

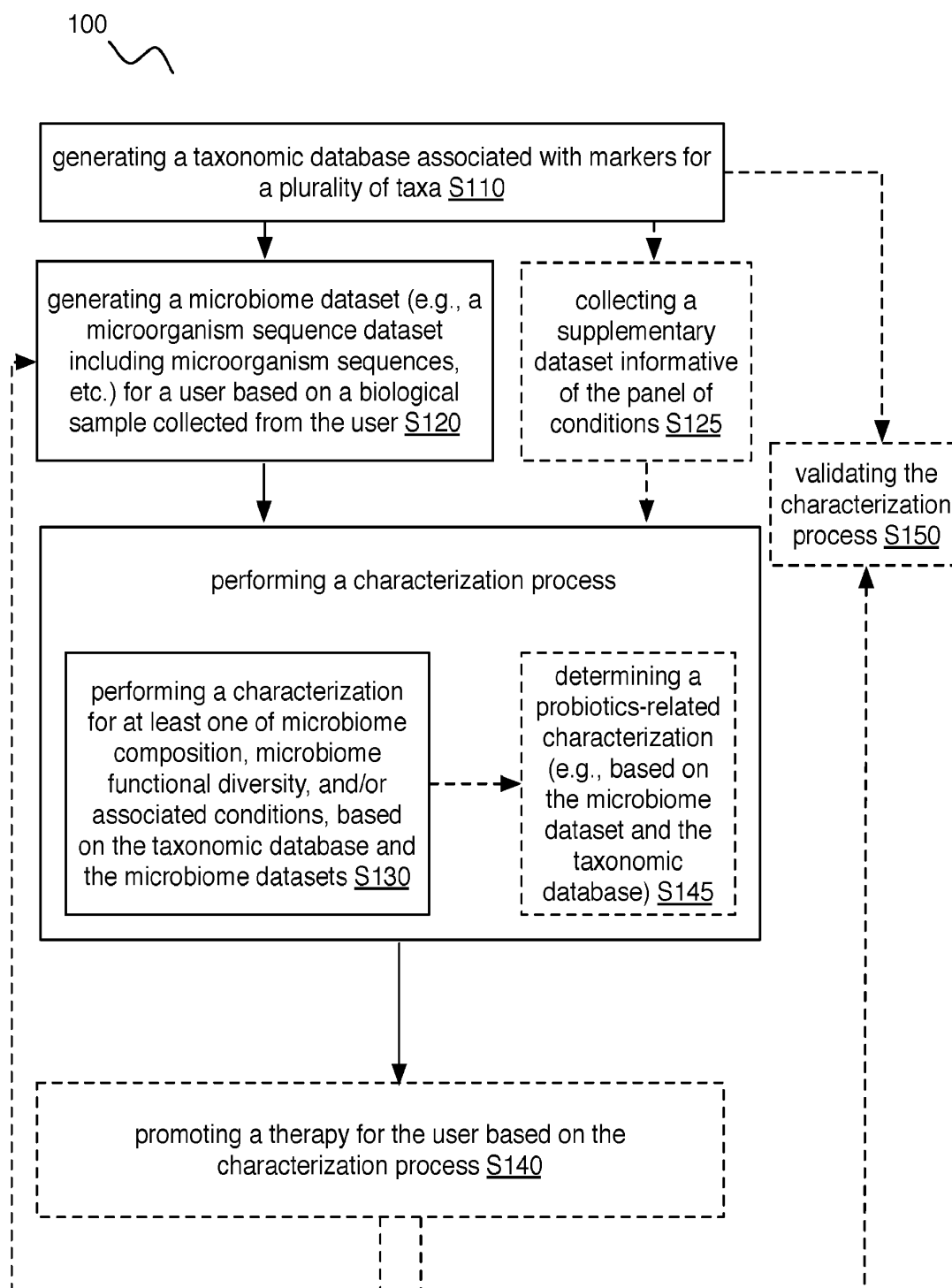


FIGURE 1A

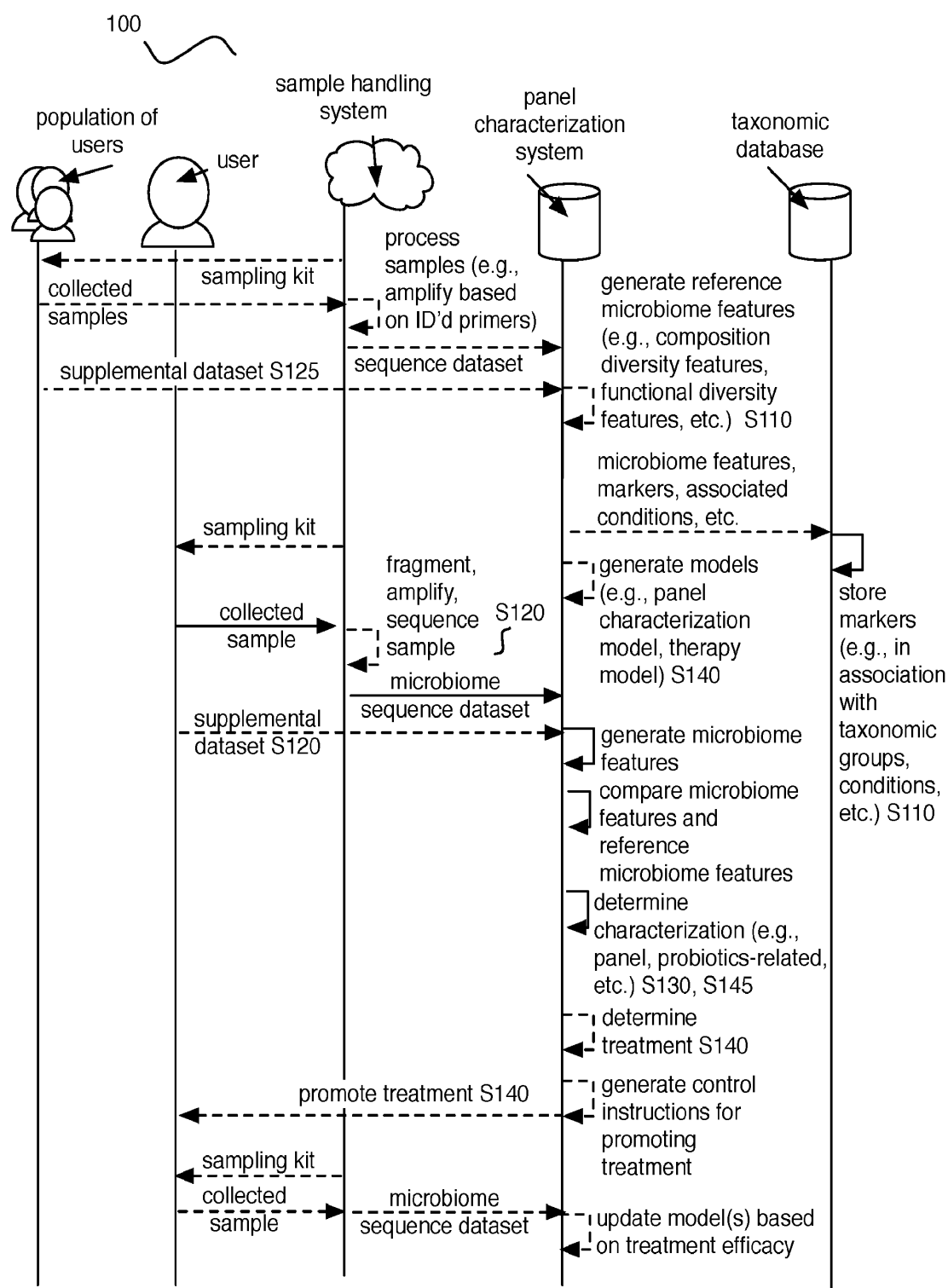
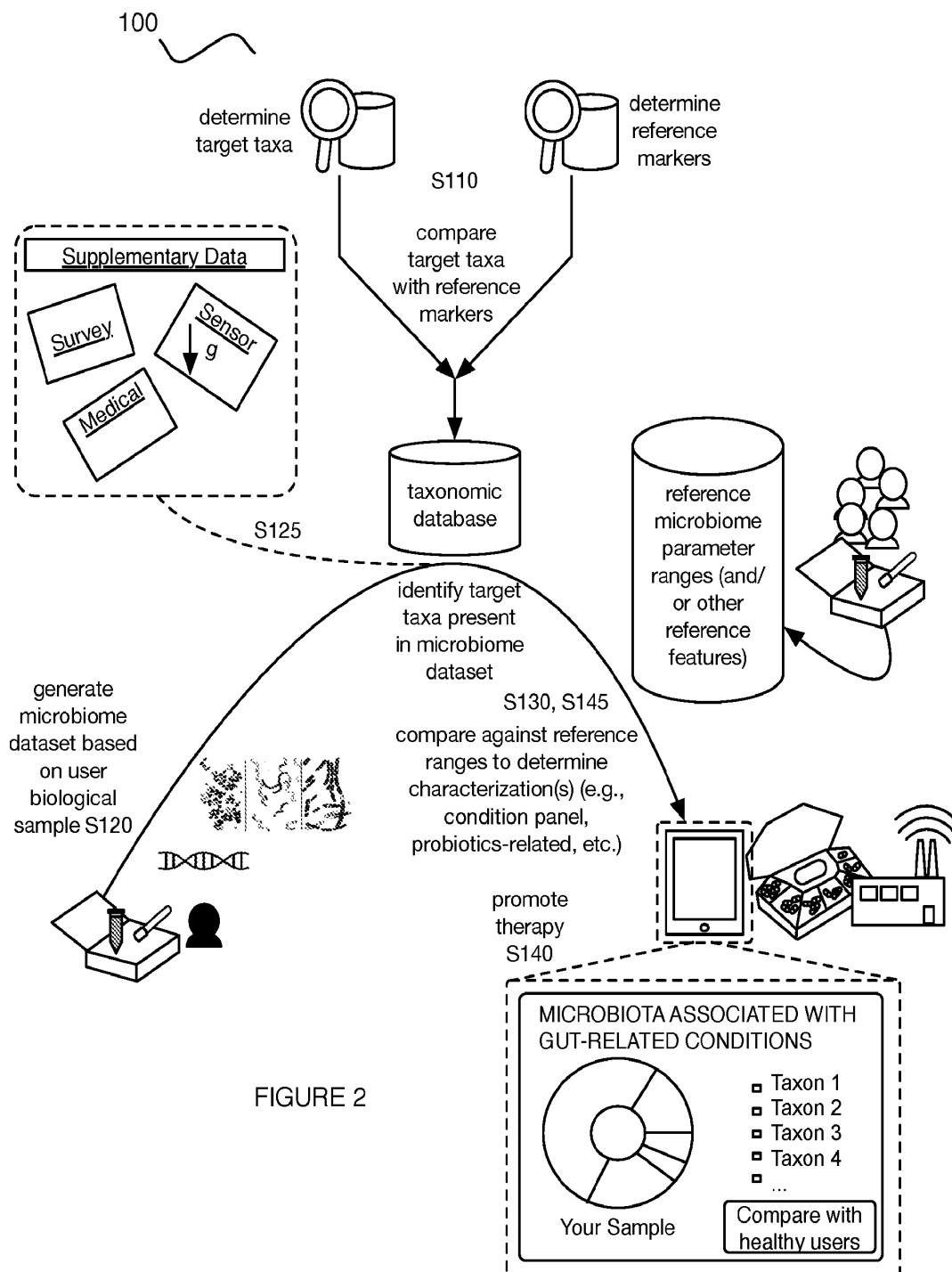


FIGURE 1B



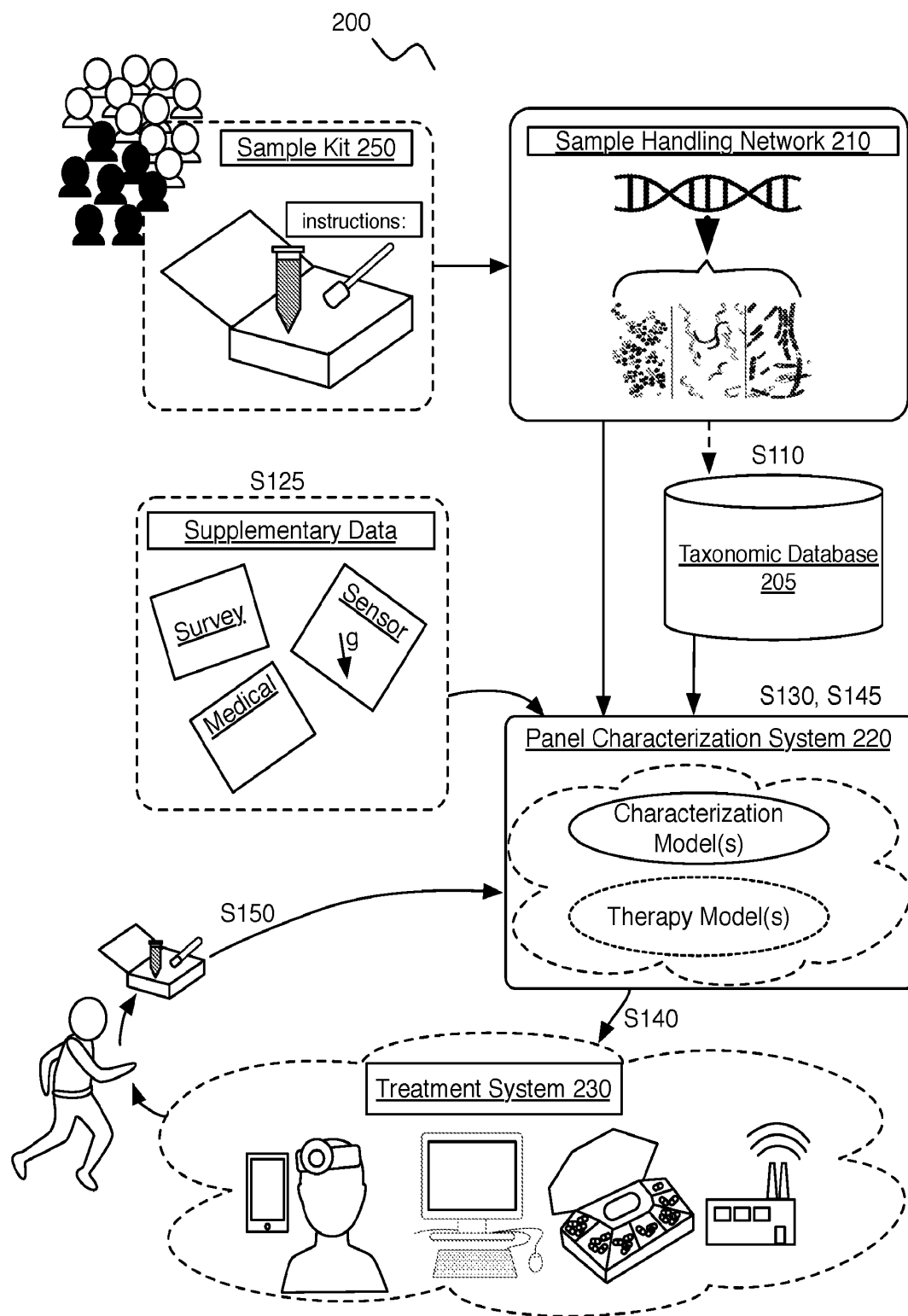
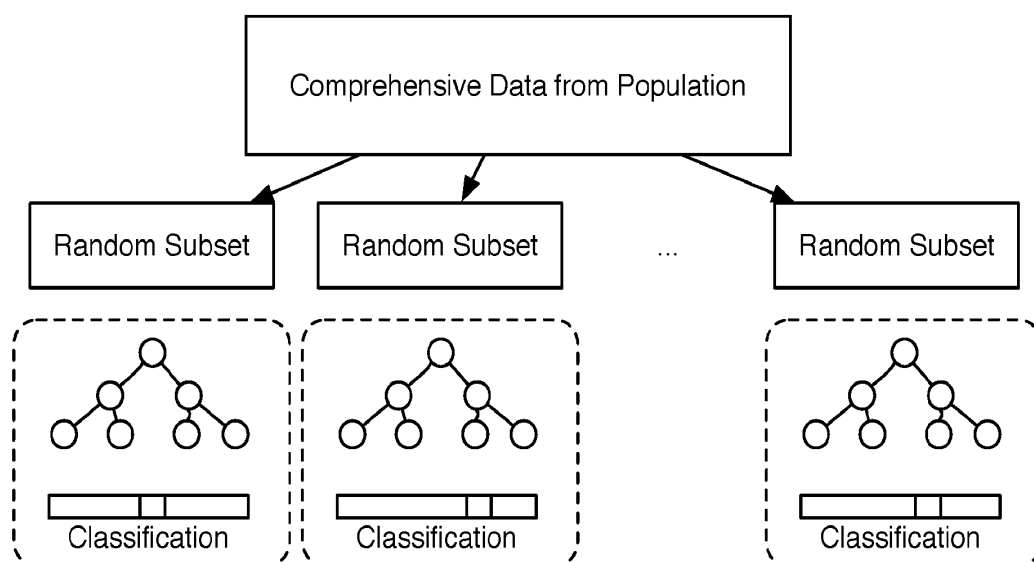


FIGURE 3



generate feature set based on computer-implemented rules

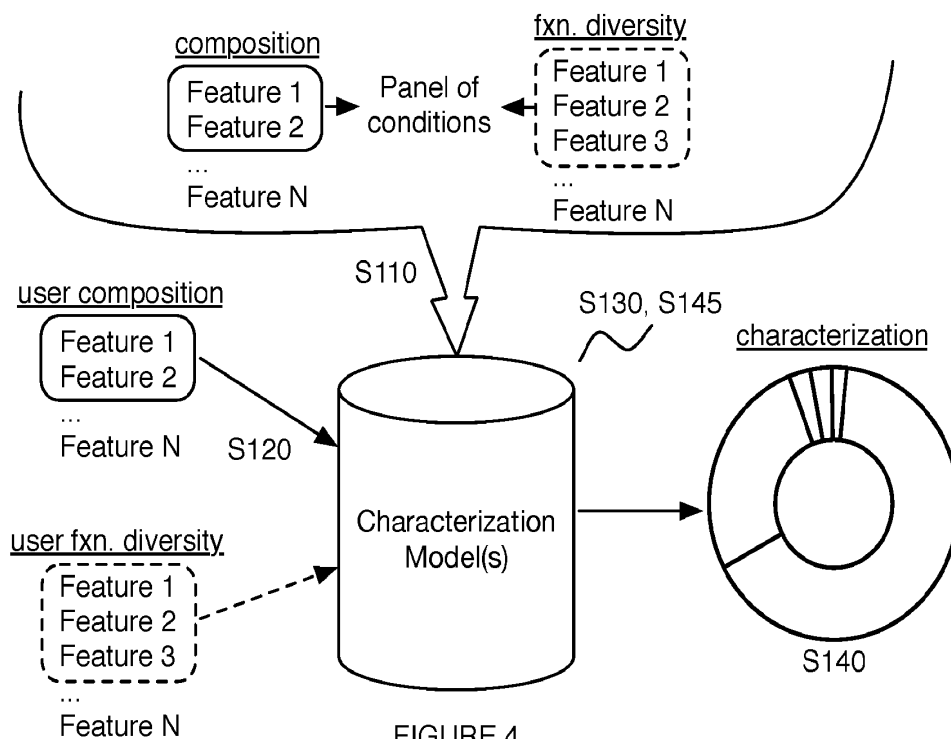


FIGURE 4

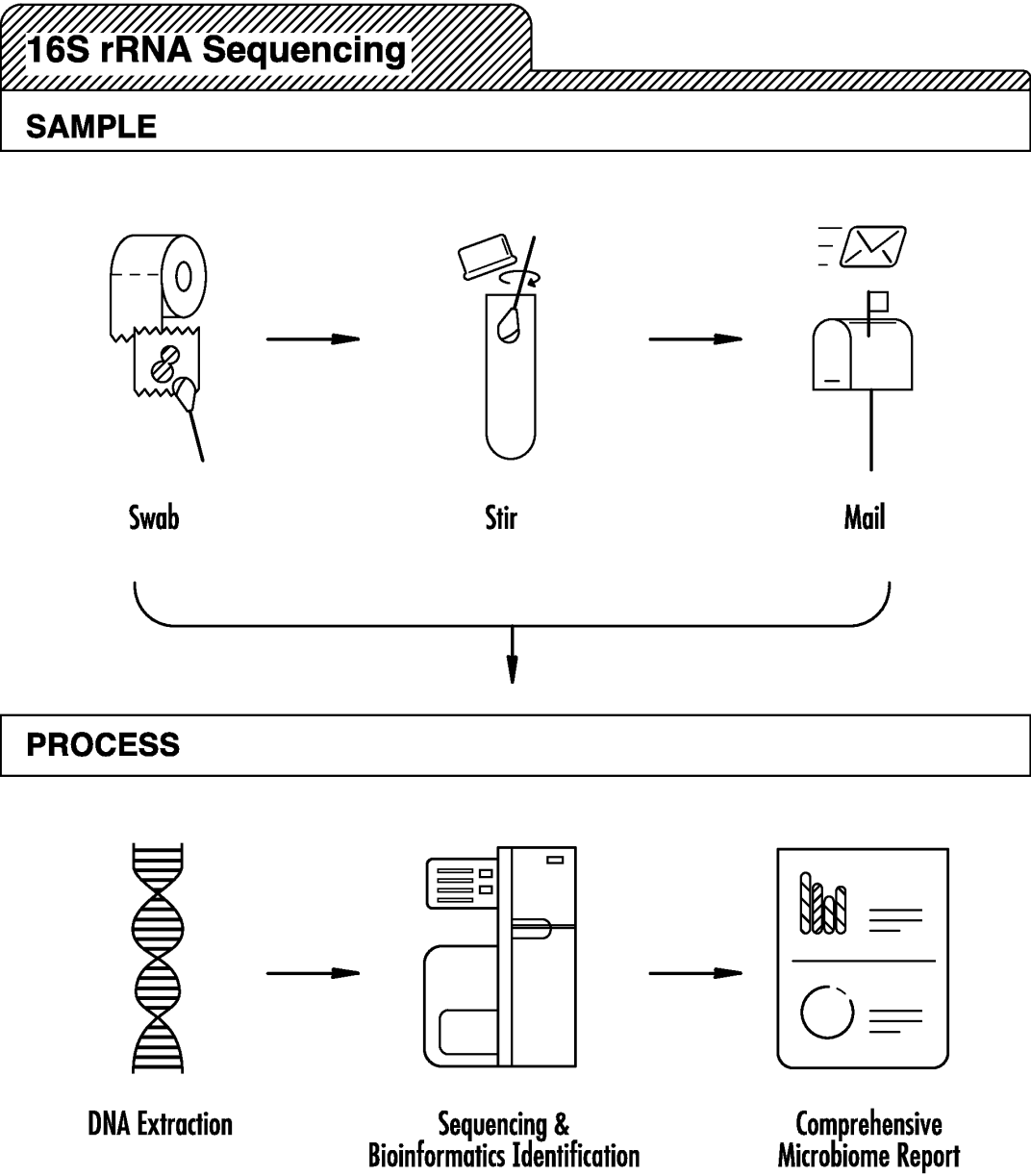


FIGURE 5

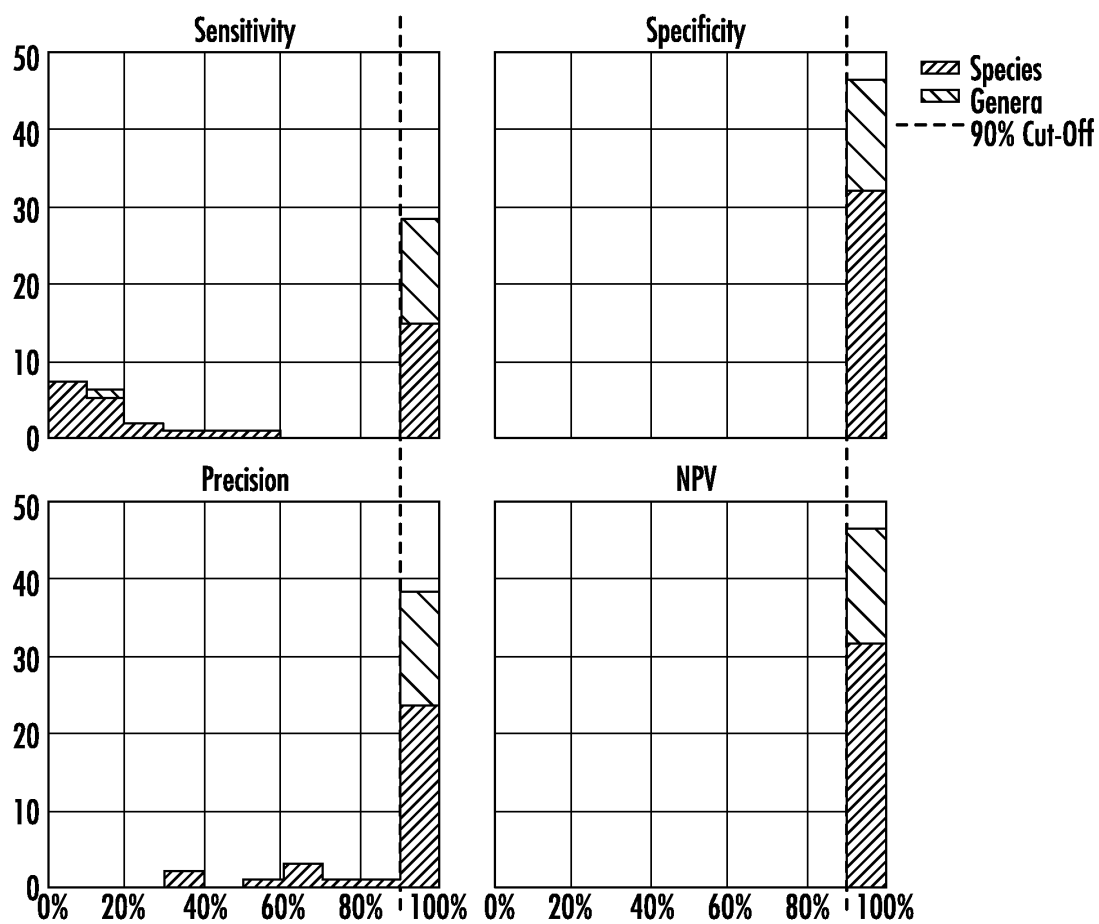
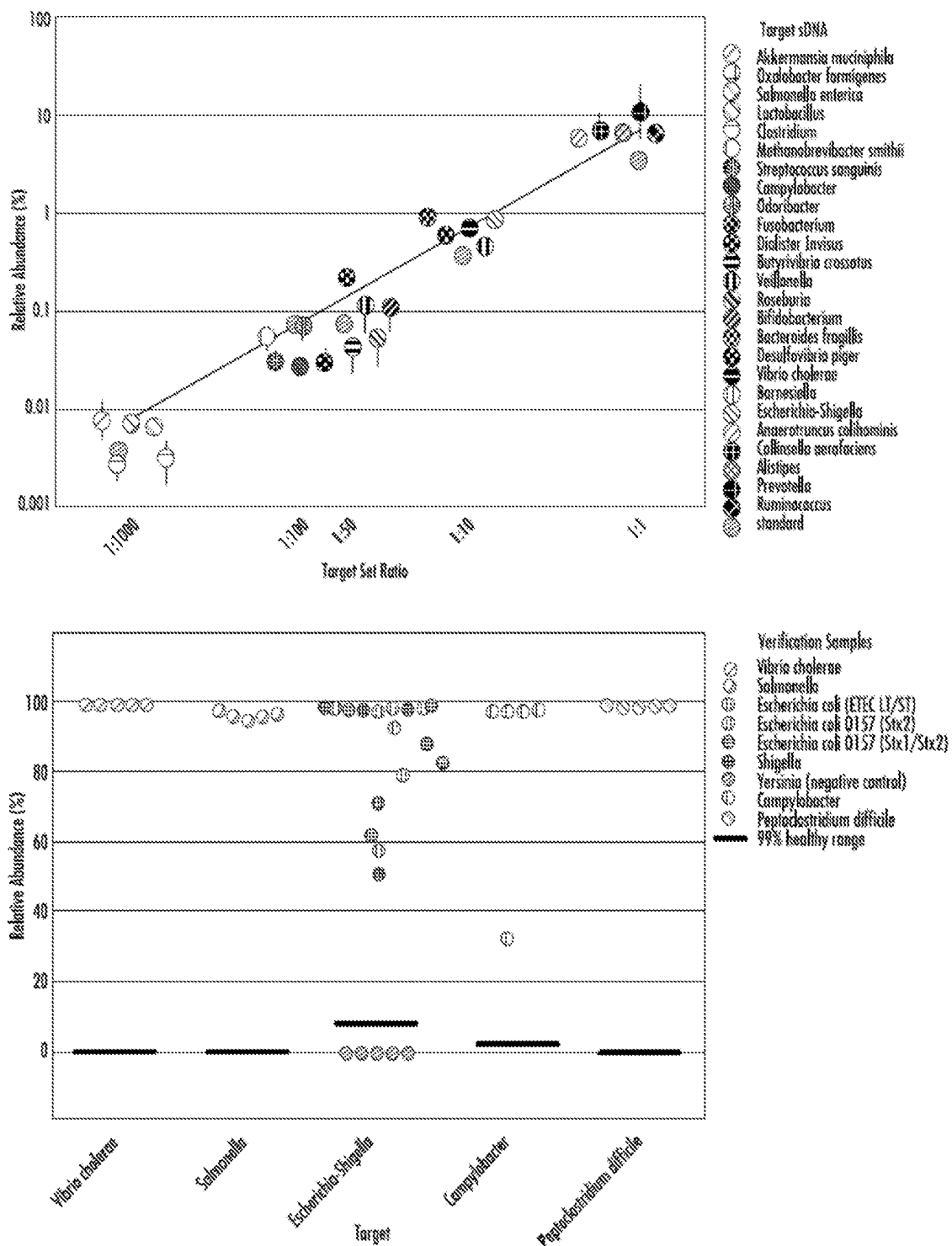


FIGURE 6



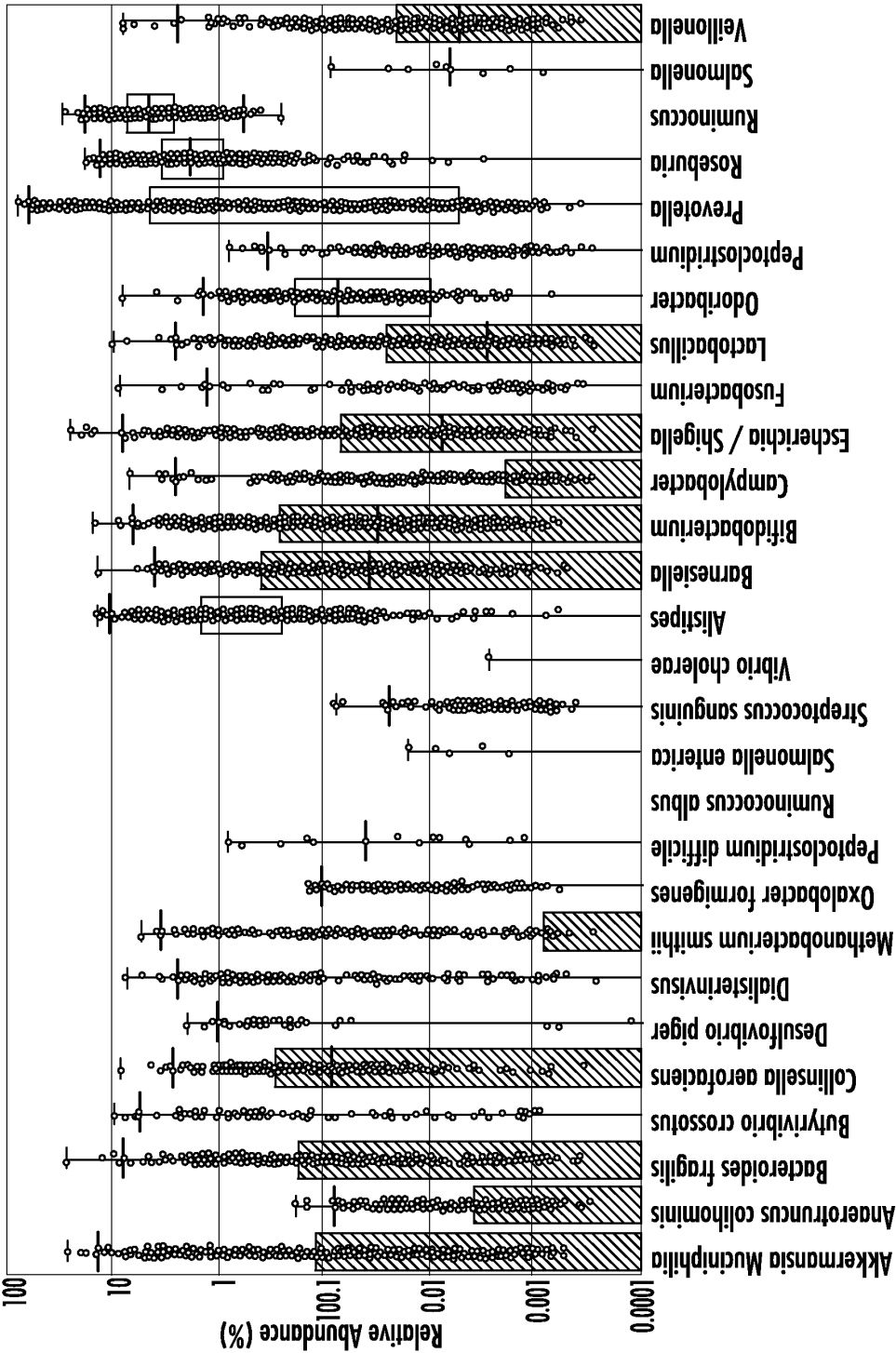


FIGURE 8

Genera

Target	Sensitivity	Specificity	Precision	NPV
Alistipes	98.74	100.00	99.55	100.00
Barnesiella	99.32	100.00	99.73	100.00
Bifidobacterium	97.76	100.00	99.93	100.00
Campylobacter	98.60	100.00	99.90	100.00
Peptoclostridium	93.05	100.00	96.58	99.99
Escherichia / Shigella	98.06	99.99	98.91	99.98
Fusobacterium	98.02	100.00	99.59	99.99
Lactobacillus	98.02	99.98	98.45	99.97
Odoribacter	98.87	100.00	99.86	100.00
Prevotella	98.63	100.00	99.88	100.00
Pseudoflavonifractor	15.38	100.00	100.00	100.00
Roseburia	91.34	99.97	91.85	99.97
Ruminococcus	94.97	99.99	95.45	99.99
Salmonella	97.09	100.00	98.69	100.00
Veillonella	99.07	100.00	99.97	100.00

FIGURE 9A

Species

Target	Sensitivity	Specificity	Precision	NPV
Akkermansia Muciniphilia	100.00	100.00	100.00	100.00
Anaerotruncus colihominis	100.00	100.00	100.00	100.00
Bacteroides fragilis	97.32	99.99	99.60	99.99
Bacteroides vulgatus	8.82	100.00	100.00	99.99
Bifidobacterium longum	10.11	100.00	100.00	99.99
Butyrivibrio crossotus	100.00	100.00	100.00	100.00
Campylobacter jejuni	6.73	100.00	100.00	99.97
Campylobacter coli	18.30	99.99	92.85	99.99
Campylobacter lari	7.93	100.00	100.00	99.99
Peptoclostridium difficile	98.42	100.00	100.00	99.99
Collinsella aerofaciens	99.54	99.99	97.74	99.99
Coprococcus autactus	50.00	100.00	100.00	99.99
Desulfovibrio piger	100.00	100.00	100.00	100.00
Dialister invisus	100.00	99.99	90.00	100.00
Escherichia coli	99.40	99.93	88.72	99.99
Escherichia coli O157	3.18	99.99	53.84	99.98
Faecalibacterium prausnitzii	16.66	100.00	100.00	99.99
Methanobacterium smithii	100.00	100.00	100.00	100.00
Oxalobacter formigenes	100.00	100.00	100.00	100.00
Ruminococcus albus	100.00	100.00	100.00	100.00
Ruminococcus bromii	20.00	100.00	100.00	99.99
Ruminococcus gnavus	20.00	99.99	66.66	99.99
Salmonella enterica	98.99	99.99	99.84	99.99
Salmonella bongori	4.16	100.00	100.00	99.99
Shigella boydii	14.46	99.99	30.26	99.99
Shigella sonnei	35.06	99.99	72.00	99.99
Shigella flexneri	12.03	99.99	35.25	99.97
Shigella dysenteriae	49.35	99.99	60.31	99.99
Streptococcus sanguinis	93.25	100.00	100.00	99.99
Streptococcus thermophilus	8.69	100.00	100.00	99.99
Vibrio cholerae	98.84	99.99	96.79	99.99
Yersinia enterocolitica	8.18	99.99	63.63	99.99

FIGURE 9B

12 / 18

S145

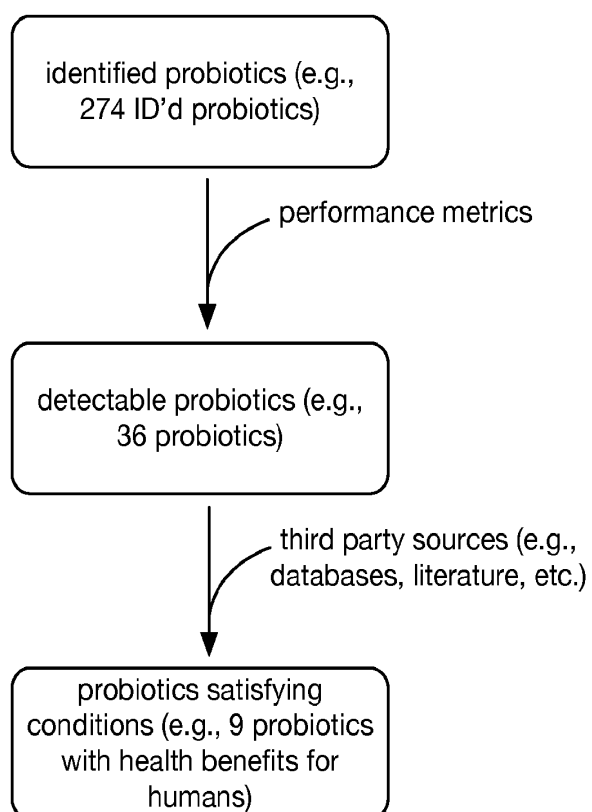


FIGURE 10

FIGURE 11

FIGURE 12

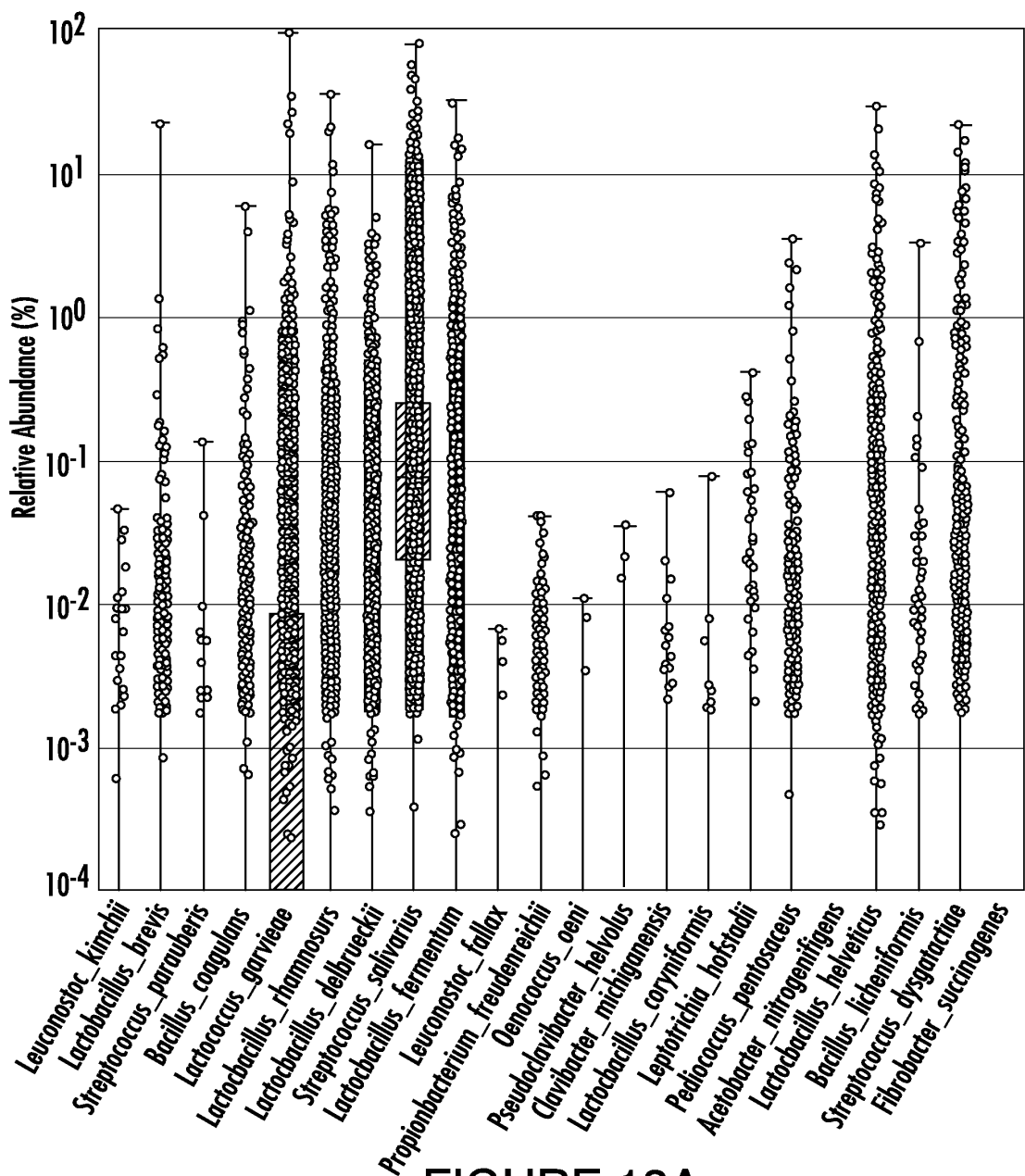


FIGURE 13A

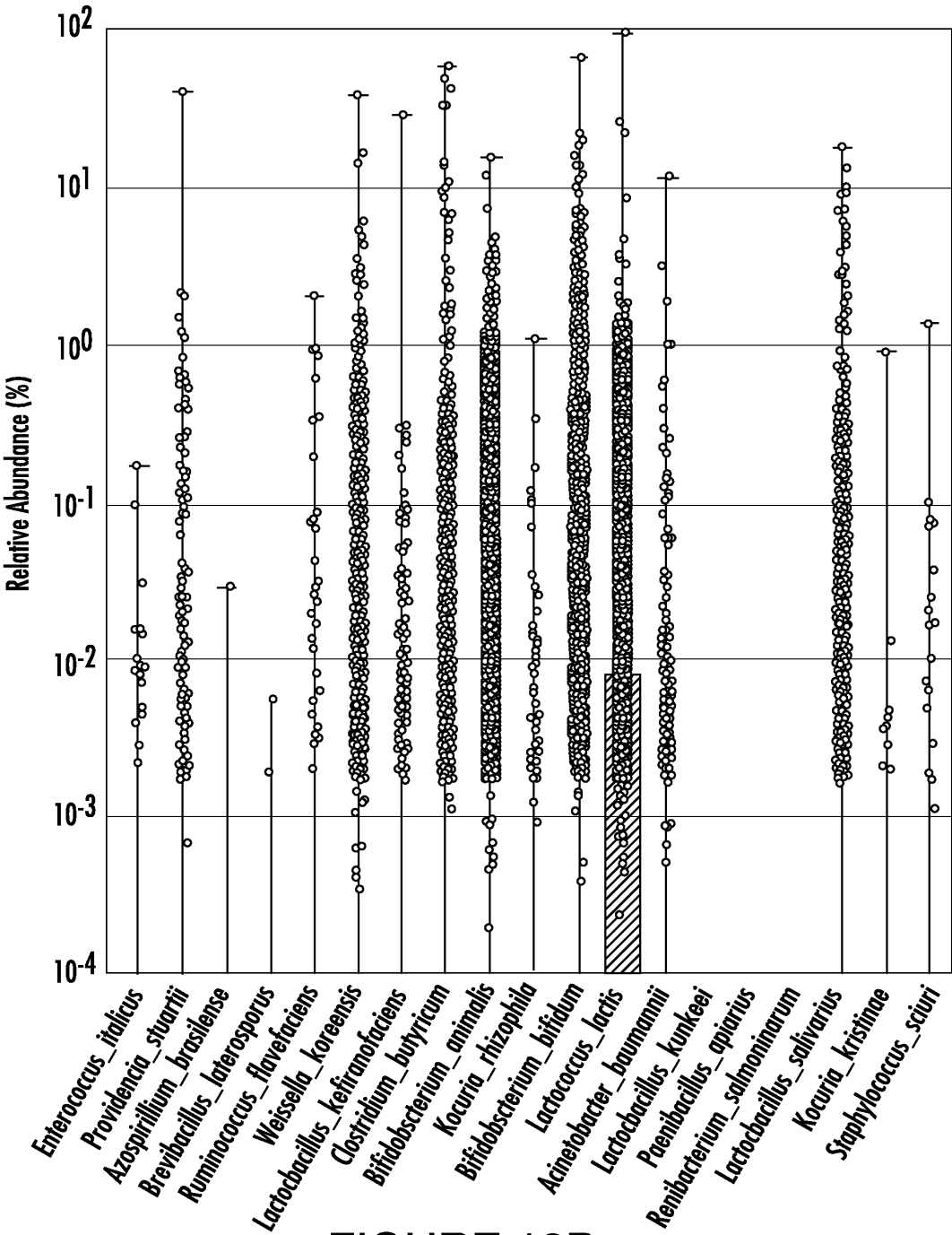


FIGURE 13B

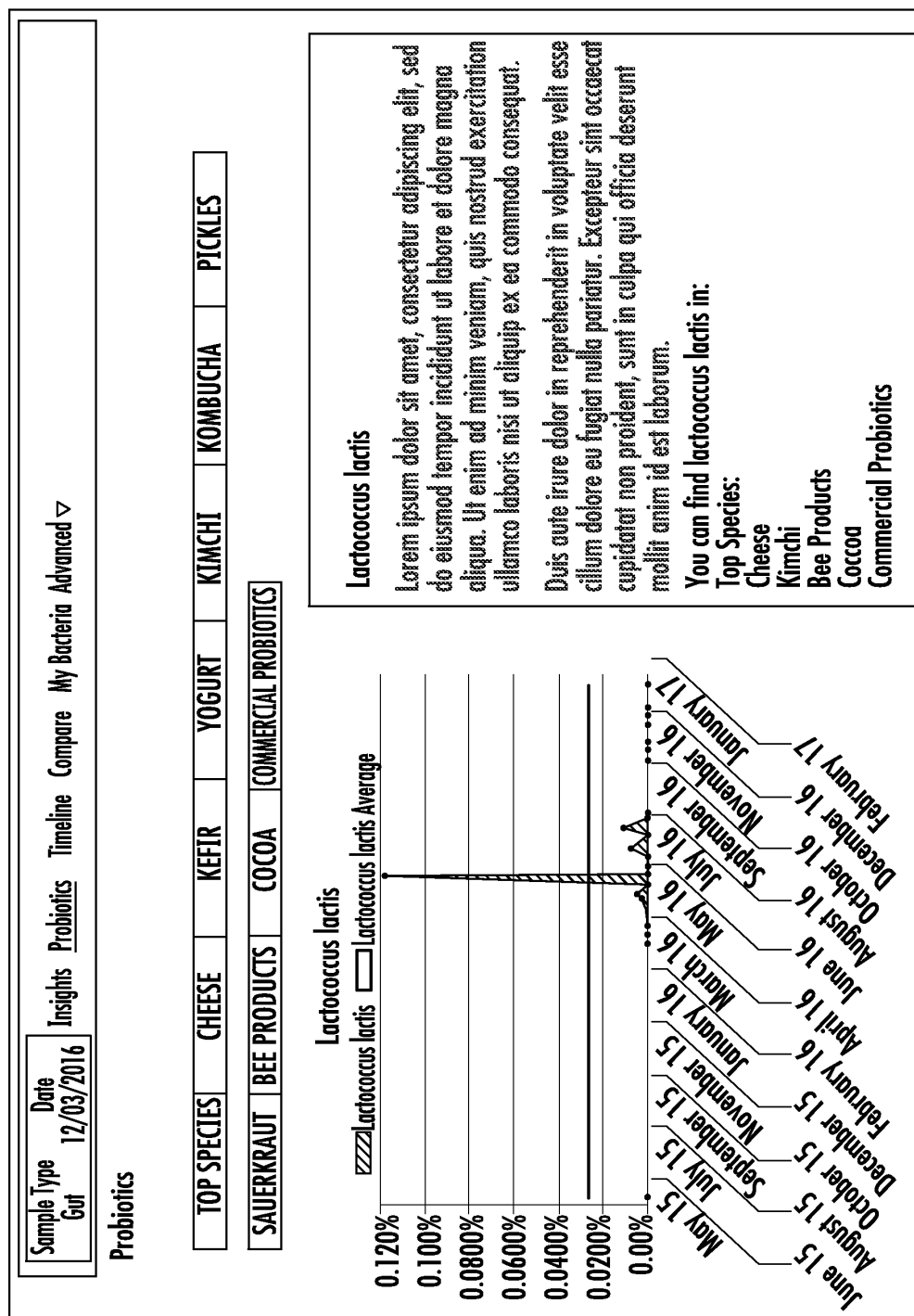


FIGURE 14

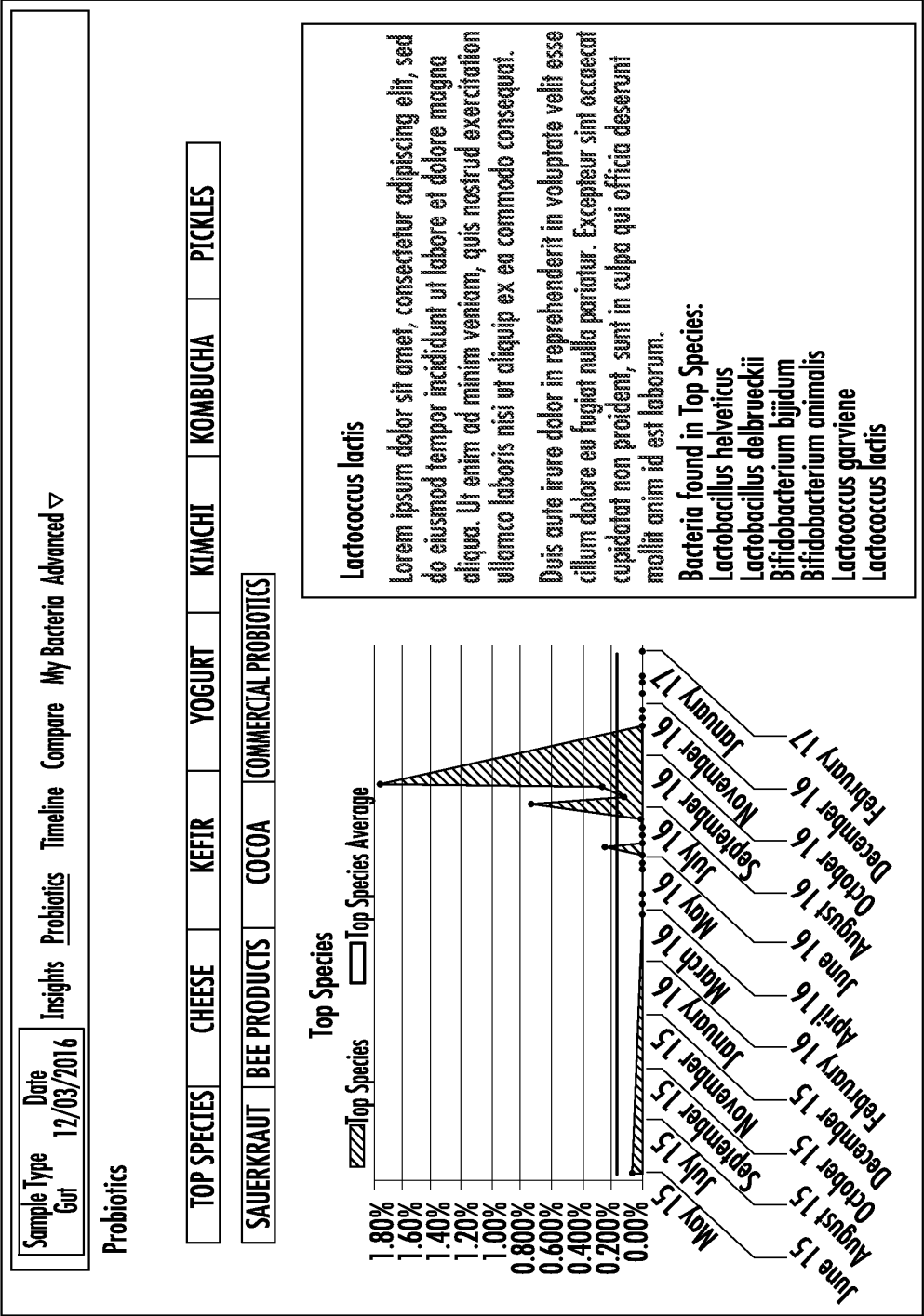


FIGURE 15