

**AMENDMENT 1 TO THE SPONSORED RESEARCH AGREEMENT**

This Amendment 1 to the Sponsored Research Agreement ("Amendment"), effective as of February 19, 2018 ("Effective Date"), is made and entered into by and between **Roche Sequencing Solutions, Inc.** with offices located at 4300 Hacienda Drive, Pleasanton, CA 94588 ("Sponsor"), and **Institute of Analytical Chemistry, CAS, v.v.i.** with offices located at Veveri 97, 602 00 Brno, Czech Republic ("Institution"). Each of Sponsor and Institution are referred to herein as a "Party" and together they are the "Parties".

WHEREAS, Sponsor and Institution entered into the Sponsored Research Agreement effective November 14, 2016 ("Agreement"), pursuant to which Sponsor and Institution have been and are continuing to conduct research related to enhanced nucleic acid sequencing sample preparation protocols;

WHEREAS, Sponsor and Institution desire to conduct additional research within the scope of the Research Project, as described in this Amendment;

WHEREAS, Sponsor is willing to provide additional funding to Institution as set out in this Amendment;

NOW THEREFORE, in consideration of the promises and undertakings set forth above and hereinafter, the Parties agree as follows:

1.1. The "Research Project" as defined in the Agreement will be deemed to have always been defined as follows.

"Research Project" means the research project described on Exhibit A and any other research conducted by Sponsor and Institution relating to the design, development, or manufacture of nucleic acid sequencing sample preparation protocols.

1.2. The research described in Exhibit A of this Amendment supplements the scope of the Research Project.

1.3. In consideration of Institution's performance of the additional tasks, deliverables, projects and milestones set forth in this Amendment and the rights granted by Institution to Sponsor under the Agreement, Sponsor shall provide compensation up to a total amount not to exceed one-hundred thousand US dollars (\$100,000 USD), subject to the remaining provisions of this paragraph. On completion of each phase of the Research Project described in Exhibit A of this Amendment (including without limitation the associated deliverables) in accordance with the specifications, schedule, and other requirements of the Agreement (as supplemented by this Amendment), Institution will invoice Sponsor for the amounts specified in Exhibit A of this Amendment. Payments by Sponsor will be due and payable within sixty (60) days after receipt by Sponsor of an undisputed invoice, subject to the services and deliverables conforming to the specifications, schedule, and other requirements of the Agreement (as supplemented by this Amendment). Institution's calculation of the actual costs that form the basis of such compensation is attached herein under Exhibit A. Sponsor may request Institution to perform additional work under the Research Project. If Institution agrees to perform work resulting in additional costs, the Parties shall discuss such costs, which if mutually agreed shall be amended and payable under the terms of this paragraph.

1.4. Section 7.1 of the Agreement is hereby deleted in its entirety and replaced with the following.

Term. The term of this Agreement shall commence on the Effective Date and continue in full force and effect until, unless terminated earlier (in accordance with Section 2.1, this Section 7 or Section 10.4), the later of: (a) the expiration of two (2) years from the Effective Date; or (b) the completion of the Research Project ("Term").

1.5. This Amendment may be executed by the parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts shall together constitute one and the same Amendment. The parties agree that execution of this Amendment by exchanging facsimile, PDF, or e-Signature (as defined below) signatures shall have the same legal force and effect as the exchange of original signatures. Pursuant to this Amendment, e-Signatures shall mean a signature that consists of one or more letters, characters, numbers or other symbols in digital form incorporated in, attached to or associated with the electronic document, that (a) is unique to the person making the signature; (b) the technology or process used to make the signature is under the sole control of the person making the signature; (c) the technology or process can be used to identify the person using the technology or process; and (d) the electronic signature can be linked with an electronic document in such a way that it can be used to determine whether the electronic document has been changed since the electronic signature was incorporated in, attached to or associated with the electronic document.

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