IMPORTANT-READ CAREFULLY. THIS IS A LICENSE AGREEMENT THAT YOU ARE REQUIRED TO ACCEPT BEFORE INSTALLING AND USING ILLUMINA, INC. SOFTWARE. CAREFULLY READ ALL THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT BEFORE PROCEEDING WITH THE DOWNLOADING AND/OR INSTALLATION OF THIS SOFTWARE. YOU ARE NOT PERMITTED TO DOWNLOAD AND/OR INSTALL THIS SOFTWARE UNTIL YOU HAVE AGREED TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT. BY ACCEPTING THIS LICENSE AGREEMENT YOU ALSO REPRESENT AND WARRANT THAT YOU ARE DULY AUTHORIZED TO ACCEPT THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT ON BEHALF OF YOUR EMPLOYER.

This End User License Agreement ("Agreement") is made and entered into by and between Illumina, Inc., a Delaware corporation, having offices at 5200 Illumina Way, San Diego, CA 92122 ("Illumina") and you as the end-user of the Software (hereinafter, “Licensee” or “you”). All computer programs, software, firmware, and associated media, printed materials and online and electronic documentation, including any updates or upgrades thereof (collectively, “Software”) provided to Licensee are for use solely by Licensee and the provisions herein shall apply with respect to such Software. By using the Software, you indicate your acceptance of the terms and conditions, at which point this Agreement will become a legally binding agreement between you and Illumina.

1. **License Grant.** Subject to the terms and conditions of this Agreement, Illumina grants to Licensee, under the following terms and conditions, a personal, non-exclusive, revocable, non-transferable, non-sublicensable license, for its internal, end-use purposes only, in the ordinary course of Licensee’s business to use the Software in executable object code form only, solely at the Licensee’s facility to, install and use the Software on a single computer accessible only by Licensee only (and not on any public network or server), where the single computer is owned, leased, or otherwise substantially controlled by Licensee, for the purpose of processing and analyzing data generated from an Illumina genetic sequencing instrument owned and operated solely by Licensee (the “Product”). In the case of Software provided by Illumina in non-compiled form, Illumina grants Licensee a personal, non-exclusive, non-sublicenseable, restricted right to compile, install and use one copy of the Software solely for processing and analyzing data generated from the Product. This license includes the right, subject to all applicable terms and conditions, to use the Software on Illumina’s BaseSpace Sequence Hub cloud-based genomics analysis and storage platform provided through https://basespace.illumina.com/home/index, as updated from time to time.

2. **License Restrictions.** The Software is licensed to Licensee, not sold. Except as expressly permitted in Section 1, Licensee may not make, have made, import, use, copy, reproduce, distribute, display, publish, sell, re-sell, lease, or sub-license the Software, in whole or in part, except as expressly provided for in this Agreement. Licensee may not modify, improve, translate, reverse engineer, decompile, disassemble, or
create derivative works of the Software or otherwise attempt to (a) defeat, avoid, by-pass, remove, deactivate, or otherwise circumvent any software protection mechanisms in the Software including, without limitation, any such mechanism used to restrict or control the functionality of the Software, or (b) derive the source code or the underlying ideas, algorithms, structure, or organization form of the Software. Licensee will not allow, at any time, including during and after the term of the license, the Software or any portions or copies thereof in any form to become available to any third parties. Licensee may use this Software solely with genomic data that is generated using the Product; Licensee may not use this Software with any data generated from other products or instruments. Licensee may not use the Software to perform any data analysis services for any third party.

3. **Ownership.** The Software is protected by United States and international intellectual property laws. All right, title and interest in and to the Software (including associated intellectual property rights) are and will remain vested in Illumina or Illumina’s affiliated companies or licensors. Licensee acknowledges that no rights, license or interest to any Illumina trademarks are granted hereunder. Licensee acknowledges that unauthorized reproduction or distribution of this Software, or any portion of it, may result in severe civil and criminal penalties.

4. **Upgrades/Updates.** Illumina may, at its sole discretion, provide updates or upgrades to the Software. In that case, Licensee shall have the same rights and obligations under such updates or upgrades as it has for the versions of the Software initially provided to Licensee hereunder. Licensee recognizes that Illumina is not obligated to provide any upgrades or updates to, or support for, the Software.

5. **Data Integrity/Loss.** You are responsible for the integrity and availability, including preventing the loss of data that you generate, use, analyze, manage, or store in connection with or through use of this Software, including without limitation, investigating and implementing industry appropriate policies and procedures regarding the provision of access to your data, monitoring access and use of your data, conducting routine backups and archiving of your data, and ensuring the adequacy of anti-virus software. Accordingly, you agree that Illumina is not responsible for any inability to access, loss or corruption of data as a result of your use of this Software and Illumina has no liability to you in connection with such inability to access, loss or corruption of data.

6. **Term of License.** This Agreement shall be in effect from the time Licensee expressly accepts the terms and conditions of this license, or otherwise installs the Software, thereby accepting the terms and conditions contained herein, and shall remain in effect until terminated. This license will otherwise terminate upon the conditions set forth in this Agreement or if Licensee fails to comply with any term or condition of this Agreement including failure to pay any applicable license fee. Licensee agrees upon termination of this Agreement for any reason to immediately discontinue use of and un-install the Software and destroy all copies of the Software in its possession and/or under its control, and return or destroy, at Illumina’s option, any compact disks, floppy disks or other media provided by Illumina storing the Software thereon (together with any authorized copies thereof), as well as any documentation associated therewith.

7. **No Warranty.** THE SOFTWARE AND ANY RESULTS GENERATED BY YOUR USE OF THE SOFTWARE ARE PROVIDED "AS IS" WITHOUT ANY WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED. ILLUMINA EXPRESSLY DISCLAIMS ALL WARRANTIES AND CONDITIONS REGARDING THE SOFTWARE AND RESULTS GENERATED BY THE SOFTWARE, INCLUDING WITHOUT LIMITATION, TO THE FULLEST EXTENT ALLOWABLE BY LAW, ALL OTHER EXPRESS OR IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY QUALITY, NON-INFRINGEMENT, AND FITNESS FOR A PARTICULAR PURPOSE, AND THOSE ARISING BY STATUTE OR OTHERWISE IN LAW OR FROM A COURSE OF DEALING OR USAGE OF TRADE. ILLUMINA DOES NOT
WARRANT THAT THE FUNCTIONS CONTAINED IN THE SOFTWARE WILL MEET LICENSEE’S REQUIREMENTS, OR THAT THE OPERATION OF THE SOFTWARE WILL BE ERROR FREE OR UNINTERRUPTED.

8. **Limitation of Liability.** THE AGGREGATE LIABILITY OF ILLUMINA, IF ANY, ARISING OUT OF OR IN ANY WAY RELATED TO THIS AGREEMENT OR THE SUBJECT MATTER HEREOF, IS LIMITED TO DIRECT MONEY DAMAGES NOT TO EXCEED $1,000 USD. IN NO EVENT SHALL ILLUMINA BE LIABLE UNDER ANY THEORY OF CONTRACT, TORT, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY INDIRECT, CONSEQUENTIAL OR INCIDENTAL DAMAGES, EVEN IF ILLUMINA HAS BEEN ADVISED OF THE POSSIBILITY THEREOF INCLUDING, WITHOUT LIMITATION, LOST PROFITS, LOST DATA, INTERRUPTION OF BUSINESS, LOST BUSINESS REVENUE, OTHER ECONOMIC LOSS OR ANY LOSS OF RECORDED DATA ARISING OUT OF THE USE OF OR INABILITY TO USE THE SOFTWARE.

9. **Survival.** The limitations of liability and ownership rights of Illumina contained herein and Licensee’s obligations following termination of this Agreement shall survive the termination of this Agreement for any reason.

10. **Research Use Only.** The Software is labeled with a For Research Use Only or similar labeling statement and is not for use in diagnostic procedures. You acknowledge that (i) the Software has not been approved, cleared, or licensed by the United States Food and Drug Administration or any other regulatory entity whether foreign or domestic for any specific intended use, whether research, commercial, diagnostic, or otherwise, and (ii) you must ensure you have any regulatory approvals that are necessary for your intended uses of the Software. You further agree to comply with all applicable laws and regulations when using and maintaining the Product.

11. **General.** Licensee may not sublicense, assign, share, pledge, rent or transfer any of its rights under this Agreement in relation to the Software or any portion thereof including documentation. Illumina reserves the right to change this Agreement at any time. When Illumina makes any changes, Illumina will provide the updated Agreement, or a link to it, on Illumina’s website (www.illumina.com) and such updated Agreement shall become effective immediately. Licensee’s continued access to or use of the Software represents Licensee’s agreement to any revised Agreement. If one or more provisions of this Agreement are found to be invalid or unenforceable, this Agreement shall not be rendered inoperative but the remaining provisions shall continue in full force and effect. This Agreement constitutes the entire agreement between the parties with respect to the subject matter of this Agreement and merges all prior communications except that a “hard-copy” form of licensing agreement relating to the Software previously agreed to in writing by Illumina and Licensee shall supersede and govern in the event of any conflicting provisions.

12. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the state of California, USA, without regard to its conflicts of laws principles, and independent of where a suit or action hereunder may be filed.

13. **Contact.** Any questions regarding legal rights, duties, obligations, or restrictions associated with the software hereunder should be directed to Illumina, Inc., 5200 Illumina Way, San Diego, CA 92122, Attention: Legal Department, Phone: (858) 202-4500, Fax: (858) 202-4599, web site: www.illumina.com <http://www.illumina.com>

This Software may contain third party software for which Illumina is required to provide attribution (“Third Party Programs”). Some of the Third Party Programs are available under open source or free software
licenses. The License Agreement accompanying the Software does not alter any rights or obligations you may have under those source or free software licenses. This document or appendix contains proprietary notices for the Third Party Programs and the licenses for the Third Party Programs, where applicable. The following copyright statements and licenses apply to various open source software components (or portions thereof) that are distributed with the Licensed Software.

<table>
<thead>
<tr>
<th>Component</th>
<th>License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boost v1.54</td>
<td>Boost Software License - Version 1.0 - August 17th, 2003</td>
</tr>
<tr>
<td></td>
<td>Permission is hereby granted, free of charge, to any person or organization obtaining a copy of the software and accompanying documentation covered by this license (the &quot;Software&quot;) to use, reproduce, display, distribute, execute, and transmit the Software, and to prepare derivative works of the Software, and to permit third-parties to whom the Software is furnished to do so, all subject to the following:</td>
</tr>
<tr>
<td></td>
<td>The copyright notices in the Software and this entire statement, including the above license grant, this restriction and the following disclaimer, must be included in all copies of the Software, in whole or in part, and all derivative works of the Software, unless such copies or derivative works are solely in the form of machine-executable object code generated by a source language processor.</td>
</tr>
<tr>
<td></td>
<td>THE SOFTWARE IS PROVIDED &quot;AS IS&quot;, WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE AND NON-INFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS OR ANYONE DISTRIBUTING THE SOFTWARE BE LIABLE FOR ANY DAMAGES OR OTHER LIABILITY, WHETHER IN CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.</td>
</tr>
<tr>
<td>CMake v.2.8.12</td>
<td>CMake - Cross Platform Makefile Generator Copyright 2000-2012 Kitware, Inc., Insight Software Consortium. All rights reserved.</td>
</tr>
<tr>
<td></td>
<td>Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:</td>
</tr>
<tr>
<td></td>
<td>* Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.</td>
</tr>
<tr>
<td></td>
<td>* Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.</td>
</tr>
</tbody>
</table>
* Neither the names of Kitware, Inc., the Insight Software Consortium, nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTOR "AS IS" AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE COPYRIGHT HOLDER OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

Libxml2 v2.7.8

Except where otherwise noted in the source code (e.g. the files hash.c, list.c and the trio files, which are covered by a similar license but with different Copyright notices) all the files are:

Copyright (C) 1998-2003 Daniel Veillard. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE DANIEL VEILLARD BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of Daniel Veillard shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from him.

Libxslt v1.1.26

License for libxslt except libexslt

===============================================================================

Copyright (C) 2001-2002 Daniel Veillard. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the
Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE DANIEL VEILLARD BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of Daniel Veillard shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from him.

----------------------------------------------------------------------

License for libexslt
----------------------------------------------------------------------

Copyright (C) 2001-2002 Thomas Broyer, Charlie Bozeman and Daniel Veillard. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of the authors shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from him.
END OF END-USER SOFTWARE LICENSE AGREEMENT