

Colloquium

Cell competition between normal and transformed epithelial cells

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At the initial step of carcinogenesis, transformation occurs in a single cell within an epithelial sheet. However, it remains elusive what happens at the boundary between normal and the newly emerging transformed cells. Using newly established cell culture and mouse model systems, we have shown that various phenomena can occur at the interface between normal and transformed epithelial cells. For example, when Ras-transformed cells are surrounded by normal epithelial cells, the transformed cells are often eliminated from the apical surface of the epithelial monolayer. This phenomenon is not observed when transformed cells alone are present, suggesting that the presence of surrounding normal cells affects the signalling pathways and fate of transformed cells. Furthermore, we have demonstrated that normal epithelial cells can recognise and actively eliminate various types of transformed cells and named this process EDAC (Epithelial Defense Against Cancer).

In this talk, I will present our recent findings on cell competition and discuss how this study can lead to the establishment of novel types of cancer preventive treatment.

Wednesday, Feb 14th 2024

16:00 Hrs (Tea / Coffee 15:45 Hrs)

Auditorium, TIFR-H