

**Supplemental Table 3.** Bioinformatic tools and software versions used in data analysis pipeline

Package/Software	Version	Availability
Cytobank	7.0	<a href="https://www.cytobank.org">https://www.cytobank.org</a>
R	3.6.3	<a href="https://www.r-project.org">https://www.r-project.org</a>
Python	3.8.2	<a href="https://www.python.org/downloads/">https://www.python.org/downloads/</a>
UMAP	0.5.1	<a href="https://pypi.org/project/umap-learn/">https://pypi.org/project/umap-learn/</a>
Sci-kit Learn	0.24.0	<a href="https://scikit-learn.org/stable/">https://scikit-learn.org/stable/</a>
Diffcyt	3.12	<a href="https://bioconductor.org/packages/release/bioc/html/diffcyt.html">https://bioconductor.org/packages/release/bioc/html/diffcyt.html</a>
PARC (phenotyping by accelerated refined community-partitioning)	0.33	<a href="https://github.com/ShobiStassen/PARC">https://github.com/ShobiStassen/PARC</a>
ggplot	3.3.2	<a href="https://ggplot2.tidyverse.org/reference/ggplot.html">https://ggplot2.tidyverse.org/reference/ggplot.html</a>
FlowCore	3.12	<a href="http://www.bioconductor.org/packages/release/bioc/html/flowCore.html">http://www.bioconductor.org/packages/release/bioc/html/flowCore.html</a>

All packages and tools can be accessed using the links available in addition to the specific version of each tool used.