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# SPEAKER Prof. Christopher TURNER

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# MULTIPLE ROLES FOR THE FOCAL ADHESION ADAPTOR PROTEIN, HIC-5 IN BREAST TUMOR PROGRESSION

#### ABSTRACT

The migration of cancer cells away from the primary tumor mass and the formation of subsequent metastases to distant organs is associated with 90% of cancer mortalities. Importantly, tumor cell behavior, including migration and invasion is strongly influenced the topography, composition and stiffness of the surrounding stromal extracellular matrix environment. Tumor cells interact with the stromal matrix via integrin-rich cell-ECM adhesions sites known as focal adhesions. These structures serves as bidirectional signaling centers allowing cells to communicate with and respond to changes in their extracellular environment. My lab is interested in the role of the Paxillin family of molecular scaffold proteins in cell adhesion signaling. In this lecture I will discuss the multiple roles of Hic-5 (TGF-b11), a member of the Paxillin family in breast cancer progression, demonstrating both a key role for this protein in directly regulating the mode of tumor cell migration and invasion as well how its expression in cancer associated fibroblasts impacts the deposition and organization of the stromal matrix to further promote tumor malignancy.