Details for HiSeq2500 removed. NovaSeq included. Two sections were made;, one for sequencing and one for library preparation. New and expanded project examples. Minor text modifications.

Price examples for NGI Stockholm

1. General pricing information

The examples in this document are **approximate prices for Q3 2018** and are shown here to provide a rough estimate of how much your project will cost. For more detailed information or to **request a binding price estimate please contact orders@ngisweden.se**. **The actual prices may deviate from the estimates stated in this document.**

Our **"best practice" bioinformatics** package which is included in some of our services (e.g. RNA-seq, resequencing and de novo assembly) is free of charge. We also do not charge for planning or follow-up **meetings** with the NGI Stockholm representative(s) (if requested by the user).

NGI provides a very generous pricing for Swedish academia. Instrument depreciations, part of instrument service, rent and labour costs are sponsored by the Swedish Research Council (Vetenskapsrådet) and SciLifeLab. Academic institutions outside of Sweden and users from the private industry pay the full cost (twice as much as prices indicated in this document; please contact us for a price quote or for specific details about your project). **The price estimates in this document are valid only for Swedish academia**.

Other methods (e.g. non-validated library preparation types) are available. Please contact NGI for further information.

Please remember to acknowledge services provided by NGI in all publications and scientific dissemination; this is critical for the future funding of the facility.

2. Sequencing services

2.1 Illumina NovaSeq 6000

NovaSeq 6000 can be used for many sequencing studies, for example RNA-seq, metagenomics, whole genome sequencing, among others.
It can be used with four different flow cells: **S1**, **S2**, **S4** and **S Prime** (see tables 1 to 4 for details). The S1, S2 and S Prime flow cells contain 2 lanes each, and the S4 contains 4 lanes. Libraries can be clustered on one flow cell (standard workflow) or on separate lanes (e.g. because of overlapping indexes).

Table 1. Overview of the Illumina NovaSeq 6000 **S1** flow cell

Number of lanes	2
Read length (bp)	**2x50** / **2x100** / **2x150**
Read-pairs per lane (million)	ca **1000**
Gbp per lane	100-300
Price **per lane (SEK)**	**34 169** / **45 210** / **51 519**

Table 2. Overview of the Illumina NovaSeq 6000 **S2** flow cell

Number of lanes	2
Read length (bp)	**2x50** / **2x100** / **2x150**
Read-pairs per lane (million)	ca **2250**
Gbp per lane	200-600
Price **per lane (SEK)**	**59 800** / **80 279** / **92 002**

Table 3. Overview of the Illumina NovaSeq 6000 **S4** flow cell

Details for HiSeq2500 removed. NovaSeq included. Two sections were made;, one for sequencing and one for library preparation. New and expanded project examples. Minor text modifications.

Price examples for NGI Stockholm

Number of lanes	4
Read length (bp)	**2x 100 / 2x150**
Read-pairs per lane (million))	ca **2500**
Gbp per lane	500-750
Price **per lane (SEK)**	**72 792 / 83 519**

Table 4. Overview of the Illumina NovaSeq 6000 **S Prime** flow cell (to be released by Illumina soon).
ca 400

Number of lanes	2
Read length (bp)	**2x50 / 2x150**
Read-pairs per lane (million)	
Gbp per lane	40-80
Price **per lane (SEK)**	Available during Q4 2018

2.2 Illumina HiSeqX

The Illumina HiSeq X instrument can only be used for **genome resequencing** to at least 15X coverage of the genome size. The flow cell consists of 8 separate lanes (see table 5 for details), and the smallest orderable unit is 1 lane.

Table 5. Overview of the Illumina HiSeq X flow cell.
ca 350

Number of lanes	8
Read length (bp)	**2x150**
Read-pairs per lane (million)	
Gbp per lane	ca 120
Price **per lane (SEK)**	**9 564**

2.3 Illumina MiSeq

The Illumina MiSeq instrument produces much less data than e.g. the NovaSeq, but can deliver longer read lengths. This can for example be useful for **amplicon sequencing** (e.g 16S) and ***de novo* or resequencing** of **smaller genomes**.

Table 6. Overview of the Illumina MiSeq X **v2** flow cell.
ca 10

Number of lanes	1
Read length (bp)	**1x50** / **2x150** / **2x250**
Read-pairs per run (million)	
Gbp (depending on read length)	ca 0,5 / ca 3 / ca 5
Price **per run (SEK)**	**8 828** / **11 353** / **12 716**

Table 7. Overview of the Illumina MiSeq X **v3** flow cell.
ca 18

Number of lanes	1
Read length (bp)	**2x75** / **2x300**

Details for HiSeq2500 removed. NovaSeq included. Two sections were made;, one for sequencing and one for library preparation. New and expanded project examples. Minor text modifications.

Price examples for NGI Stockholm

Read-pairs per run (million)	
Gbp (depending on read length)	ca 3 / ca 12
Price **per run (SEK)**	**9 777 / 17 069**

3. Library preparation services

3.1 Library preparation for RNA-seq (prices per sample)

- Illumina TruSeq strand-specific RNA library prep (poly-A selection): **1 165 SEK**
- Illumina TruSeq strand-specific RNA library prep (RiboZero ribosomal depletion): **1 771 SEK**
- Illumina TruSeq small RNA library prep: **1 723 SEK**

3.2 Library preparation for DNA sequencing

- Illumina TruSeq DNA PCR-free library prep: **979 SEK**
- Rubicon Thruplex DNA-seq library prep: **964 SEK**
- Nextera Mate-pair sample prep kit: **3 303 SEK**
- 10X Genomics Chromium Genome kit: **2 424 SEK**

4. Examples

Example set up for a human transcriptomes:
Total cost for 40 strand-specific libraries in 1 S1 lane on Illumina NovaSeq 6000 (2x50bp): **80 702 SEK**
Price includes library prep using the Illumina TruSeq RNA poly-A selection kit.
(**2018 SEK** and **25M** read-pairs per sample, on average). Price includes best-practice bioinformatics analysis (for certain species).

Total cost for 96 strand-specific libraries in 1 S2 lane on Illumina NovaSeq 6000 (2x50bp): **171 503 SEK**
Price includes library prep using the Illumina TruSeq RNA poly-A selection kit.
(**1786 SEK** and **23M** read-pairs per sample, on average). Price includes best-practice bioinformatics analysis (for certain species).

Example set up for re-sequencing of a human genome:
Total cost for 1 sample is **10 542 SEK**.The price includes library preparation with the Illumina TruSeq DNA PCR-free library prep kit and sequencing in one lane on the Illumina HiSeq X to approximately **30x coverage**. Price includes best-practice bioinformatics analysis.

Example set up for *de novo* sequencing of a 1,5 Gb non-human genome:
Total cost for 1 sample is **11 988 SEK**. The price includes library preparation with the 10X Genomics Chromium Genome kit and sequencing on one lane on the Illumina HiSeq X to approximately **60x coverage**. Price includes a draft assembly using the 10X Chromium Supernova software.