

Supplementary information

**Three-dimensional imaging mass
cytometry for highly multiplexed
molecular and cellular mapping of tissues
and the tumor microenvironment**

In the format provided by the
authors and unedited

Supplementary information

**Three-dimensional imaging mass
cytometry for highly multiplexed
molecular and cellular mapping of tissues
and the tumor microenvironment**

In the format provided by the
authors and unedited

Ali HR^{1,2}, Al Sa'd M³, Alon S⁴, Aparicio S^{5,6}, Battistoni G¹, Balasubramanian S^{1,7}, Becker R⁸, Bodenmiller B², Boyden ES⁴, Bressan D¹, Bruna A⁹, Burger Marcel², Caldas C⁹, Callari M¹, Cannell IG¹, Casbolt H¹, Chornay N³, Cui Y⁴, Dariush A³, Dinh K¹⁰, Emenari A⁴, Eyal-Lubling Y⁹, Fan J¹¹, Fatemi A¹, Fisher E¹, González-Solares EA³, González-Fernández C³, Goodwin D⁴, Greenwood W¹, Grimaldi F⁸, Hannon GJ¹, Harris O⁸, Harris S⁸, Jauset C¹, Joyce JA¹², Karagiannis ED⁴, Kovačević T¹, Kuett L², Kunes R¹⁰, Küpcü Yoldaş A³, Lai D^{5,6}, Laks E^{5,6}, Lee H¹¹, Lee M^{1,7}, Lerda G¹, Li Y⁵, McPherson A^{5,6,13}, Millar N³, Mulvey CM¹, Nugent F¹, O'Flanagan CH⁵, Paez-Ribes M¹, Pearsall I¹, Qosaj F¹, Roth AJ^{5,6,14}, Rueda OM⁹, Ruiz T⁵, Sawicka K¹, Sepúlveda LA¹¹, Shah SP^{5,6,13}, Shea A⁹, Sinha A⁴, Smith A⁵, Tavaré S^{1,10,15}, Tietscher S², Vázquez-García I¹³, Vogl SL⁸, Walton NA³, Wassie AT⁴, Watson SS¹², Weselak J⁸, Wild SA¹, Williams E¹, Windhager J², Xia C¹¹, Zheng P¹¹, Zhuang X¹¹.

¹ Cancer Research UK Cambridge Institute, Li Ka Shing Centre, University of Cambridge, Cambridge CB2 0RE, UK.

² Institute of Molecular Life Sciences, University of Zurich, Zurich 8054, Switzerland.

³ Institute of Astronomy, University of Cambridge, Madingley Road, Cambridge, CB3 0HA, UK.

⁴ McGovern Institute, Departments of Biological Engineering and Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, Massachusetts, USA.

⁵ Department of Molecular Oncology, BC Cancer, part of the Provincial Health Services Authority, Vancouver, BC, Canada.

⁶ Department of Pathology and Laboratory Medicine, University of British Columbia, Vancouver, BC, Canada

⁷ Department of Chemistry, University of Cambridge, Lensfield Road, Cambridge, CB2 1EW, UK.

⁸ Súil Interactive Ltd, Dame Lane, Dublin, UK.

⁹ Department of Oncology and Cancer Research UK Cambridge Institute, University of Cambridge, Cambridge, CB2 0RE, UK.

¹⁰ Herbert and Florence Irving Institute for Cancer Dynamics, Columbia University, New York, NY, USA.

¹¹ Howard Hughes Medical Institute, Department of Physics and of Chemistry and Chemical Biology, Harvard University, Cambridge, MA 02138, USA.

¹² Department of Oncology and Ludwig Institute for Cancer Research, University of Lausanne, Lausanne, Switzerland.

¹³ Computational Oncology, Department of Epidemiology and Biostatistics, Memorial Sloan Kettering Cancer Center, New York, USA.

¹⁴ Department of Computer Science, University of British Columbia, Vancouver, BC, Canada.

¹⁵ New York Genome Center, New York, NY, USA.