

Patient: Ima Sample  
Collected: 2/10/2018  
DOB: 7/11/1981

Accession: 20180212-0001  
Received: 2/12/2018  
Completed: 1/9/2019

Ordered by: Diane Farhi, MD

## Pathogens

### Bacterial Pathogens

	Result		Normal
<i>Campylobacter</i>	<dl		<1.00e3
<i>C. difficile</i> , Toxin A	<b>1.21e5</b>	<b>High</b>	<1.00e3
<i>C. difficile</i> , Toxin B	<b>2.27e5</b>	<b>High</b>	<1.00e3
Enterohemorrhagic <i>E. coli</i>	<dl		<1.00e3
<i>E. coli</i> O157	<b>8.60e0</b>		<1.00e3
Enteroinvasive <i>E. coli</i> /Shigella	<dl		<1.00e2
Enterotoxigenic <i>E. coli</i> LT/ST	<dl		<1.00e3
Shiga-like Toxin <i>E. coli</i> stx1	<dl		<1.00e3
Shiga-like Toxin <i>E. coli</i> stx2	<dl		<1.00e3
<i>Salmonella</i>	<dl		<1.00e4
<i>Vibrio cholerae</i>	<dl		<1.00e5
<i>Yersinia enterocolitica</i>	<b>4.46e1</b>		<1.00e5

### Parasitic Pathogens

	Result		Normal
<i>Cryptosporidium</i>	<dl		<1.00e6
<i>Entamoeba histolytica</i>	<dl		<1.00e4
<i>Giardia</i>	<dl		<5.00e3

### Viral Pathogens

	Result		Normal
Adenovirus 40/41	<dl		<1.00e10
Norovirus GI/II	<dl		<1.00e7

**H. pylori**

	Result		Normal
<i>Helicobacter pylori</i>	<b>2.9e3</b>	<b>High</b>	<1.0e3
Virulence Factor, babA	<b>Positive</b>		Negative
Virulence Factor, cagA	<b>Positive</b>		Negative
Virulence Factor, dupA	<b>Negative</b>		Negative
Virulence Factor, iceA	<b>Negative</b>		Negative
Virulence Factor, oipA	<b>Negative</b>		Negative
Virulence Factor, vacA	<b>Negative</b>		Negative
Virulence Factor, virB	<b>Positive</b>		Negative
Virulence Factor, virD	<b>Positive</b>		Negative

**Normal Bacterial Flora**

	Result		Normal
<i>Akkermansia muciniphilia</i>	<b>3.1e4</b>		1.0e1 - 1.0e5
<i>Bacteroides spp.</i>	<b>1.1e11</b>		1.6e9 - 2.5e11
<i>Bifidobacterium spp.</i>	<b>2.4e10</b>		>6.7e7
<i>Clostridia (class)</i>	<b>8.3e6</b>		1.2e3 - 1.0e7
<i>Enterococcus spp.</i>	<b>4.9e7</b>		1.9e5 - 2.0e8
<i>Escherichia spp.</i>	<b>6.1e5</b>	<b>Low</b>	3.7e6 - 3.5e9
<i>Faecalibacterium prausnitzii</i>	<b>1.1e7</b>	<b>High</b>	1.8e4 - 2.0e6
<i>Lactobacillus spp.</i>	<b>6.25e6</b>		8.6e5 - 6.2e8
<i>Enterobacter spp.</i>	<b>9.16e6</b>		1.0e6 - 5.0e7

**Phyla Microbiota**

	Result		Normal
<i>Bacteroidetes</i>	<b>4.33e11</b>	<b>Low</b>	8.61e11 - 3.31e12
<i>Firmicutes</i>	<b>1.25e11</b>		5.70e10 - 3.04e11
<i>Firmicutes:Bacteroidetes Ratio</i>	<b>0.29</b>		<1.00

**Opportunistic Bacteria**

<b>Additional Dysbiotic/Overgrowth Bacteria</b>	Result		Normal
<i>Bacillus spp.</i>	<b>8.30e4</b>		<1.50e5
<i>Enterococcus faecalis</i>	<b>2.56e3</b>		<1.00e4
<i>Enterococcus faecium</i>	<b>1.11e3</b>		<1.00e4
<i>Methanobacteriaceae</i> (family)	<b>8.1e6</b>	<b>High</b>	<1.00e4
<i>Morganella spp.</i>	<b>&lt;dl</b>		<1.00e3
<i>Pseudomonas spp.</i>	<b>7.37e4</b>	<b>High</b>	<1.00e4
<i>Pseudomonas aeruginosa</i>	<b>&lt;dl</b>		<5.00e2
<i>Staphylococcus spp.</i>	<b>1.93e4</b>	<b>High</b>	<1.00e4
<i>Staphylococcus aureus</i>	<b>1.23e1</b>		<5.00e2
<i>Streptococcus spp.</i>	<b>1.34e3</b>	<b>High</b>	<1.00e3

<b>Potential Autoimmune Triggers</b>	Result		Normal
<i>Citrobacter spp.</i>	<b>&lt;dl</b>		<5.00e6
<i>Citrobacter freundii</i>	<b>&lt;dl</b>		<5.00e5
<i>Fusibacterium spp.</i>	<b>1.41e3</b>		<1.00e4
<i>Klebsiella spp.</i>	<b>2.48e4</b>	<b>High</b>	<5.00e3
<i>Klebsiella pneumoniae</i>	<b>1.41e4</b>		<5.00e4
<i>M. avium subsp. paratuberculosis</i>	<b>&lt;dl</b>		<5.00e3
<i>Prevotella copri</i>	<b>&lt;dl</b>		<1.00e7
<i>Proteus spp.</i>	<b>&lt;dl</b>		<5.00e4
<i>Proteus mirabilis</i>	<b>&lt;dl</b>		<1.00e3

**Fungi/Yeast**

	Result		Normal
<i>Candida spp.</i>	<b>&lt;dl</b>		<5.00e3
<i>Candida albicans</i>	<b>&lt;dl</b>		<5.00e2
<i>Geotrichum spp.</i>	<b>&lt;dl</b>		<3.00e2
<i>Microsporidium spp.</i>	<b>&lt;dl</b>		<5.00e3
<i>Rodotorula spp.</i>	<b>&lt;dl</b>		<1.00e3

**Viruses**

	Result		Normal
<i>Cytomegalovirus</i>	<b>&lt;dl</b>		<1.00e5
<i>Epstein Barr Virus</i>	<b>&lt;dl</b>		<1.00e7

**Parasites**

<b>Protozoa</b>	Result	Normal
<i>Blastocystis hominis</i>	<dl	<2.00e3
<i>Chilomastix mesnili</i>	<dl	<1.00e5
<i>Cyclospora spp.</i>	<dl	<5.00e4
<i>Dientamoeba fragilis</i>	<dl	<1.00e5
<i>Endolimax nana</i>	<dl	<1.00e4
<i>Entamoeba coli</i>	<dl	<5.00e6
<i>Pentatrichomonas hominis</i>	<dl	<1.00e2

<b>Worms</b>	Result	Normal
<i>Ancylostoma duodenale</i>	<b>Not Detected</b>	Not Detected
<i>Ascaris lumbricoides</i>	<b>Not Detected</b>	Not Detected
<i>Necator americanus</i>	<b>Not Detected</b>	Not Detected
<i>Trichuris trichiura</i>	<b>Not Detected</b>	Not Detected
<i>Taenia spp.</i>	<b>Not Detected</b>	Not Detected

**Intestinal Health**

<b>Digestion</b>	Result	Normal
Elastase-1	<b>388</b>	>200 ug/g
Steatocrit	<b>6</b>	<15 %

<b>GI Markers</b>	Result	Normal
b-Glucuronidase	<b>2584</b> <b>High</b>	<2486 U/mL
Occult Blood - FIT	<b>4</b>	<10 ug/g

<b>Immune Response</b>	Result	Normal
Secretory IgA	<b>1873</b>	510 - 2010 ug/g
Anti-gliadin IgA	<b>15</b>	0 - 157 U/L

<b>Inflammation</b>	Result	Normal
Calprotectin	<b>22</b>	<173 ug/g

<b>Add-on Test</b>	Result	Normal
Zonulin	<b>186.4</b> <b>High</b>	<107 ng/g

## Antibiotic Resistance Genes, phenotypes

<b>Helicobacter</b>		<b>Result</b>		<b>Expected Result</b>	
<b>Amoxicillin</b>		<b>Negative</b>		Absent	
A926G	Absent	AGA926-928TTC	Absent		
<b>Clarithromycin</b>		<b>Positive</b>		Absent	
A2142C	Absent	A2142G	Absent	A2143G	Present
<b>Fluoroquinolones</b>		<b>Negative</b>		Absent	
gyrA N87K	Absent	gyrA D91N	Absent	gyrA D91G	Absent
gyrB S479N	Absent	gyrB R484K	Absent		
<b>Tetracycline</b>		<b>Positive</b>		Absent	
PBP1A S414R	Present	PBP1A T556S	Absent	PBP1A N562Y	Absent

## Antibiotic Resistance Genes, genotypes

## Universal Microbiota Resistance Genes

<b>b-lactamase</b>		<b>Positive</b>		Absent	
TEM-70	Absence	CTXM3	Presence	SHV-24	Presence
VEB-1	Absence	OXA-30	Absence	CTXM35	Absence
toho-3	Absence	CTXM63	Absence	PER-1	Absence
PER-2	Presence	GES-3	Absence	NDM-1	Absence
<b>Fluoroquinolones</b>		<b>Negative</b>		Absent	
qnrA2	Absence	qnrB	Absence		
<b>Macrolides</b>		<b>Positive</b>		Absent	
ermA	Absence	ermB	Presence	ermC	Absence
mefE	Absence				
<b>Vancomycin</b>		<b>Negative</b>		Absent	
vanA1	Absence	vanA2	Absence	vanB	Absence
vanC	Absence				