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Searching for cervical cancer biomarkers

Eliane Campos Coimbra
Federal University of Pernambuco, Brazil

This lecture will address topics related to the search for potential biomarkers for cervical cancer. The first part of this lecture will present the prevalence of cervical cancer on a worldwide scale; the interplay between high-risk HPV and host cell molecules in cervical cancer development; and the need for robust biomarkers. In the second part, the topics will focus on critical parameters to achieve reliable qPCR results in obtaining mRNA and miRNA markers for cervical carcinogenesis; and will include discussions on: The careful evaluation of expression stability of candidate reference genes; the importance of including cervical premalignant lesions in gene stability analyzes; the use of individual samples x pool of samples; the use of multiple reference genes; the use of a single reference gene. Therefore, attendees of this lecture will be familiarized with the needs for rigorous validation of reference genes in qPCR assays to identify reliable biomarkers for cervical carcinogenesis.

Biography

Eliane Campos Coimbra is a Biologist with Master in Genetics (2007) and PhD in Therapeutic Innovation (2012) at Federal University of Pernambuco. Currently she is Postdoctoral research fellow of the Laboratory of Molecular Studies and Experimental Therapy (LEMTE) at Department of Genetics, Federal University of Pernambuco. Her research focuses on HPV infection and cervical cancer, including the development of vaccinal strategies and evaluation of mRNA and microRNA expression changes, to understanding the molecular basis of cervical carcinogenesis and to identify potential biomarkers.

elianecoimbra@gmail.com