Biography
Paula Flaherty is a Senior Research Scientist and Project Manager at BD Biosciences since 1984. Her focus is on developing strategy and products focused on the modulation of in vitro cell behavior using extracellular matrix, media and growth factors.

Prior to joining BD, Paula was part of a team of scientists studying retinal degeneration at the Berman-Gund Laboratory, Harvard Medical School in Boston, MA. She received her Bachelor’s degree in Microbiology from the State University of New York and is an In-Vitro Cell Biology Fellow, W. Alton Jones Cell Science Center, Lake Placid, NY

Abstract
Many advances in the understanding of biological systems have been dependent on the study of cell behavior and functionality. An essential tool in this research is in vitro cell culture.

Many variables must be considered when developing a physiological environment for optimal cell growth and differentiation in the laboratory. Examples of these variables include the cell source, cell isolation technique, composition of the growth environment (e.g., extracellular matrix proteins, soluble growth factors), and cell age. Basic laboratory practices can be overlooked as a source of discrepancy in experimental data. However, the application of fastidious and reproducible techniques can reduce cell culture as a source of data variation. As specialized techniques have been developed to modulate cells and tissues in vitro, the acquisition of reproducible data has become paramount.

In this presentation, we will identify and discuss basic principles of in vitro mammalian cell culture that influence the quality of experimental results.