Sample submission procedure:
The client will be responsible for filling out a mandate **Sample Submission Form** provided by the CGB. The sample can be delivered to the CGB in person or shipped to the following address:

The Center for Genomics ad Bioinformatics
Indiana University
Myers Hall 162
915 East Third Street
Bloomington, IN 47405

DNA-Seq:
Starting materials
Minimum: 100ng of high molecular weight genomic DNA in 50µl buffer (EB or low TE preferred).
Preferred: 2µg of high molecular weight genomic DNA in 100µl buffer. More is always better.

For small numbers of samples (1-16)
Genomic DNA should be assayed on a gel to ensure that the sample is high molecular weight (greater than 10kb in length) and the gel image should be provided to the CGB upon submission of the sample. The genomic DNA sample should also have been subjected to Nanodrop spectrophotometry to determine sample concentration and purity. 260/280 ratio should be close to 1.8 and 260/230 ratio should be close to 2.0. Nanodrop data concerning sample concentration and purity should be provided to the CGB upon submission of the sample. The genomic DNA sample should be resuspended in an appropriate buffer such as TE, Qiagen EB buffer and water. The volume and identity of the buffer should be provided to the CGB upon submission of the sample.

For large numbers of samples (17 and more)
The CGB will provide an appropriate 96 well plate for sample submission. The client will array genomic DNA samples in the plate column-wise (i.e. in the order of A1, B1, ..H1, then A2, B2..) and use the well number as sample number on the Sample Submission Form. At least 20% of the genomic DNA samples should be run out on a gel to ensure that the genomic DNA samples are high molecular weight (greater than 10kb in length). At least 20% of the samples should also be subjected to Nanodrop spectrophotometry to determine sample concentration and purity. 260/280 ratio should be close to 1.8 and 260/230 ratio should be close to 2.0. Gel image(s) and Nanodrop data are to be provided to the CGB upon submission of the samples. The volume and identity of the buffer should also be provided to the CGB upon submission of the samples.

CGB Quality Control of DNA Samples
The CGB will conduct fluorometric assays (PicoGreen) to verify sample concentration for each sample. If the samples are not sufficiently concentrated we may ask the client to submit additional/replacement samples. If this is not possible due to limited starting material, we may attempt to concentrate them further using the Eppendorf VacuFuge. If the samples are low molecular weight, the client will be asked to provide additional/replacement samples. The CGB reserves the right to reject any sample that does not meet internal QC.

RNA-Seq:
Minimum: 1µg of total RNA in 50ul buffer.
Preferred: 4µg of total RNA in 100ul buffer. More is always better.
Client may also supply pre-isolated mRNA or Ribominus/RiboZero treated RNA. In both cases, 200ng of mRNA is required, although more is always better. The sample will be concentrated to a volume of 5ul using the Eppendorf VacuFuge.

For small numbers of samples (1-16)

The RNA sample should be subjected to Nanodrop spectrophotometry to determine sample concentration and purity. 260/280 and 260/230 ratios should be close to 2.0. Nanodrop data concerning sample concentration and purity should be provided to the CGB upon submission of the sample. The total RNA sample should be resuspended in an appropriate buffer such as RNase-free water. The volume and identity of the buffer should be provided to the CGB upon submission of the sample.

For large numbers of samples (17 and more)

The CGB will provide an appropriate 96 well plate for sample submission. The client will array total RNA samples in the plate column-wise (i.e. in the order of A1, B1, ..H1, then A2, B2..) and use the well number as sample number on the Sample Submission Form. At least 20% of the samples should also be subjected to Nanodrop spectrophotometry to determine sample concentration and purity. 260/280 and 260/230 ratios should be close to 2.0. Nanodrop data are to be provided to the CGB upon submission of the samples. The volume and identity of the buffer should also be provided to the CGB upon submission of the samples.

CGB Quality Control of DNA Samples

The CGB will conduct fluorometric assays (RiboGreen) to verify sample concentration for each sample. The CGB will also conduct RNA integrity assays (TapeStation) to determine the integrity of the RNA and determine the RIN value of the samples. If the samples are not sufficiently concentrated we may ask the client to submit additional/replacement samples. If this is not possible due to limited starting material, we may attempt to concentrate them further using the Eppendorf VacuFuge. If the samples have low RIN values (indication of RNA degradation), the CGB will ask the client to supply replacement samples if possible. The CGB reserves the right to reject any sample that does not meet internal QC.