

Plenary talks (PV)

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**Plenary Talk** PV XVIII Thu 8:30 HSZ 01  
**Pushing the Envelope in Biological Imaging** — ●ERIC BETZIG  
— Janelia Farm Research Campus, Ashburn, VA 20147 USA  
Optical microscopy has been instrumental in studies of the structure and function of biological systems for centuries. However, many ques-

tions at the forefront of molecular, cellular, and neurobiology remain beyond its current capabilities. Here I will summarize our efforts to extend these capabilities as follows: fluorescence imaging beyond the diffraction limit with photoactivated localization microscopy, deep tissue imaging with two-photon adaptive optics, and high speed volumetric cellular imaging with Bessel beam plane illumination microscopy.