

Seminar

Roles of axonal actin in regeneration and behaviour

Sandhya P Koushika

TIFR, Mumbai

Actin in neurons has been shown to be present in complex braided structures as part of the membrane periodic cytoskeleton. Actin also shows dynamics as observed by the presence of hotspots and trails. Two independent lines of research in our lab using the *C. elegans* model reveal the roles that dynamic actin play in vivo. Actin trails are essential for regeneration where their dynamics is initiated after injury through signalling via DLK-1 and CEBP-1. The presence of actin hotspots and trails are both dependent on the presence of mitochondria along axons. Such actin-dynamics appear essential for touch responsiveness.

Thursday, Aug 25th 2022

04:00 PM (Tea/Coffee at 3:45 PM)

Auditorium, TIFR-H