

Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

Effect of Carbon Nanotubes on Mammalian Cells MICHELLE CHEN, ASMA AHMED, MELANIE BLACK, NICOLE KAWAMOTO, JESSICA LUCAS, ARMIE PAGALA, TRAM PHAM, SARA STANKIEWICZ, Simmons College, HOWARD CHEN, Massachusetts General Hospital, Harvard Medical School, SIMMONS COLLEGE COLLABORATION, MASSACHUSETTS GENERAL HOSPITAL, HARVARD MEDICAL SCHOOL COLLABORATION — Carbon Nanotubes possess extraordinary electrical, mechanical, and thermal properties. Research on applying the carbon nanotubes for ultrasensitive detection, disease diagnosis, and drug delivery is rapidly developing. While the fundamental and technological findings on carbon nanotubes show great promise, it is extremely important to investigate the effect of the carbon nanotubes on human health. In our experiments, we introduce purified carbon nanotubes in suspension to ovary cells cultured from Hamsters. These cells are chosen since they show robust morphological changes associated with cytotoxicity that can easily be observed under a light microscope. We will discuss the toxicity of carbon nanotubes by characterizing the cell morphology and viability as a function of time and the concentration of carbon nanotube suspension.

Michelle Chen

Date submitted: 20 Nov 2009

Electronic form version 1.4