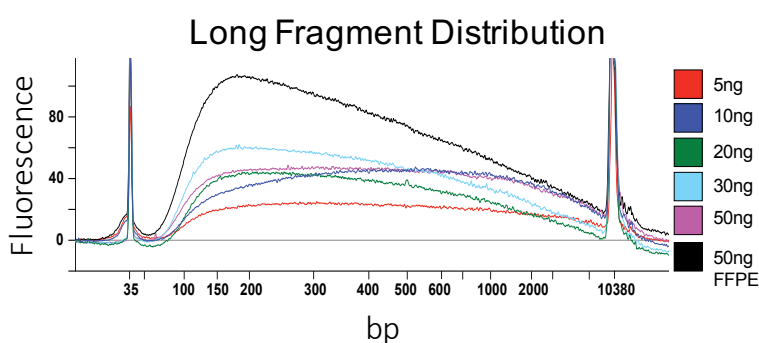
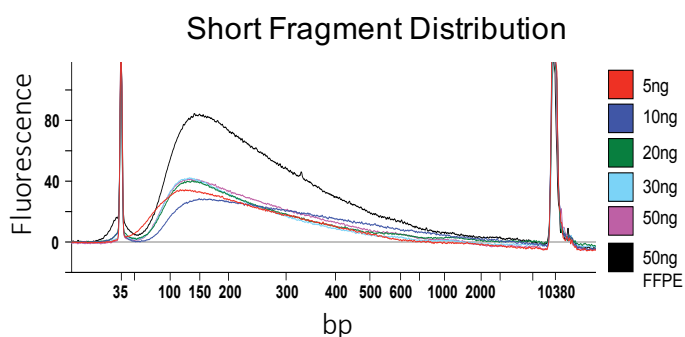


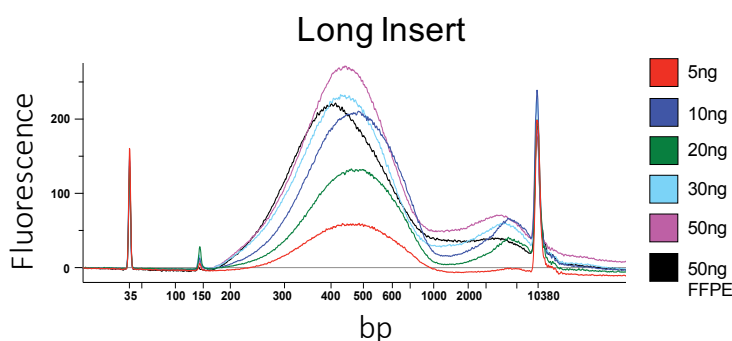
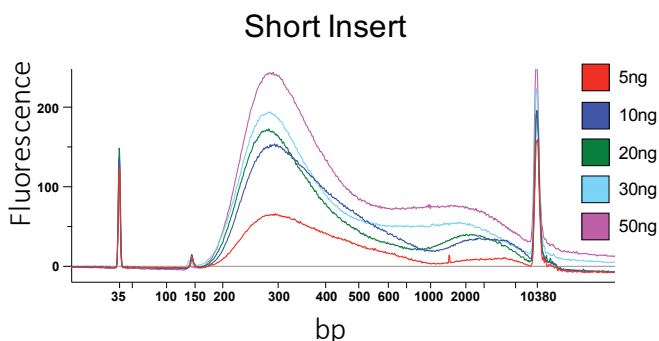
High Quality Across Complex Sample Types

Adjustable Fragment Distribution



Single fragmentation reagent volume (buffer and enzyme for 10 – 100ng input)
Adjustable for controlled fragment distribution

Library Fragment Length Distribution



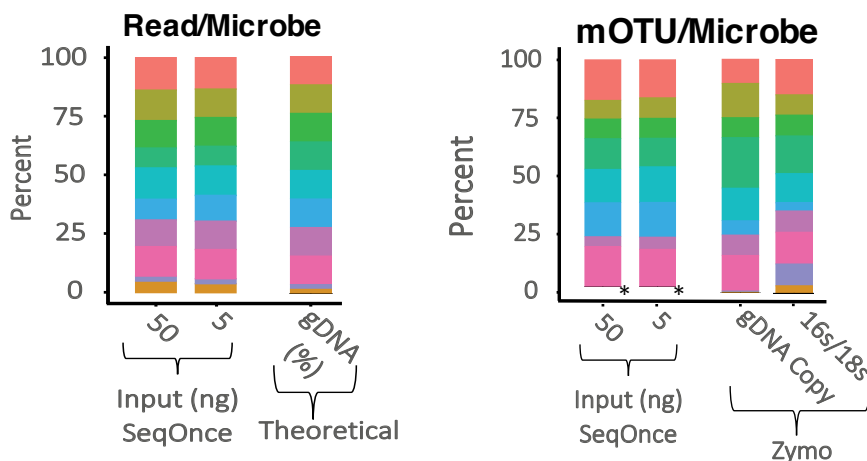
Single library construction reagent volume (buffer and enzymes) for 10 – 100ng inputs
Identical conditions for microbial and human gDNA fragment/library construction

High Quality Across Complex Sample Types

Microbial Characteristics

Species	GC %	Gram Strain	gDNA Abun. (%)
<i>P. aeruginosa</i>	66.2	-	12
<i>E. coli</i>	56.8	-	12
<i>S. enterica</i>	52.2	-	12
<i>L. fermentum</i>	52.8	+	12
<i>E. faecalis</i>	37.5	+	12
<i>S. aureus</i>	32.7	+	12
<i>L. monocytogenes</i>	38.0	+	12
<i>B. subtilis</i>	43.8	+	12
<i>S. cerevisiae</i>	38.4	Yeast	2
<i>C. neoformans</i>	48.2	Yeast	2

Community Sequencing



*Was not included in the mOTU analysis

Microbial Community Sequencing:

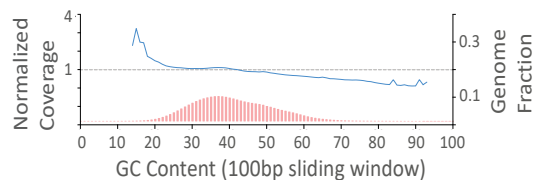
The Zymo Research Microbial Community DNA Standard was used to assay library construction efficiency using the SeqOnce RhinoSeq kit. Zymo indicates mOTU variance as high as 15%.

Human Shallow Sequencing

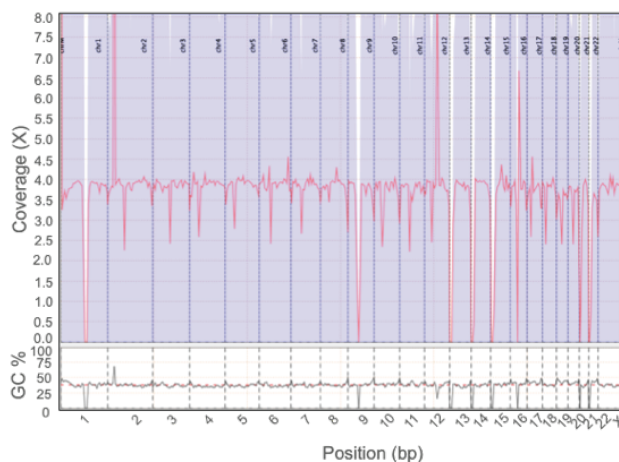
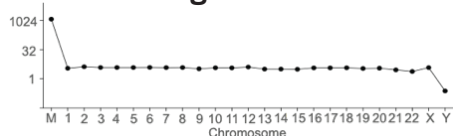
Mapping Characteristics

Average Insert Size (bp)	Input (ng)	Depth (bp)	Genome Coverage	Mapped Reads
102	50	1-10 (avg: 3.6)	+80%	91%

GC Bias



Mean Coverage Per Chromosome



Human Shallow Sequencing and GC Bias:

The RhinoSeq kit was used to generate 50ng input Human short insert gDNA libraries and sequenced (2x150bp reads) to 1-10x coverage. As illustrated, the RhinoSeq kit resulted in minimal GC bias as a result of shallow sequencing. Further analysis and re-sequencing to greater depth with Human gDNA and Human FFPE DNA is ongoing.