Omnivore solvent extraction – polar metabolites)<sup>(b)</sup>Method 2 (Omnivore aqueous extraction – fecal water)

Table 7. Non-Certified Metabolite Identifications of Vegetarian Stool by NMR

Metabolite	InChiKey
(3-carboxypropyl)trimethylammonium <sup>(a)</sup>	JHPNVNIEXXLNTR-UHFFFAOYSA-O
1,3-Dimethyluric acid <sup>(a)</sup>	OTSBKHHWSQYEHK-UHFFFAOYSA-N
1-Methyluric acid <sup>(a)</sup>	QFDRTQONISXGJA-UHFFFAOYSA-N
2-Aminobutyrate <sup>(a)</sup>	QWCKQJZIFLGMSSD-UHFFFAOYSA-N
2'-Deoxyuridine <sup>(a)</sup>	MXHRCPNRJAMMIM-UHFFFAOYSA-N
2-Methylbutyrate <sup>(a)</sup>	WLAMNBDJUVNPJU-BYPYZUCNSA-N
3-Hydroxyphenylacetate <sup>(a)</sup>	FVMDYYGIDFPZAX-UHFFFAOYSA-N
3-Phenylpropionate <sup>(a)(b)</sup>	XMIIGOLPHOKFCH-UHFFFAOYSA-N
4-Hydroxyphenylacetate <sup>(a)</sup>	XQXPVBIMDBYFF-UHFFFAOYSA-M
5-Aminopentanoate <sup>(a)</sup>	JJMDCOVWQOJGCB-UHFFFAOYSA-M
6-Hydroxynicotinate <sup>(a)</sup>	BLHCMGRVFXRYRN-UHFFFAOYSA-M
Acetate <sup>(a)(b)</sup>	QTBSBXVTEAMEQO-UHFFFAOYSA-M
Alanine <sup>(a)(b)</sup>	QNAYBMKLOCYGY-UHFFFAOYSA-N
Aminocaproic acid <sup>(a)</sup>	SLXKOJJQWFED-UHFFFAOYSA-N
Arabinose <sup>(a)(b)</sup>	SRBFZHDQGSBBOR-HWQSCIPKSA-N
Asparagine <sup>(a)</sup>	DCXYFEDJOCDNAF-REOHCLBHSA-N
Aspartate <sup>(a)(b)</sup>	CKLJMWTZIZZHCS-UHFFFAOYSA-L
Beta-Alanine <sup>(a)</sup>	UCMIRNVEIXFBKS-UHFFFAOYSA-N
Butyrate <sup>(a)(b)</sup>	FERIUCNNQQJTOY-UHFFFAOYSA-M
Cadaverine <sup>(a)(b)</sup>	VHRGRCVQAFMJZ-UHFFFAOYSA-N
Caprylate <sup>(a)(b)</sup>	WWZKQHOCKIZLMA-UHFFFAOYSA-N
Choline <sup>(a)(b)</sup>	OEYIOHPDSNJKLS-UHFFFAOYSA-N
Citrulline <sup>(a)(b)</sup>	RHGKLRLQHDDJDR-UHFFFAOYSA-N
Deoxycholic acid <sup>(a)</sup>	KXGVEGMKQFWNSR-LLQZFEROSA-N
Ethanolamine <sup>(a)</sup>	HZAXFHJVJLSVMW-UHFFFAOYSA-N
Formate <sup>(a)(b)</sup>	BDAGIHXXWSANSR-UHFFFAOYSA-M
Fructose <sup>(a)</sup>	BJHIKXHVCXFQLS-UHFFFAOYSA-N
Fucose <sup>(a)</sup>	PNNNRSAQSRJVSB-UHFFFAOYSA-N
Fumarate <sup>(a)(b)</sup>	VZCYOOQTPOCHFL-OWOJBTEDSA-L
Gabapentin <sup>(a)(b)</sup>	UGJMXCAKCUNAIE-UHFFFAOYSA-N
Galactose <sup>(a)(b)</sup>	GZCGUPFRVQAUEE-UHFFFAOYSA-N
Galacturonic acid <sup>(a)</sup>	IAJILQKETJEXLJ-RSJOWCBRSA-N
Gluconate <sup>(a)</sup>	RGHNJXZEOKUKBD-UHFFFAOYSA-M
Glucose <sup>(a)(b)</sup>	GZCGUPFRVQAUEE-UHFFFAOYSA-N
Glutamate <sup>(a)(b)</sup>	WHUUTDBJXRKMK-UHFFFAOYSA-N

Table 7. Non-Certified Metabolite Identifications of Vegetarian Stool by NMR

Metabolite	InChiKey
Glutamine <sup>(a)(b)</sup>	ZDXPYRJPNDTMRX-UHFFFAOYSA-N
Glycerol <sup>(a)(b)</sup>	PEDCQBHVIMGVHV-UHFFFAOYSA-N
Glycine <sup>(a)(b)</sup>	DHMQDGOQFOQNHF-UHFFFAOYSA-N
Glycolate <sup>(a)</sup>	AEMRFAOKBGASW-UHFFFAOYSA-M
Hexanoic acid <sup>(a)</sup>	FUZZWVXGSFPDMH-UHFFFAOYSA-N
Hypoxanthine <sup>(a)(b)</sup>	FDGQSTZJBFJUBT-UHFFFAOYSA-N
Isobutyrate <sup>(a)</sup>	KQNPQTWMSNSAP-UHFFFAOYSA-M
Isoleucine <sup>(a)(b)</sup>	AGPKZVBTJJNPAG-WHFBIAKZSA-N
Isovalerate <sup>(a)(b)</sup>	GWYFCOCPABKNJV-UHFFFAOYSA-N
Lactate <sup>(a)(b)</sup>	JVTAAEKCFNVCJ-UHFFFAOYSA-M
Leucine <sup>(a)(b)</sup>	ROHFNLRQFUQHCH-UHFFFAOYSA-N
Lysine <sup>(a)(b)</sup>	KDXKERNBSBIXSRK-UHFFFAOYSA-N
Malate <sup>(a)(b)</sup>	BJEPYKJPYRNKOW-UHFFFAOYSA-L
Maltose <sup>(a)</sup>	DKXBNBNKWCZZMJT-SILGPGCPA-N
Mannobiose <sup>(a)</sup>	GUBGYTABKSRVRQ-PZPXDAEZA-N
Methanol <sup>(a)(b)</sup>	OKKJLVBELUTLKV-UHFFFAOYSA-N
Methionine <sup>(a)(b)</sup>	FFEARJCKVFRZRR-UHFFFAOYSA-N
Methionine sulfoxide <sup>(a)</sup>	QEFRNW WLZKMPFJ-YGVKFDHGSA-N
Methylamine <sup>(a)</sup>	BAVYZALUXZFZLV-UHFFFAOYSA-N
Methylsuccinate <sup>(a)(b)</sup>	MUXOBHXGJLMRAB-UHFFFAOYSA-N
myo-Inositol <sup>(a)</sup>	CDAISMWEQUEBRE-UHFFFAOYSA-N
N-Acetylalanine <sup>(a)</sup>	KTHDTJVBEPMGL-VKHYMYHEASA-N
N-Acetylglucosamine <sup>(a)</sup>	MBLBDJOUHNCQT-UHFFFAOYSA-N
N-acetylglutamine <sup>(a)</sup>	KSMRODHGGIIXDV-YFKPBRYVSA-N
Nicotinate <sup>(a)(b)</sup>	PVNIIIMVLHYAWGP-UHFFFAOYSA-M
Ornithine <sup>(a)</sup>	AHLPHDHMVZTML-UHFFFAOYSA-N
Pantothenate <sup>(a)</sup>	GHOKWGTUZJEAQD-UHFFFAOYSA-N
p-Cresol <sup>(b)</sup>	IWDCLRJOBJJRNH-UHFFFAOYSA-N
Phenylacetate <sup>(a)(b)</sup>	IPBVNPXQWQGGJP-UHFFFAOYSA-N
Phenylalanine <sup>(a)(b)</sup>	COLNVLDHVKWLR-UHFFFAOYSA-N
Pipecolic acid <sup>(a)</sup>	HXEACLLIILLPRG-UHFFFAOYSA-N
Proline <sup>(a)(b)</sup>	ONIBWKKTPOVIA-UHFFFAOYSA-N
Propionate <sup>(a)(b)</sup>	XBDQKXXYIPTUBI-UHFFFAOYSA-M
Pyroglutamate <sup>(a)</sup>	ODHCTXKNWHHXJC-UHFFFAOYSA-M
Ribose <sup>(a)(b)</sup>	PYMYPHUHKUWMLA-UHFFFAOYSA-N
Sarcosine <sup>b</sup>	FSYKKLYZXJSNPZ-UHFFFAOYSA-N
Serine <sup>(a)(b)</sup>	MTCFGRMJLQNBG-UHFFFAOYSA-N
Succinate <sup>(a)(b)</sup>	KDYFGRWQOYBRFD-UHFFFAOYSA-L
Threonine <sup>(a)(b)</sup>	AYFVYJQAPQTCCC-UHFFFAOYSA-N
Thymidine <sup>(a)</sup>	IQFYYKKMVGJFEH-XLPZGREQSA-N
Thymine <sup>(a)</sup>	RWQNBDRDOKXIBIV-UHFFFAOYSA-N
Tryptophan <sup>(a)(b)</sup>	QIVBCDIJIAJPQS-UHFFFAOYSA-N
Tyrosine <sup>(a)(b)</sup>	OUYCCCASQSFE ME-UHFFFAOYSA-N
Uracil <sup>(a)(b)</sup>	ISAKRJDGNUQOIC-UHFFFAOYSA-N
Uridine <sup>(a)(b)</sup>	DRTQHJPVMGBUCF-XVFCMESISA-N

Table 7. Non-Certified Metabolite Identifications of Vegetarian Stool by NMR

Metabolite	InChiKey
Urocanate <sup>(a)(b)</sup>	LOIYMIARKYCTBW-OWOJBTEDSA-N
Valerate <sup>(a)(b)</sup>	NQPDZGIKBAWPEJ-UHFFFAOYSA-M
Valine <sup>(a)(b)</sup>	KZSNJWFQEVDMF-UHFFFAOYSA-N
Xanthine <sup>(b)</sup>	LRFVTYWQMYALW-UHFFFAOYSA-N
Xylose <sup>(b)</sup>	SRBFZHDQGSBBOR-IOVATXLUSA-N

<sup>(a)</sup>Method 1 (Vegetarian solvent extraction – polar metabolites)<sup>(b)</sup>Method 2 (Vegetarian aqueous extraction – fecal water)

**Safety:** RM 8408 IS INTENDED FOR RESEARCH USE ONLY. This is a human source material (human feces). RM 8408 is a Biosafety Level 2 material and should be handled according to applicable federal, state, and/or local regulations and according to policies and procedures of recipient's organization. The supplier has reported that each donor of stool used in the preparation of this product was tested by FDA-licensed tests and found to be negative for human immunodeficiency virus (HIV), HIV-1 antigen, hepatitis B surface antigen, and hepatitis C.

**Storage:** The original unopened vials of RM 8048 should be stored at -80 °C. Each vial is meant to be a single use. Freeze-thaw cycles of the materials should be avoided.

**Usage and Privacy Agreement:** NIST does not possess any identifiable private information or any code to identify any identifiable private information related to the Material and will not provide the Purchaser with any identifiable private information of any living individual or any code to identify any identifiable private information related to the Material. Purchaser agrees not to attempt to decipher any identifiable private information from the Material or to identify the individual who is the subject of the Material. Purchaser agrees not to upload or search the genetic data into any public, private, commercial, or genealogy databases. In the event that Purchaser determines the identity of any individual related to the Material, Purchaser shall not make use of such knowledge, shall safeguard or destroy such information, shall not disclose such information to any other party, and shall notify NIST of such discovery in accordance with the applicable laws and regulations in effect at the time of the discovery.

**Use:** RM 8048 is provided as frozen stool that should be allowed to thaw at room temperature for no greater than 60 minutes prior to use. After the material is thawed, the entire vial should be used immediately. The contents of the vial should be gently mixed prior to analysis. Precautions should be taken to avoid exposure to strong UV light, direct sunlight and heat.

## REFERENCES

- [1] Beauchamp, C.R.; Camara, J.E.; Carney, J.; Choquette, S.J.; Cole, K.D.; DeRose, P.C.; Duewer, D.L.; Epstein, M.S.; Kline, M.C.; Lippa, K.A.; Lucon, E.; Molloy, J.; Nelson, M.A.; Phinney, K.W.; Polakoski, M.; Possolo, A.; Sander, L.C.; Schiel, J.E.; Sharpless, K.E.; Toman, B.; Winchester, M.R.; Windover, D.; *Metrological Tools for the Reference Materials and Reference Instruments of the NIST Material Measurement Laboratory*; NIST Special Publication 260-136, 2021 edition; National Institute of Standards and Technology, Gaithersburg, MD (2021); available at <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.260-136-2021.pdf> (accessed Mar 2025).
- [2] Sumner, L.W.; Amberg, A.; Barrett, D.; Beale, M.H.; Beger, R.; Daykin, C.A.; Fan, T.W.-M.; Fiehn, O.; Goodacre, R.; Griffin, J.L.; Hankemeier, T.; Hardy, N.; Harnly, J.; Higashi, R.; Kopka, J.; Lane, A.N.; Lindon, J.C.; Marriott, P.; Nicholls, A.W.; Reily, M.D.; Thaden, J.J.; Viant, M.R.; Proposed minimum reporting standards for chemical analysis; *Metabolomics* 3, 211–221 (2007).

### If you use this SRM in published work, please reference:

Jackson SA, Bayless AL, Casu F, Da Silva SM, Davis WC, Ellisor DL, Gierz K, Iyer H, Lin NJ, Parratt KH, Schock TB, Urbas AA, Forry SP, Hunter M, Servetas SL. (2025), Characterization of Human Fecal Material (RM 8048) from Omnivore and Vegetarian Donors. (National Institute of Standards and Technology, Gaithersburg, MD), NIST Special Publication (SP) NIST SP 260-252. <https://doi.org/10.6028/NIST.SP.260-252>

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\* \* \* \* \* End of Reference Material Information Sheet \* \* \* \* \*

## APPENDIX A

**Source and Preparation:** RM 8048 is created as a pair of distinct human stool samples, corresponding to two dietary donor pools: omnivore and vegetarian. In its final form, the RM 8048 is comprised of homogenized stool from multiple donors resuspended in water to a concentration of 100 mg/mL wet weight. This RM was developed after an appropriate human subject's research determination by NIST.

**Omnivore Stool (RM 8048 Part A):** The omnivore stool was comprised of five donors for a total of 1,241 g (178 g to 305 g collected per donor). Human fecal material collections were coordinated through BioIVT (Hicksville, NY), under informed consent. Donors were self-reported healthy with no antibiotic use within three months of donation. All donors screened for the following infectious agents via blood draw: hepatitis B/C virus, human immunodeficiency virus (types 1 and 2), West Nile virus, syphilis, and Chagas. All donors were required to complete a food diary corresponding to the week around the donations. Stool donations were collected and stored at -80 °C and shipped to NIST on dry ice. Samples were combined and cryogenically homogenized, bottled in ~100 g aliquots and stored at -80 °C. Samples were then shipped on dry ice to BioIVT and stored at -80 °C. The cryogenically homogenized material was diluted with water to a concentration of 100 mg/mL (cryohomogenized stool/water) and three bacterial strains *Deinococcus radiodurans* (NIST0032), *Brenneria nigrifluens* (NIST0080), and *Deltia acidovorans* (NIST0136) were added to the slurry and homogenized. With constant mixing, a continuous pipettor was used to distribute 1 mL of stool slurry into each sample vial.

**Vegetarian Stool (RM 8048 Part B):** The vegetarian cohort was comprised of four donors for a total of 1,293 g collected (200 g to 300 g collected per donor). Human fecal material collections were coordinated through BioIVT (Hicksville, NY), under informed consent. Donors were self-reported healthy with no antibiotic use within three months of donation. All donors screened for the following infectious agents via blood draw: hepatitis B/C virus, human immunodeficiency virus (types 1 and 2), West Nile virus, syphilis, and Chagas. All donors were required to complete a food diary corresponding to the week around the donations. Stool donations were collected and stored at -80 °C and shipped to NIST on dry ice. Samples were combined and cryogenically homogenized, bottled in ~100 g aliquots and stored at -80 °C. Samples were then shipped on dry ice to BioIVT and stored at -80 °C. The cryogenically homogenized material was diluted with water to a concentration of 100 mg/mL (cryohomogenized stool/water) and three bacterial strains *Deinococcus radiodurans* (NIST0032), *Brenneria nigrifluens* (NIST0080), and *Deltia acidovorans* (NIST0136) were added to the slurry and homogenized. With constant mixing, a continuous pipettor was used to distribute 1 mL of stool slurry into each sample vial.

**Analytical Approach for Metagenomic Identification (NIST):** Three replicate vials from each of 10 different boxes were selected for homogeneity and stability testing. For homogeneity testing, one vial from each box was analyzed; for stability, two vials from different boxes were tested at each subsequent time point except for the 12-week time point when vials from six different boxes were tested for the omnivores. For each vial, four replicate DNA extractions were carried out using the Zymo Research Quick-DNA Fecal/Soil Microbe Miniprep Extraction Kit per protocol with the following modification - mechanical disruption was carried out using the Vortex Genie Microtube adapter with the vortex genie set to max rpm for 40 minutes. DNA was eluted and stored at 4 °C. Following extraction, the V4 region of the 16S rRNA genes were amplified by PCR and analyzed by next generation sequencing. Read processing and error correction were carried out using CutAdapt and DADA2 (1.20.0), respectively. Taxonomy was assigned based on the silva database (v138). The non-certified taxa results are comprised of the top 50 sequences identified in the homogeneity analysis.

**Analytical Approach for LC-MS/MS Metabolite Identification (NIST):** Metabolite identifications were determined by an untargeted liquid chromatography tandem mass spectrometry (LC-MS/MS)-based metabolomics approach. Each phenotypic donor pool (RM 8048 Part A Omnivore, RM 8048 Part B Vegetarian stool) was prepared using a Bligh & Dyer extraction. Ten vials of each stool material were removed from storage at -80 °C and the entire contents were extracted with a 2:2:1.8 solvent system of methanol:chloroform:water. All samples were vortexed for 1 min each, then allowed to sit on ice for 10 min. Samples were centrifuged for phase separation and the polar layer and non-polar layer were each removed and taken to dryness in a vacuum centrifuge, then immediately stored at -80 °C until analysis. The polar fraction was resuspended in 2 % methanol in water volume fraction prior to LC-MS/MS analysis. The non-polar fraction was resuspended in isopropanol prior to LC-MS/MS analysis. A gradient method with a 0.1 % formic acid in water/0.1 % formic acid in methanol mobile phase and a C18 column was used for polar LC-MS/MS analysis in both positive and negative mode with a data dependent acquisition on two different high resolution MS instruments. For the non-polar fraction, a gradient method with a mobile phase of A: 60:40 acetonitrile:water and B: 90:10 isopropanol:acetonitrile, both with 10 mmol/L ammonium formate and 0.1 % formic acid, and a C30 column were used for non-polar LC-MS/MS analysis in both positive and negative mode

using a data dependent acquisition on a high-resolution MS instrument. The resulting tandem MS spectra were searched using HighChem-HighRes, HighChemDP, and NIST spectral library search algorithms with NIST20 and mzVault (version 2019) libraries. Putative metabolite identifications (MSI level 2 [2]) by spectral library matches and scores for each search algorithm, sample preparation, and instrument were filtered (match score  $\geq 65$ ) and combined.

**Analytical Approach for NMR Metabolite Identification (NIST Method 1):** Metabolite identifications were determined by an untargeted NMR based metabolomics approach. Each phenotypic donor pool (RM 8048 Part A Omnivore, RM 8048 Part B Vegetarian stool) was prepared using a Bligh & Dyer extraction. Ten vials of each stool material were removed from storage at  $-80^{\circ}\text{C}$  and the entire contents were extracted with a 2:2:1.8 solvent system of methanol:chloroform:water. All samples were vortexed for 1 min each then allowed to sit on ice for 10 min. Samples were centrifuged for phase separation and the polar layer and non-polar layer were each removed and taken to dryness in a vacuum centrifuge, then immediately stored at  $-80^{\circ}\text{C}$  until analysis. The polar fraction was rehydrated in 100 mmol/L sodium phosphate NMR buffer in  $\text{D}_2\text{O}$  containing 1.0 mmol/L sodium 3-Trimethylsilyl 2,2,3,3-d<sub>4</sub> propionate as the chemical shift reference standard. One dimensional <sup>1</sup>H NMR and two dimensional <sup>1</sup>H, <sup>13</sup>C-HSQC spectra were collected, and metabolites were assigned based on chemical shift comparisons using reference spectra from the Human Metabolome Database (HMDB), the Biological Magnetic Resonance Bank (BMRB), and the spectral library in Chenomx NMR Analysis software.

**Analytical Approach for NMR Metabolite Identification (NIST Method 2):** Metabolite identifications were determined by an untargeted NMR-based metabolomics approach. The aqueous portion of 22 vials each phenotypic donor pool (RM 8048 Part A Omnivore, RM 8048 Part B Vegetarian stool) was analyzed after centrifugation for 30 minutes at  $14,000 \times g$  at  $4^{\circ}\text{C}$ , then addition of a 100 mmol/L sodium phosphate buffer, 6.15 mmol/L sodium azide, and sodium 2,2-dimethyl- 2 – silapentane-5-sulfonate-D6 in  $\text{D}_2\text{O}$ . One-dimensional <sup>1</sup>H spectra were collected, and metabolites were assigned based on chemical shift comparisons using reference spectra from the Human Metabolome Database (HMDB), the Biological Magnetic Resonance Bank (BMRB), and the spectral library in Chenomx NMR Analysis software. An additional aqueous portion of a single vial of each phenotypic donor pool (RM 8048 Part A Omnivore, RM 8048 Part B Vegetarian stool) was analyzed after centrifugation for 30 minutes at  $14,000 \times g$  at  $4^{\circ}\text{C}$ , addition of a 100 mmol/L sodium phosphate buffer, and centrifugation for 60 minutes at  $10,000 \times g$  at  $4^{\circ}\text{C}$  with a 3 kDa molecular weight filter. The filtrate was then diluted in  $\text{D}_2\text{O}$  containing 100 mmol/L sodium phosphate NMR buffer containing 0.50 mmol/L sodium 2,2-dimethyl- 2- silapentane-5-sulfonate-D6 (DSS-D6) as the chemical shift reference standard. Two dimensional <sup>1</sup>H, <sup>13</sup>C-HSQC spectra were collected, and metabolites were assigned based on chemical shift comparisons using reference spectra from the Human Metabolome Database (HMDB), the Biological Magnetic Resonance Bank (BMRB), and the spectral library in Chenomx NMR Analysis software.

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