Amgen Seminar Series in Chemical Engineering

in

Cherry Auditorium, Kirk Hall, 1 PM

Presents on October 29, 2015

Biophysical Studies of Transmembrane Helix Dimerization

By

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My research lab works towards the understanding of the physical and chemical principles governing the interaction of membrane proteins. Of particular interest is the role of the transmembrane domains in these interactions. The focus, thus far, has been on fibroblast growth factor receptors and mucin proteins and the formation of dimers. These membrane proteins are important because they regulate many vital cellular processes. Furthermore, diseases may arise when homo- and heterodimerization are not controlled properly due to mutations or overexpression of the membrane protein. Thus, these studies may provide useful information towards the development of better therapeutics. I will present two different methodologies to measure dimerization between transmembrane helices, and how they can be used to obtain thermodynamic and structural information.

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