EXPLANATION OF THE PROCUREMENT DOCUMENTS

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In Prague on 5th March 2020

EXPLANATION OF THE PROCUREMENT DOCUMENETS II.

Pursuant to Section 98 of Act No. 134/2016 Coll., On Public Procurement, as amended (hereinafter referred to as the "Act"), the aforementioned contracting entity shall provide you with the following explanation / amendment or supplement to the tender documentation „**Genome and metagenome sequencing using NovaSeq platform"**

Wording request for the explanation of the procurement documents No. 1:

Following question No. 3 from Specifications updated 25.2.: If LANE means 1 LANE on flowcell, then requested output 800GB is not technically possible. Flowcell with highest capacity (S4, 300cycles) got guaranteed output 2400-3000GB by Illumina. This flowcell got 4 LANES, so 600-750GB per LANE. If the output 800GB can be spreaded between more LANES, is it possible joining 3 LANES on 1 Flowcell, so the data output meets requirements?

The explanation of the procurement documents No. 1:

First, we need to differentiate between GB and Gb. Technical specification refers to Gb as number of bases in billion – Giga-bases. Client realize that the manufacturer Illumina guaranteed Gb per LANE is 600-750Gb using S4 flowcell, but commercial sequencing companies exceed these limits. Requested amount 800Gb per LANE is approximate and will differ during the experiments. We are extending the requested Gb per lane to 750-800Gb per LANE. Particular technical solution is contractor competence, if the output will meet Client requirements.

Wording request for the explanation of the procurement documents No. 2:

We see disproportion between requested sequencing outputs between average number of reads and data output. Requested data output 800GB per LANE will have average number of reads 3times higher than requested. The question is, which of these parameters (number of reads x data size) is limiting. If limiting factor is 2.6B per LANE, data output would be 300-400GB.

The explanation of the procurement documents No. 2:

Limiting Factor 2.6billion reads is approximate. If we do have 2.6billion reads per LANE using paired-end sequencing of 150bp than the output will contain approximately 780Gb, what is in the range of 750-800Gb per LANE.

Wording request for the explanation of the procurement documents No. 3:

Will be the libraries (30 units) delivered as a) 30 ready to run pools, or b) 300 separate libraries to be assessed separately and pooled?

The explanation of the procurement documents No. 3:

A – 30 libraries/pools of termite genome will be delivered.

Wording request for the explanation of the procurement documents No. 4:

If b) is correct, than in attachment no. 5 the unit should be changed from 30 to 300.

The explanation of the procurement documents No. 4:

No, A) is correct.

Wording request for the explanation of the procurement documents No. 5:

The required throughput (800Gbp) per lane and the quality threshold (Q30 for more than 80% of samples) is impossible to guarantee as it is above the manufacturer specification. Furthermore, the throughput is directly dependent on the library intrinsic properties (e.g. G/C contenct) and quality, and will be visible after sequencing is performed. We suggest to remove or change this requirement.

The explanation of the procurement documents No. 5

We already changed it.

Wording request for the explanation of the procurement documents No. 6:

Which kit and methodology will be used for library preparation? (e.g. TruSeq DNA PCR-Free, dual index).

The explanation of the procurement documents No. 6:

This is not decided yet. It will be „Dovetail Hi-C kit“ or some of the NEB Next, allowing dual indexing.

Wording request for the explanation of the procurement documents No. 7:

What is the expected insert size in provided libraries?

The explanation of the procurement documents No. 7:

150bp paired-end, insert 500 insert size.

Wording request for the explanation of the procurement documents No. 8:

The attachment no. 5 suggests, that all samples for "termite genomes" will be shipped at once. Is it correct?

The explanation of the procurement documents No. 8:

It is possible, but rather not probable.

Wording request for the explanation of the procurement documents No. 9:

We suggest utilizing Nextera Mate Pair (gel plus) library preparation kit with either <5kbp or 6-10kbp separation. Would that be acceptable for the ordering part?

The explanation of the procurement documents No. 9:

Client usually works with NEB kits, but any kit allowing dual indexing suitable for meatgenomes is fine, especially if it is made by Illumina.

Wording request for the explanation of the procurement documents No. 10:

If it is FFPE (or degraded DNA) is provided, the outcome of MATE-PAIR libraries will not be stable: FFPE samples are degraded and broken and the expected fragments are less than Kbp. Trasnposon fragmentation will cut them even into smaller fragments- frequently below 1kbp and this renders the analysis pointless. Is the ordering part aware of that?

The explanation of the procurement documents No. 10:

Client is aware of that, but FFPE should be minority of samples, if any.

Wording request for the explanation of the procurement documents No. 11:

The attachment n0. 5 suggests that the samples for "Eukaryotic Genomes and Metagenomes" will be shipped in maximum two batches. Is it correct?

The explanation of the procurement documents No. 11:

Although the Client will try to minimize number of shipments, it is higly unlikely to ship everything in just two batches. Shipping costs are, by the way, part of the bid.

Wording request for the explanation of the procurement documents No. 12:

What will be the DNA input parameters for MP libraries in terms of concentration and volume?

The explanation of the procurement documents No. 12:

As the Client will prepare majority of the samples from living tissues, the concentration of DNA input should not be a problem. Usually the DNA has to be diluted. However, Client can not foresee exact concentrations.

The explanation of the procurement documents No. 13

Pursuant to section 99 of the Act, the Contracting Authority decides to extend the deadline for submission of tenders until 26 March 2020 until 9:00.

Best regards

Mgr. Iva Mádlová
Digitally signed by Mgr. Iva Mádlová
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