Evaluation of electric cell-substrate impedance sensing for the detection of nanomaterial toxicity

Erin McAuley
Biology Department,
Rensselaer Polytechnic Institute,
43 Eagle Street, Troy, NY 12180, USA
E-mail: mcaule@rpi.edu

Bhavana Mohanraj and Theresa Phamduy
Biomedical Engineering Department,
Rensselaer Polytechnic Institute,
83 14th Street, Troy, NY 12180, USA
E-mail: mohanb@rpi.edu
E-mail: phamdt@rpi.edu

George E. Plopper
Department of Biology,
Rensselaer Polytechnic Institute,
CBIS 2115, 110 8th Street, Troy, NY 12180, USA
E-mail: ploppg@rpi.edu

David T. Corr
Biomedical Engineering Department,
Rensselaer Polytechnic Institute,
JEC 7049 7th Fl., 110 8th Street, Troy, NY 12180, USA
E-mail: corrd@rpi.edu

Douglas B. Chrisey*
Materials Science and Engineering Department,
Rensselaer Polytechnic Institute,
MRC 1st Fl., 110 8th Street, Troy, NY 12180, USA
E-mail: chrisd@rpi.edu
*Corresponding author

Abstract: Electric cell-substrate impedance sensing (ECIS) is an in situ and real-time monitoring system used to detect toxic agents by monitoring changes in impedance of a confluent cell monolayer. When toxic agents are introduced to cells, they can cause a change in the cell barrier function, a direct measure of the resistance to current flow caused by tight junction formation between cells. This exposure results in an immediate, quantitative change in the measured

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