

Experimental Quantification of Interactions Between Drug Delivery Systems and Cells *In Vitro*: A Guide for Preclinical Nanomedicine Evaluation

Paula M. Cevaál¹, Michael Roche², Sharon R. Lewin^{2,3,4}, Frank Caruso⁵, Matthew Faria⁶

¹Department of Microbiology and Immunology, The University of Melbourne at the Peter Doherty Institute for Infection and Immunity ²Department of Infectious Diseases, The University of Melbourne at the Peter Doherty Institute for Infection and Immunity ³Victorian Infectious Diseases Service, Royal Melbourne Hospital at the Peter Doherty Institute for Infection and Immunity ⁴Department of Infectious Diseases, Alfred Hospital and Monash University ⁵Department of Chemical Engineering, The University of Melbourne ⁶Department of Biomedical Engineering, The University of Melbourne

Corresponding Author

Matthew Faria

matthew.faria@unimelb.edu.au

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Materials

Name	Company	Catalog Number	Comments
Alexa Fluor 647 C2 Maleimide	Invitrogen	A20347	pH-stable dye used to label 150 nm, 235 nm, or 633 nm PMA ₅ H carriers; example of good dye to use in cell-carrier association studies
Apogee A50 Microflow	Apogee		Sensitive flow cytometer capable of detecting small carriers for counting
CytoFLEX S Flow Cytometer	Beckman Coulter		Sensitive flow cytometer capable of detecting small carriers for counting and read out for final cell-barrier experiments
FCS Express	De Novo Software		Software used to analyze flow cytometry data, i.e., perform gating and derive median fluorescence intensity values of populations of choice. Alternatives include FlowJo, OMIQ, Python
Infinite 200 PRO	Tecan Lifesciences		Standard microplate reader instrument used for bulk fluorescence measurements of carriers in solution
LSRFortessa Cell Analyzer	BD Biosciences		Less sensitive flow cytometer, but one more generally available to researchers. Can be used to read out final cell-carrier experiment
NanoSight NS300	Malvern Panalytical		Instrument used for Nanoparticle Tracking Analysis
Prism 8	GraphPad		Software used to graph and calculate standard curves. Alternatives include Microsoft Excel, Origin, Minitab, Python amongst many others
Quantum MESF kits Alexa Fluor 647	Bangs Laboratories	647	Absolute quantitation beads for flow cytometry. Used to convert

		fluorescence intensities measured in bulk on a microplate reader to fluorescence intensities measured on a flow cytometer using the MESF standard
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