

DNAnexus Data Processing Addendum

Revision Date: 17-January 2019

This Data Processing Addendum (“**DPA**”) and its applicable DPA Exhibits apply to the Processing of Personal Data by DNAnexus on behalf of the Customer (“**Customer Personal Data**”) in order to provide DNAnexus Platform Services and other professional services (“**Services**”) described in the Master Subscription Agreement (“**Agreement**”), solely to the extent that the Processing of Customer Personal Data is subject to the GDPR (defined below). DPA Exhibits for each Service will be provided in the applicable License/Statement of Work, also known as the Transaction Document (“**TD**”). This DPA forms part of and is subject to the terms of the Agreement (capitalized terms used and not defined herein have the meaning given them in the General Data Protection Regulation 2016/679 (“**GDPR**”). In the event of conflict, the DPA Exhibit prevails over the DPA which prevails over the Agreement except where explicitly set out in the Agreement identifying the relevant Section of the DPA over which it prevails.

1. PROCESSING

1.1 The Customer (a) is the sole Controller of Customer Personal Data or (b) has been instructed by and obtained the authorization of the relevant Controller(s) to agree to the Processing of Customer Personal Data by DNAnexus as set out in this DPA. The Customer appoints DNAnexus as Processor to Process Customer Personal Data. If there are other Controllers, the Customer will identify and inform DNAnexus of any such other Controllers prior to providing their Personal Data, as set out in the DPA Exhibit.

1.2 A list of categories of Data Subjects, types of Customer Personal Data, Special Categories of Personal Data and the Processing activities is set out in the applicable DPA Exhibit for a Service. The duration of the Processing corresponds to the duration of the Service, unless otherwise stated in the respective DPA Exhibit. The nature, purpose and subject matter of the Processing is the provision of the Service as described in the applicable TD.

1.3 DNAnexus will Process Customer Personal Data according to the Customer’s written instructions. The scope of the Customer’s instructions for the Processing of Customer Personal Data is defined by the Agreement, this DPA – including the applicable DPA Exhibit – and, if applicable, Customer’s and its authorized users’ use and configuration of the features of the Service. The Customer may provide further instructions that are legally required (“**Additional Instructions**”). If DNAnexus believes an Additional Instruction violates the GDPR or other applicable data protection laws or regulations, DNAnexus will inform the Customer immediately and may suspend the performance of the Service until the Customer has modified or confirmed the lawfulness of the Additional Instructions in writing. If DNAnexus notifies the Customer that an Additional Instruction is not feasible or the Customer notifies DNAnexus that it does not accept the quote for the Additional Instruction prepared in accordance with Section 10.2 of this DPA, the Customer may terminate the affected Service by providing DNAnexus with a written notice within one month after notification. DNAnexus will refund a prorated portion of any prepaid charges for the period after the termination date.

1.4 If DNAnexus cannot process Customer Personal Data in accordance with Customer’s instructions due to a legal requirement under any applicable European Union or Member State law, DNAnexus will (i) promptly notify the Customer of such inability, providing a reasonable level of detail as to the instructions with which it cannot comply and the reasons why it cannot comply, to the greatest extent permitted by applicable law; and (ii) cease all Processing of the affected Customer Personal Data (other than merely storing and maintaining the security of the affected Customer Personal Data) until such time as the Customer issues new instructions with which DNAnexus is able to comply. If this provision is invoked, DNAnexus will not be liable to the Customer under the Agreement for failure to perform the Services until such time as the Customer issues new instructions that comply with applicable legal requirements.

1.5 The Customer may serve as a single point of contact for DNAnexus. As other Controllers may have certain direct rights against DNAnexus, the Customer undertakes to exercise all such rights on their behalf and to obtain all necessary permissions for other Controllers. DNAnexus shall be discharged of its obligation to inform or notify another Controller when DNAnexus has provided such information or notice to the Customer. Similarly, DNAnexus will serve as a single point of contact for the Customer with respect to its obligations as a Processor under this DPA.

1.6 DNAnexus will comply with all EEA data protection laws and regulations (“**Data Protection Laws**”) in respect to the Services applicable to Processors. DNAnexus is not responsible for determining the requirements of

laws applicable to the Customer's business or that DNAnexus' provision of Services meet the requirements of such laws. As between the parties, the Customer is responsible for the lawfulness of the Processing of the Customer Personal Data. The Customer will not use the Services in conjunction with Personal Data to the extent that doing so would violate applicable Data Protection Laws.

2. TECHNICAL AND ORGANIZATIONAL MEASURES

2.1 DNAnexus will implement and maintain technical and organizational measures set forth in the applicable DPA Exhibit ("TOMs") to ensure a level of security appropriate to the risk for DNAnexus' scope of responsibility. TOMs are subject to technical progress and further development. Accordingly, DNAnexus reserves the right to modify the TOMs provided the functionality and security of the Services are not degraded.

2.2 Customer is solely responsible for reviewing the TOMs and agreeing that they meet Customer's requirements and obligations. The Customer confirms the TOMs provide an appropriate level of protection for the Customer Personal Data taking into account the risks associated with the Processing of Customer Personal Data.

3. DATA SUBJECT RIGHTS AND REQUESTS

3.1 To the extent permitted by law, DNAnexus will inform the Customer of requests from Data Subjects exercising their Data Subject rights (e.g. rectification, deletion and blocking of data) addressed directly to DNAnexus regarding Customer Personal Data. The Customer shall be responsible to respond to such requests of Data Subjects. DNAnexus will reasonably assist the Customer in responding to such Data Subject requests in accordance with Section 10.2 of this DPA.

3.2 If a Data Subject brings a claim directly against DNAnexus for a violation of their Data Subject rights, the Customer will indemnify DNAnexus for any cost, charge, damages, expenses or loss arising from such a claim, to the extent that DNAnexus has notified the Customer about the claim and given the Customer the opportunity to cooperate with DNAnexus in the defense and settlement of the claim. Subject to the terms of the Agreement, the Customer may claim from DNAnexus amounts paid to a Data Subject for a violation of such Data Subject's rights caused by DNAnexus' breach of its obligations under GDPR.

4. THIRD PARTY REQUESTS AND CONFIDENTIALITY

4.1 DNAnexus will not disclose Customer Personal Data to any third party, unless authorized by the Customer or required by law. If a government or data protection authority demands access to the Customer Personal Data, DNAnexus will notify the Customer prior to disclosure, unless prohibited by law.

4.2 DNAnexus requires all of its personnel authorized to Process Customer Personal Data to commit themselves to confidentiality and not Process such Customer Personal Data for any other purposes, except on instructions from the Customer or unless required by applicable law.

5. AUDIT

5.1 DNAnexus shall allow for and assist the Customer in connection with audits, including inspections, of DNAnexus Processing of Customer Personal Data conducted by the Customer or an auditor mandated by the Customer to ascertain DNAnexus compliance with this DPA, in accordance with the following procedures:

(A). At Customer's written request, DNAnexus will provide the Customer or its mandated auditor with the most recent certifications and/or summary audit report(s), which DNAnexus has procured to regularly test, assess and evaluate the effectiveness of the TOMs.

(B). DNAnexus will reasonably cooperate with the Customer to comply with its own or other Controllers' audit obligations or a competent data protection authority's request as it relates to the Processing of Customer Personal Data. The Customer will inform DNAnexus in writing to enable DNAnexus to provide such information or to grant the Customer access to it.

(C). If further information is needed by the Customer to comply with its own or other Controller's audit obligations or a competent data protection authority's request as it relates to the Processing of Customer Personal Data, the Customer shall inform DNAnexus in writing to enable DNAnexus to provide such information or grant the Customer access to it.

(D). To the extent it is not possible to otherwise satisfy an audit obligation mandated by applicable law, only legally mandated entities (such as a governmental regulatory agency having oversight of the Customer's operations), the Customer or its mandated auditor may conduct an onsite visit of the facilities used to Process Customer Personal Data, during normal business hours and only in a manner that causes minimal disruption to DNAnexus' business, subject to coordinating the timing of such visit and in accordance with any audit procedures in the DPA Exhibit in order to reduce any risk to DNAnexus' other customers.

5.2 Each party will bear its own costs in respect to paragraphs (A) and (B) of Section 5.1 of this DPA. Any further assistance will be provided in accordance with Section 10.2 of this DPA. The Customer will be responsible for any fees charged by any auditor appointed by the Customer to execute any such audit.

6. RETURN OR DELETION OF CUSTOMER PERSONAL DATA

6.1 Upon termination or expiration of the Agreement, DNAnexus will either delete or return the Customer Personal data in its possession as set out in the respective DPA Exhibit within a reasonable timeframe, unless otherwise required by applicable law.

7. SUBPROCESSORS

7.1 The Customer authorizes DNAnexus to engage subcontractors to Process Customer Personal Data ("**Subprocessors**"). A list of the current Subprocessors is set out in the respective DPA Exhibit. DNAnexus will notify the Customer in advance of any changes to the Subprocessors as set out in the respective DPA Exhibit. Within 30 days after DNAnexus' notification of the intended change, the Customer can object to the addition of a Subprocessor on the basis that such addition would cause the Customer to violate applicable legal requirements. The Customer's objection shall be in writing and include the Customer's specific reasons for the objection and options to mitigate, if any. If the Customer does not object within such period, the respective Subprocessor may be commissioned to Process Customer Personal Data. DNAnexus shall impose the same data Processing obligations as set forth in this DPA on any approved Subprocessor prior to the Subprocessor Processing any Customer Personal Data.

7.2 If the Customer legitimately objects to the change of a Subprocessor and DNAnexus cannot reasonably accommodate the Customer's objection, DNAnexus will notify the Customer. The Customer or DNAnexus may terminate the affected Services by providing the other party with a written notice within one month of termination. DNAnexus will refund a prorated portion of any pre-paid charges for the period after such termination date. The Customer is responsible for removing its data prior to termination.

8. TRANSBORDER DATA PROCESSING

8.1 In connection with the performance of the Agreement, Customer authorizes DNAnexus to transfer Personal Data from the European Economic Area ("**EEA**") and Switzerland to the United States. DNAnexus has certified to the EU-U.S. and Swiss-U.S. Privacy Shield frameworks as administered by the U.S. Department of Commerce and commits to comply with its obligations for Customer Personal Data transferred under the Privacy Shield throughout the term of this DPA.

8.2 By agreeing to this DPA and if required by the applicable law, the Customer is entering into the EU Standard Contractual Clauses as referred to in the respective DPA Exhibit with the Subprocessors established in countries outside the European Economic Area that are not considered by the European Commission to provide adequate protection for personal data ("**Data Importers**"). Data Importers that are part of DNAnexus (e.g. DNAnexus affiliates) are "**DNAnexus Data Importers.**"

8.3 If the Customer notifies DNAnexus about another Controller and DNAnexus does not object within 30 days after the Customer's notification, the Customer agrees on behalf of such other Controller(s), or if unable to agree, will procure agreement of such Controller(s), to be additional data exporter(s) under the EU Standard Contractual Clauses concluded between DNAnexus Data Importers and the Customer. DNAnexus has procured that the DNAnexus Data Importers accept the agreement of such other Controllers. The Customer agrees and, if applicable, procures the agreement of other Controllers that the EU Standard Contractual Clauses, including any claims arising from them, are subject to the terms set forth in the Agreement, including the exclusions and limitations of liability. In case of conflict, the EU Standard Contractual Clauses shall prevail.

8.4 To the extent that DNAnexus or the Customer are relying on a specific statutory mechanism to legitimize international data transfers that is subsequently modified, revoked, or held in a court of competent jurisdiction to be invalid, the parties agree to cooperate in good faith to promptly terminate the transfer or to pursue a suitable alternate mechanism that can lawfully support the transfer of Customer Personal Data.

9. PERSONAL DATA BREACH

9.1 DNAnexus shall notify the Customer without undue delay after becoming aware of a Personal Data Breach with respect to the Customer Personal Data. DNAnexus will promptly investigate the Personal Data Breach if it occurred on the DNAnexus infrastructure. DNAnexus is responsible for and will assist the Customer as set out in Section 10 of this DPA.

10. ASSISTANCE

10.1 DNAnexus will assist the Customer by technical and organizational measures, insofar as possible, for the fulfillment of the Customer's obligation to comply with the rights of Data Subjects and in ensuring compliance with the Customer's obligations relating to the security of Processing, the notification of a Personal Data Breach, data protection impact assessments and consultation with competent data protection authorities (if required by the Data Protection Law), taking into account the information available to DNAnexus.

10.2 The Customer will make a written request for any assistance referred to in this DPA. DNAnexus will charge the Customer no more than a reasonable charge to perform such assistance or Additional Instructions, such charges to be set forth in a quote and agreed in writing by the parties, or as set forth in an applicable change control provision of the Agreement.