Silicon Nitride as a Versatile Growth Substrate for Microspectroscopic Imaging and Mapping of Individual Cells

Elizabeth A. Carter^a, Benjamin S. Rayner^{b1}, Andrew I. McLeod^a, Lindsay E. Wu^{a1}, Craig P. Marshall^{a2}, Aviva Levina^a, Jade B. Aitken^a, Paul K. Witting^b, Barry Lai^c, Zhonghou Cai^c, Stefan Vogt^c, Yao-Chang Lee^d, Ching-Iue Chen^d, Mark J. Tobin^e, Hugh H. Harris^{a3}, Peter A. Lay^{a*}

^a School of Chemistry, The University of Sydney, NSW 2006 Australia, p.lay@chem.usyd.edu.au

^b The ANZAC Research Institute, Concord Repatriation Hospital, Hospital Rd, Concord, NSW

2139 Australia.

^c Advanced Photon Source, Argonne National Laboratories, Argonne, IL USA.

^d National Synchrotron Radiation Research Centre, No. 101 Hsin-Ann Road, Hsinchu, 30076,

Taiwan.

^e Australian Synchrotron, 800 Blackburn Road, Clayton, Vic, 3168, Australia

Supplementary Information

¹ Current Address: Diabetes and Obesity Program, Garvan Institute of Medical Research, 384 Victoria St. Darlinghurst, NSW 2010 Australia

² Current Address: Department of Geology, University of Kansas, 1475 Jayhawk Blvd, Lawrence, KS, USA

³ Current Address: School of Chemistry and Physics, The University of Adelaide, SA 5005, Australia.

Optical Images of Differentiated 3T3-L1 cells (passage 3) on a $\rm Si_3N_4$ membrane and the same well containing the membrane



Figure S1. Live cells on a SiN slide, 40x objective.



Figure S2. Live cells in the well, 40x objective.