Friday, April 28, 2017
ORIGIN AND EVOLUTION OF LIFE: PREBIOTIC CHEMISTRY: FROM MOLECULES TO CELLS
10:15 a.m. Palo Verde

Chairs: **Donald Burke**
Irena Mamajanov

10:15 a.m. Guttenberg N. Virgo N. Packard N. *
The 'Selection First" Path to Life **[#3758]**
We demonstrate using a simple model that even in the absence of replication, natural selection can amplify functional sets of molecules from an initial "mess.".

10:30 a.m. Goldford J. E. * Hartman H. Smith T. F. Segre D.
Network-Level Fossil of a Phosphate-Free Biosphere **[#3521]**
A cryptic phosphate-free network hidden within global metabolism may portray an ancient biochemistry prior to the incorporation of phosphate.

10:45 a.m. Burke D. *
Overview

11:00 a.m. Cantine M. D. * Fournier G. P.
Environmental Adaptation from the Origin of Life to the last Universal Common Ancestor **[#3046]**
We discuss evolutionary innovations between life's origin and the Last Universal Common Ancestor (LUCA) through the lens of environmental adaptation.