

100 Enterprise Way, Suite A101 Scotts Valley, CA 95066 * orders@dovetail-genomics.com * (831) 713-4465

Statement of Work

Quote # Q-02262

Columbia University

Deren Eaton

de2356@columbia.edu

Viburnum hartwegii

Library/Sequencing/Informatics Add-On to Existing Opportunity/Project Project

Scope of Work

Dovetail Hi-C Library Preparation

Using the provided tissue, blood, or cell culture Sample, Dovetail will construct one Dovetail Hi-C library per 3 gigabase increment (Gbp) of the organism's genome size.

The Dovetail Hi-C libraries will be QC'd by sequencing ~1-2M PE75bp reads on our MiSeq instrument and mapping the data back to the *de novo* assembly.

Assembly Informatics Package

Using the Chicago and/or Dovetail Hi-C data, as well as the draft assembly, Dovetail will scaffold the *de novo* assembly through our HiRise software pipeline.

If applicable, and depending upon the metrics and complexity of the genome and HiRise output, Dovetail will perform a TAD analysis on the genome, generated from Dovetail Hi-C libraries.

Deliverables

Dovetail will deliver the results files to the Customer electronically via secure FTP. The Results shall consist of:

- HiRise Assembly deliverables include:
 - The HiRise assembly in FASTA format
 - A report summarizing key assembly statistics, features of the Chicago and/or Dovetail Hi-C libraries, and a linkage density plot of the Chicago and/or Dovetail Hi-C data
 - A table detailing the breaks made to the input scaffolds
 - A table describing the position of the input assembly scaffolds within the final HiRise scaffolds
 - BAM file(s) containing alignments of the Chicago and/or Dovetail Hi-C read pairs mapped to the draft assembly
- TAD Analysis deliverables, if applicable, include:
 - TAD calls at 10kbp, 25kbp, and 50kbp
 - CTCF binding sites
 - A/B compartmental organization
 - Isochore locations
 - Guide to loading and viewing data in HiGlass
 - Summary report

Target Timeline/Milestones

At typical project loads, the total run time for this project will be approximately 10 weeks from the receipt of draft assembly, sample, and raw read data when required. This assumes sequencing (when required) will be facilitated by Dovetail.

Dovetail Genomics

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Phone: (831) 713-4465

Email: orders@dovetail-genomics.com



*Quote #: Q-02262

Date Issued: October 7, 2019

Expiration Date: October 31, 2019

Payment Terms: Net 30

To:

Columbia University
Deren Eaton
Department of Ecology and Evolutionary
Biology
1200 Amsterdam Ave
New York, NY 10027
US

*The above Quote # MUST appear on all purchase orders.

Invoicing Schedule

A 50% non-refundable deposit will be invoiced after receipt of Purchase Order and is due within 30 days of the invoice date (Net 30).

A 50% final payment will be invoiced upon delivery of the Results and is due within 30 days of the invoice date (Net 30).

ACTIVITY	QTY	DISC (%)	UNIT PRICE	EXTENDED
Dovetail™ Hi-C for 1-3Gb	1.00	50.00	\$2,000.00	\$2,000.00
Dovetail™ Hi-C additional 1-3Gb	2.00	50.00	\$500.00	\$1,000.00
HiSeqX 2x150bp, 1 lane	2.00		\$2,250.00	\$4,500.00
Assembly Informatics Package	1.00		\$4,000.00	\$4,000.00

Discounts: 20.7% Total Saved: \$3,000.00

Quote Total: \$11,500.00

All Quotes are quoted and payable in US Dollars, inclusive of wire and bank fees. The above Quotation number must appear on all purchase orders, which signifies the parties agree to the Project details described in this Statement of Work (SOW). Acceptance of this SOW/ Quote is also acknowledgment and acceptance of our Standard Terms and Conditions. All deposits are non-refundable. Work will only commence upon receipt of initial deposit.