

Einladung zum Physikalischen Kolloquium

**Montag, 20.06.2011
16:15 Uhr in O25/H13**

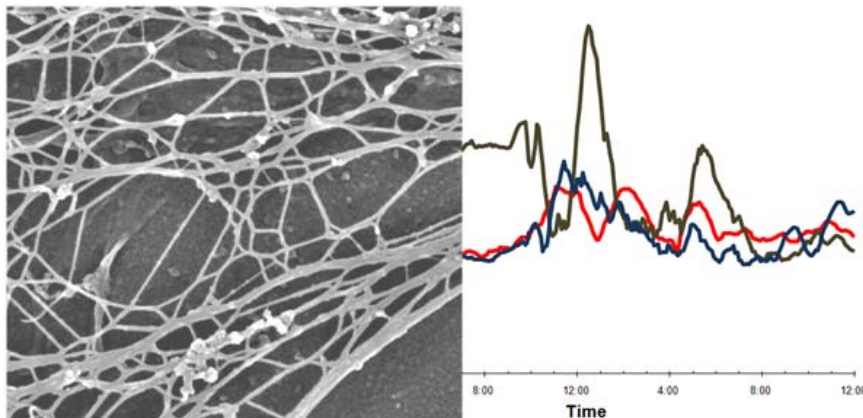
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Heterogeneity - friend or foe in life?

Many processes controlling the behavior of cells involve molecules in a quantity that is small on the scale of biology. Thus, intracellular reactions between these compounds are observable as discrete events at random points in time. The resulting fluctuations of product concentrations can reach the magnitude of the state variable defining the function of individual cells. Moreover, the inaccuracy of enzymes may lead to the random appearance of new products which also has an impact on cell behavior. These phenomena give rise to the temporal and spatial heterogeneity that is an essential feature of all biological systems.

Heterogeneity provides both individual organisms and populations with robustness and adaptability that ensures survival in changing environments. However, heterogeneity is a 'double-edged sword' and some diseases are known to be associated with a substantial degree of structural or temporal heterogeneity of tissues and organs. This talk will discuss methods to study heterogeneity in cell biology and will present applications in medicine.



Ab 15.45 Uhr Kaffee, Tee und Kekse vor dem Hörsaal H13

**Organisation: Prof. Marti, Tel.: 23011
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