



CDB SEMINAR

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Monday, March 6, 2017

16:30~17:30 A7F Seminar Room (Updated:Feb.14)

Epithelial plasticity in health and disease

Summary

The reactivation of developmental EMT-like programs in adult cells leads to several pathologies including tumor progression and organ degeneration. While the epithelial and mesenchymal cells are usually considered as extreme phenotypes, partial EMT states also exist. Under those circumstances cells depict an intermediate phenotype -expressing both epithelial and mesenchymal markers- from which they can reverse to a more epithelial state or move towards a more mesenchymal phenotype. Hybrid transitory states can favor coordinated cell migration or wound healing and it can also enable the formation of clusters of migratory cancer cells with increased tumor initiating potential. In contrast to the hybrid transitory state, there are particular contexts in which a partial EMT phenotype can be defined as a final state, as we have recently shown to occur during renal fibrosis. In addition, as EMT can be induced by different factors, there are different EMT types which endow cells with different phenotypes. I will present data to indicate that a gene regulatory network operates to govern the EMT-type, and how this can affect organ regeneration and metastatic colonization.

Key words: EMT, cell plasticity, organ degeneration, metastatic colonization

Host:

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