***CALIFORNIA SECTION, ACS***

***March 2018 Section Meeting***

*Thursday, September 13, 2018*

*Topic: “***Cryo-EM to visualize the molecular machinery involved in regulation of gene expression”**

*Speaker:*

Dr. Eva Nogales, UC Berkeley

***Time:*** 6-6:50 pm social with light refreshments; Talk: 7-8:15pm

***Cost:*** $10.00 per person ($5.00 for students). *No cost for presentation only. (Please arrive by 6:50 if attending the talk only)*

***Place****:* USDA, 800 Buchanan Street, Albany CA.

***Reservations:***  Please contact the CalACS office by email office@calacs.org or 510-351-9922 by Monday, September 10, 2018. You may prepay by mailing your check to Cal. Section ACS at 2950 Merced St. #225, San Leandro CA 94577 or with PayPal using our email address office@calacs.org. You may also pay at the door with cash or check (credit/debit not accepted at the door).

***Abstract:***

Assemblies of biological macromolecules (proteins, DNA, RNA) are the functional units of cells and ultimate the whole organism. Visualizing these macromolecules, in different functional states, provides unique information on how they work and how they fail in the diseased state, and therefore can guide us in the design and improvement of therapies. But their extremely small size makes visualization of biological molecules challenging and requires of highly specialized instruments and computational tools. Technological developments in the field of electron microscopy are now allowing the fast turn around of structural information on critical cellular components. I will talk about what we have learned through the visualization, at atomic resolution, using electron microscopy, of critical protein complexes essential for the regulation of gene expression in eukaryotic organisms.

***Brief biography:***

Eva Nogales received her bachelor’s degree in physics from the Universidad Autónoma de Madrid in Spain. She did her graduate work at the Synchrotron Radiation Source and earned her doctorate in biophysics from the University of Keele in England. She came to the United States for postdoctoral work at the Lawrence Berkeley National Laboratory in 1993 and she worked with Kenneth H. Downing on the structure determination of tubulin by electron crystallography. She joined the University of California, Berkeley faculty in 1998 and is a Howard Hughes Medical Institute Investigator since 2000. Nogales is a member of the National Academy of Sciences and the American Academy of Arts & Sciences.