

## BGI AMERICAS CORPORATION SERVICE AGREEMENT

Effective Date: 2015-5-6

Expiration Date: 2017-5-5

### Provider

BGI AMERICAS CORPORATION

One Broadway, 3rd Floor

Cambridge, MA 02142, USA

Phone: (617) 500-2741

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### Prepared For

Contact Name: Sam White

Institution Name: University of Washington

Phone:

Email: samwhite@uw.edu

Address: Foege Building, S413 3720 15th Avenue NE Seattle, WA 98195-5065, Seattle, WA 98195, USA

### Prepared By

Name: Frank Hu

Phone: 510-461-6599

Email: frank.hu@bgiamericas.com

## 1. Overview of Services

Provider shall provide services listed in the table below to Customer.

Product Name	Genome Survey (Plant or Animal)
Sample Type	Genomic DNA
Sample Number	1
Species Name	Ostrea lurida
Sequencing Platform	Hiseq 4000
Read Length	NA
Data output	100 X clean data expected
Bioinformatics	Both Standard and Advanced Bioinformatics
Turnaround Time	40-60 business days upon the successful pass of sample QC at BGI

## 2. Technical terms

### 2.1 Sample Requirements

### 2.2 Sample Submission

All samples must be delivered to BGI Tech Solutions in accordance with sample requirements listed above, find more information at [BGI TechSolutions Sample Submission Instructions](#) . Once you get a project number from your BGI service representative and get ready to submit samples, please submit sample information online by following the [BGI Sample Submission Guide](#) one or two days prior to shipping. When you complete the online submission, you may send samples and a hard copy of sample information form to the address showed on the form.

### 2.3 Bioinformatics contents

Standard bioinformatics analysis

Filter out adapters and some low quality reads.

Advanced bioinformatics analysis

- 1) K-mer depth distribution analysis and genomic size estimate;
- 2) Genome heterozygous rate estimate;
- 3) Preliminary assembly;
- 4) GC-depth distribution analysis.

Customized bioinformatics analysis

We can also provide customized bioinformatics service to meet customer's needs. Should be discussed case by case.

## 3. Project Deliverables

3.1 Provider shall provide sequencing service for 1 *Ostrea lurida* Genomic DNA samples , 100 X clean data expected will be generated, Both Standard and Advanced Bioinformatics is included. The data is in FASTQ format.

3.2 Data and bioinformatics result (if any) will be delivered by hard drive provided by BGI.

#### 4. Service Fees

Product Name	Quantity	Sales Price (USD)	Total Amount (USD)
library prep for 300bp,500bp,800bp,2k,5k and 10k	1	3,950	3,950
Hiseq PE 150 sequencing for 300bp library	1	2,100	2,100
Hiseq PE 150 sequencing for 500bp library	1	1,200	1,200
Hiseq PE 150 sequencing for 800bp library	1	1,200	1,200
Hiseq PE 75 sequencing for 2k mate pair library	1	2,325	2,325
Hiseq PE 75 sequencing for 5k mate pair library	1	2,190	2,190
Hiseq PE 75 sequencing for 10k mate pair library	1	3,901	3,901
draft assembly	1	5,000	5,000
500 Gb hard drive	1	160	160
Grand Total: USD 22,026			

#### Terms:

- Prices quoted above are subject to BGI AMERICAS CORPORATION TERMS AND CONDITIONS version 08/25/2013 attached herein.
- To accept this Quotation, please submit a purchase order for each of the line items at the unit prices quoted above to:  
BGI Americas Corporation, Attention: Order Processing, One Broadway, 14th Floor, Cambridge MA 02142. Email: [bgia-orders@bgiamericas.com](mailto:bgia-orders@bgiamericas.com) FAX: 617-500-2742.
- 50% of the Total Order \$11,013.00 is payable, and will be invoiced, upon the samples pass sample QC at BGI and move forward for the next step. The uninvoiced remaining balance \$11,013.00 will be invoiced upon Data delivery. BGI Americas may issue an invoice in advance if a request from Customer is received.
- All payments shall be due thirty (30) days after the date of the invoice from BGI Americas. Prices do not include VAT or any other sales taxes.
- All samples must be delivered to BGI Americas in accordance with BGI Americas Sample Acceptance Policy.
- All unused samples shall be destroyed by BGI Americas thirty (30) days after data delivery and BGI Americas will not be responsible for the return of unused samples.
- The data will be deleted by BGI Americas thirty (30) days after shipment to Customer. Please inquire for the associated costs beyond this thirty (30)-day period.

**Note for the Purchasing Department:**

- 1) Please ensure the PO references BGI Americas Terms and Conditions.
- 2) Please ensure to reference the product name, quantity and the project number in the PO. A project number will be assigned after the quote is approved by BGI Americas Corporation.

**Terms and Conditions:**

This quote is governed by the EXHIBIT A BGI AMERICAS CORPORATION TERMS AND CONDITIONS OF SERVICES.

IN WITNESS WHEREOF, the Parties have executed this Agreement in duplicate originals by their duly authorized representatives as of the Effective Date.

SIGNED for and on behalf of		SIGNED for and on behalf of	
Name:	Sam White	Name:	Frank Hu
Title:	Postdoc Researcher	Title:	Sales Representative, Northwest Territory
Company:	University of Washington	Company:	BGI AMERICAS CORPORATION
Signature:		Signature:	
Date:		Date:	

## EXHIBIT A

### BGI AMERICAS CORPORATION TERMS AND CONDITIONS OF SERVICES

These Terms and Conditions of Services (these “Terms and Conditions”) apply to the provision of Services and Deliverables set forth on the cover page of this Agreement (“Cover Page”) signed by Provider and Customer. Provider does not accept, expressly or impliedly, and Provider hereby rejects, any additional or different terms or conditions that Customer may present, including but not limited to, any terms or conditions contained or referenced to in any order, acceptance, acknowledgment, or other document, or established by trade usage or prior course of dealing, unless Provider expressly and unambiguously agrees to such terms and conditions in a duly signed writing.

<p>1. DEFINITIONS.</p> <p>Unless the context otherwise requires, capitalized terms used in this Agreement shall have the following meanings:</p> <p>1.1 “Agreement” means the BGI AMERICAS CORPORATION Service Agreement signed by and between Provider and Customer, including these Terms and Conditions, as well as other exhibits and schedules attached thereto (if any), which are incorporated thereto by reference and form an integral part thereof.</p> <p>1.2 “Intellectual Property” means patents, patent applications, inventions, ideas, data, analysis, results, concepts, discoveries, models, design information, material preparations, apparatus, compositions of matter, methods or processes, know-how, trade secrets, technical information, copyrights (including, without limitation, software, firmware, algorithms, computer programs, and multi-media works), and other intellectual, proprietary or industrial property (whether registered, unregistered or pending).</p> <p>2. SAMPLES.</p> <p>2.1 All Samples must be delivered by Customer to the site designated by Provider no later than fifteen (15) days after execution of the Agreement, unless extended by mutual written consent of Provider and Customer.</p> <p>2.2 Customer represents and warrants that (a) it owns or has the right to provide the Samples to Provider for use in connection with the Project, and such delivery and use will not violate any obligation that Customer owes to any person or entity; (b) it has secured all approvals, licenses, permits and registrations that are required to deliver the Samples to Provider for use in connection with the Project, and (c) Provider’s use of the Samples for the Project will not infringe any Intellectual Property or other propriety rights of any third party, or violate any legal or ethical requirements. In the event of any breach of any of the foregoing representations and warranties, Customer shall indemnify and hold harmless Provider and its affiliates, and their respective directors, officers, employees, representatives, licensors and agents</p>	<p>(collectively, “Provider Indemnitees”) from and against any loses, costs, damages, liabilities or claims of any kind relating to or resulting from such breach.</p> <p>2.3 Customer shall strictly follow Provider’s instructions for shipping and handling the Samples. Customer shall ensure that at the time when it is delivered to Provider, each Sample shall meet the applicable sample quality control criteria established by Provider. Provider reserves the right to change the sample quality control criteria from time to time; provided that Provider shall promptly provide Customer with written notification of any such changes.</p> <p>2.4 Provider shall not be required to start performing any Services or carry out any activities under the Project if Customer fails to deliver sufficient amount of Samples that conform to the applicable sample quality control criteria for the Project, or the completed sample information sheet in accordance with this Agreement; nor shall Provider be liable to Customer for any delay in completing the Services and/or the Project arising from or caused by such failure.</p> <p>2.5 For clarity, nothing contained in the Agreement or these Terms and Conditions shall prohibit or restrict Provider from conducting sequencing activities on its own samples or samples provided by any third party that are the same as or similar to the Samples as long as Provider does not use the Samples in conducting such sequencing activities for itself or the third party.</p> <p>3. DELIVERABLES.</p> <p>3.1 Upon completion of the Services, Provider shall provide to Customer a report containing the information specified in Section 1 of the Cover Page, as well as such other information as the Parties may mutually agree in writing (collectively, the “Deliverables”). If Customer receives the concluding reports with no feedback within a month ,it shall be deemed as this project delivery result satisfied to Customer. Provider will provide all the Deliverables through a secured website or server to Customer. If Customer requires the Deliverables be delivered in the form of a hard disk, extra cost as indicated in the Cover Page will be charged to Customer.</p>
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<p>3.2 With respect to any given Sample, Provider shall be deemed to have completed the Services for such Sample upon its delivery of the applicable Deliverables therefor, and Provider shall have no obligation to perform any further Services on such Sample after the applicable Deliverables have been delivered to the Customer.</p> <p>3.3 After the Services for all Samples are completed and all of the Deliverables therefor are delivered to Customer, the Project shall be deemed completed, and Provider shall answer Customer's queries by phone or email regarding the Deliverables during normal business hours for six months after the date of delivery, and keep all the data generated in the Project only for three months after the completion date, in each case, free of charge. Provider shall destroy the data at the end of the three months period. If Customer desires storage of the data beyond the three months period, it shall notify Provider of such request at least 7 days before the end of the three months period in writing, and sign a supplemental agreement setting forth the fees, amount and timeframe for the data storage service. If the Parties fail to sign such a supplemental agreement prior to the end of the three months period, Provider shall have the right to destroy the data without further Customer's prior written consent.</p> <p>4. SERVICE FEES. Fees for the Services provided hereunder are specified in Section 4 of the Cover Page, and are valid solely for the Project during the period set forth therein..Unless otherwise specified in the Cover Page, prices are for the specific quantity stated and do not include taxes or charges for transportation, insurance, special packaging, or marking.</p> <p>5. PAYMENT TERMS.</p> <p>5.1 Customer shall identify and provide contact information for individual(s) to whom invoices should be sent in the Cover Page. The invoices shall be deemed received by Customer (a) if sent by personal delivery, on the date of personal delivery; (b) if sent by post, on the seventh (7th) day after the date mailed (as indicated by the postmark) by registered airmail, postage prepaid, or the third day after delivery to EMS or any other internationally recognized courier service, or (c) if sent by facsimile shall be deemed effectively given upon receipt by the sender of a confirmed transmittal receipt.</p> <p>5.2 Customer agrees to pay the entire amount of each invoice issued by Provider without offset or deduction. Unless specified otherwise in the Cover Page, payment terms are net thirty (30) days from date of invoice.</p> <p>5.3 If payment is not received by the due date, interest</p>	<p>shall accrue on all unpaid amounts at the rate of 1.5% per month or the maximum legally permitted rate, whichever is higher.</p> <p>5.4 All payments made by Customer to Provider shall be made in United States Dollars via check, credit card or wire transfer to a bank account specified in the Cover Page or otherwise designated by Provider from time to time in writing.</p> <p>5.5 In the event that Customer fails to make any payment that becomes due and payable by the applicable due date, Provider shall not be required to provide any further Services under this Agreement until such payment is made in full, nor shall Provider be liable to Customer for any delay in completing the Services and/or the Project arising from or caused by such failure.</p> <p>6. TRANSFORM TERMS. The parties confirm that the transfer application must be made in writing and must be signed by Customer. If Customer fails to submit in written form within ten (10) working days after its application, it will be considered as customer's acceptance of Provider's transform mode. And the Provider has the right to dispose the transfer in a reasonable way.</p> <p>7. TAXES. Customer shall be responsible for the payment of any and all sales, use, and excise taxes and all other taxes and, if any, charges other than income taxes, assessed in connection with the Services or this Agreement.</p> <p>8. OWNERSHIP.</p> <p>8.1 Subject to the terms and conditions of this Agreement (including Customer's compliance with the payment obligations), all Deliverables to be delivered by Provider to Customer hereunder shall be exclusively owned by Customer; provided that ownership in the Deliverables shall revert in its entirety to Provider if Customer fails to make any payment that becomes due and payable at the applicable due date, which failure remains uncured after 30 days from such due date. [Customer hereby agrees to grant to Provider a worldwide, perpetual, fully paid-up, royalty-free and non-exclusive right and license to use the Deliverables for any purpose.]</p> <p>8.2 Notwithstanding anything to the contrary, as between the Parties, Provider shall be the exclusive owner of any and all technologies, methods, data, analysis, materials, proprietary information or any other Intellectual Property (i) owned, controlled or used by Provider or any of its affiliates prior to the Effective Date, (ii) acquired or developed by, for or on behalf of Provider at any time</p>
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<p>independently of Services provided hereunder, and/or (iii) developed in performing the Services under this Agreement which are not Deliverables, including in each case, any and all improvements, enhancements, updates, alterations, modifications, derivations or changes thereto (collectively, the "Provider Property"), and shall be free to make, have made, use, sell, or modify, alter, adapt, publish or distribute, and/or otherwise exploit such Provider Property for any purpose whatsoever.</p> <p>8.3 Customer acknowledges and agrees to take all appropriate steps reasonably requested by Provider to secure for Provider all rights and benefits in and to any Provider Property, to protect Provider's rights in Provider Property and to appoint Provider as Customer's attorney-in-fact to enable Provider to record, file and prosecute any application for, and acquire, maintain and enforce, any Intellectual Property rights and any other rights in the Provider Property throughout the world in all languages and in all media and forms of expression and communication now or later developed.</p> <p>9. INDEMNITY. Customer agrees to indemnify, defend and hold harmless Provider Indemnitees from and against any and all losses, expenses (including reasonable legal counsel fees and expenses), costs, liabilities, or damages (the "Losses") to which any Provider Indemnitee may become subject as a result of any claim, demand, action or other proceeding by any third party arising out of (i) any claim of infringement of the ownership, intellectual property rights or any other rights of a third party arising from or relating to the Samples, (ii) any breach by Customer of any representation, warranty, covenant, agreement, or obligation hereunder, or (iii) Customer's use of the Deliverables or any data or information contained therein, including without limitation, Customer's use of the data or the information contained therein to research, develop, or commercialize products. Notwithstanding the foregoing, Customer shall not have any indemnification obligations to the extent any Loss arises out of the gross negligence or willful misconduct of Provider in performance of the Services.</p> <p>10. PUBLICITY. Customer agrees that Provider may publicly identify Customer as a Customer.</p> <p>11. CONFIDENTIALITY.</p> <p>11.1 "Confidential Information" shall mean any and all confidential or proprietary information in tangible form that either Party (the "Receiving Party") may receive from the other Party (the "Disclosing Party") or otherwise acquire under this Agreement, including but not limited to</p>	<p>information regarding the businesses, markets, strategies, service prices, budget, technologies, products, facilities, processes, designs, specifications, requirements, inventions, ideas, trade secrets, know-how, and other confidential or proprietary business, technical and financial information of the Disclosing Party.</p> <p>11.2 The Receiving Party shall use its commercially reasonable efforts to maintain the confidentiality of the Confidential Information of the Disclosing Party and shall not disclose such information to any third party or use it for any purpose other than for performing its obligations hereunder or otherwise expressly permitted herein. Notwithstanding the foregoing, a Receiving Party may disclose the Confidential Information of a Disclosing Party to its employees, officers, directors, agents, consultants, or advisors in order to perform the Receiving Party's obligations or engage in activities contemplated hereunder; provided that such disclosure is made on a need-to-know basis and the receiving parties are bound by confidentiality obligations.</p> <p>11.3 The obligations imposed upon the Receiving Party under Section 11.2 shall not apply to any information which: (a) was already known to the Receiving Party prior to the disclosure; (b) is or becomes publicly known through no fault of the Receiving Party; (c) is rightfully obtained by the Receiving Party from a third party with no obligation of confidentiality; (d) is developed independently by the Receiving Party without the use of or reference to the Disclosing Party's Confidential Information; (e) is approved for release by prior written consent of the Disclosing Party; or (f) is required to be disclosed by any applicable law or regulation or any order of a court of competent jurisdiction or governmental agencies, provided however, that prior to such disclosure the Receiving Party shall inform the Disclosing Party sufficiently in advance to provide the Disclosing Party an opportunity to take necessary protective measures to prevent or limit the disclosure of such Confidential Information.</p> <p>11.4 The obligations set forth in Section 11 shall remain in effect during the term of this Agreement and for five (5) year following the expiration or early termination of this Agreement.</p> <p>12. CHANGES. Provider reserves the right to change the methodologies used in performing the Services.</p> <p>13. ASSIGNMENT. Customer shall not be permitted to assign or otherwise transfer its rights or obligations under this Agreement without the prior written consent of the</p>
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<p>Provider. Any assignment or attempted assignment in violation of this Section 13 shall be null and void and of no legal effect. Provider may assign this Agreement and/or its rights or delegate its obligations hereunder to an affiliate, in whole or in part, without prior written consent of Customer.</p> <p>14. Customer represents and warrants to Provider that (a) it has the full power and authority to enter into and to perform this Agreement, and there is no contract, agreement, promise, undertaking or other fact, conflict and/or circumstance which would prevent the full execution and performance of this Agreement by it, and (b) it will comply with all local, state, and federal regulations and laws, or the foreign equivalents thereof, in the performance of its obligations under this Agreement, including without limitation, the delivery of Samples to Provider.</p> <p>15. TERM AND TERMINATION.</p> <p>15.1 The term of this Agreement ("Term") shall commence on the Effective Date and shall continue until (a) the Project has been completed, or (b) the Agreement is terminated earlier under this Section 15</p> <p>15.2 Provider may terminate this Agreement, at any time and at its sole discretion (a) upon fifteen (15) days' written notice to Customer; or (b) immediately upon notice to Customer in the event that Customer (i) becomes insolvent or unable to pay its debts as they become due (ii) makes an assignment for the benefit of creditors; (iii) becomes the subject of any bankruptcy, insolvency, or similar proceeding; or (iv) is acquired by or merges with or into another party. Sections 1, 2.5 and 5 to 21 of these Term and Conditions shall survive any termination or expiration of this Agreement, and expiration or termination of this Agreement shall not relieve either Party of any obligation accrued prior to such expiration or termination and shall have no prejudice to other remedies such Party may have at law or equity. For clarity, after the termination of this Agreement for any reason, Provider shall invoice Customer fees for Services provided through the date of termination, and Customer shall pay such invoiced amount promptly, but in any event no later than thirty (30) days after the date of the invoice.</p> <p>16. NO WARRANTIES. EXCEPT AS EXPRESSLY SET FORTH HEREIN, PROVIDER MAKES NO WARRANTIES OR REPRESENTATIONS OF ANY KIND AS TO ANY MATTER WHATSOEVER. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE</p>	<p>LAW, PROVIDER HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES AND CONDITIONS, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE, WITH RESPECT TO THE SERVICES AND/OR DELIVERABLES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT.</p> <p>17. LIMITATION OF LIABILITY. IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY OR ANY THIRD PARTIES FOR ANY CONSEQUENTIAL, INCIDENTAL, PUNITIVE, CONTINGENT, STATUTORY OR ANY OTHER SPECIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOSS OF PROFITS OR LOSS OF DATA) ARISING OUT OF OR RELATED TO THE AGREEMENT, WHETHER IN CONTRACT, TORT, OR OTHERWISE, EVEN IF PROVIDER WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.</p> <p>18. FORCE MAJEURE. Neither Party shall be liable to the other Party for any failure to perform any of its obligation hereunder to the extent that such failure is due to circumstances beyond its control. The affected Party shall notify the other Party as soon as practicable of the occurrence of any such circumstance, and the Parties shall meet to consider what steps, if any, can be taken to overcome such circumstance.</p> <p>19. COUNTERPARTS. This Agreement is executed in two sets of two counterparts, each of which shall be deemed to be an original. Each set with both counterparts shall constitute one and the same agreement.</p> <p>20. MISCELLANEOUS.</p> <p>20.1 In the event of any inconsistency or conflict between the provisions of the Cover Page and these Terms and Conditions: (a) in so far as they relate to payment terms, Service Fees, procedures for handling and shipping of samples, or delivery of Deliverables, the provisions of the Cover Page shall prevail; and (b) in all other instances, provisions of these Terms and Conditions shall prevail.</p> <p>20.2 If any provision hereof should be held invalid, illegal or unenforceable in any jurisdiction, the Parties shall negotiate in good faith a valid, legal and enforceable substitute provision that most nearly reflects the original intent of the Parties and all other provisions hereof shall remain in full force and effect in such jurisdiction and shall be liberally construed in order to carry out the intentions of the Parties as nearly as may be possible. Such</p>
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<p>invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of such provision in any other jurisdiction.</p> <p>20.3 The Cover Page and these Terms and Conditions Agreement, including schedules and exhibits contained herein and therein, set forth all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties and supersedes and terminates all prior agreements and understandings between the Parties. No subsequent alteration, amendment, change or addition to this Agreement shall be binding upon the Parties unless reduced to writing and signed by the respective authorized officers of the Parties. Provider's failure to insist upon strict compliance with any of the terms, covenants, or conditions hereof shall not be deemed a waiver by Provider of such term, covenant, or condition, nor shall any waiver or relinquishment by Provider of, or failure to insist upon strict compliance with, any right, power or remedy hereunder at any one or more times be deemed a waiver or relinquishment by Provider of such right, power or remedy at any other time or times.</p> <p>20.4 Unless otherwise agreed to by Provider in writing, all documents or notices to be delivered by Customer to Provider pursuant to or in connection with this Agreement shall be in the English language or, if any such document or notice is not in the English language, accompanied by an English translation thereof, and the English language</p>	<p>version of any such document or notice shall control for purposes thereof.</p> <p>20.5 The Parties agree that the relationship between the Parties established by this Agreement is that of independent contractors. Furthermore, the Parties agree that this Agreement does not, is not intended to, and shall not be construed to, establish an employment, agency or any other relationship. Except as may be specifically and expressly provided herein, neither Party shall have any right, power or authority, nor shall they represent themselves as having any authority to assume, create or incur any expense, liability or obligation, express or implied, on behalf of the other Party, or otherwise act as an agent for the other Party for any purpose.</p> <p>20.6 Nothing in this Agreement, express or implied, is intended to confer on any person other than the Parties hereto or their permitted assigns, any benefits, rights or remedies.</p> <p>21. GOVERNING LAW, DISPUTE SOLUTION. This Agreement is made in, governed by, and shall be construed in accordance with the laws of the United States of America without reference to conflicts of laws principles. The Parties hereby submit to the exclusive jurisdiction of the courts located in Massachusetts for the purposes of resolving any dispute arising from this Agreement.</p>
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