

Seminar

**Natural and engineered biological sensors:
visualizing cellular dynamics and discoveries in
natural light sensing**

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Ours is a multi-disciplinary program on devising new measurements for biology across scales and exploring new ways in which 'light' itself can be sensed/processed in nature. I will share how fluorescent biosensors for protein activity in live cells can provide new insights into how cellular signaling is coordinated over space and time. For mapping cell states, we have also developed new environment-sensitive fluorescent probes for mitochondrial function and dynamics. I will also showcase our recent ground-breaking discoveries on how 'simple' organisms can sense and respond to light stimuli in unusual ways, including completely independent of eyes. Our work has radical implications in eye-brain regeneration, eye-evolution, biomimetic devices and novel optogenetics.

Monday, Jan 13th 2020

4:00 PM (Tea/Coffee at 3:30 PM)

Seminar Hall, TIFR-H