



Origins of Life

NAI and SMBE Satellite Workshop and PCTS Program

21-24 January 2013

The last few decades have witnessed the burgeoning of many highly productive lines of investigation into abiogenesis and the early emergence of biological complexity. Planetary sciences and geochemistry have produced a short-list of well-studied settings where prebiotic chemistry may have led to the transition from non-living to living matter. Major advances in abiotic syntheses of important biomolecules have resulted in an improved understanding of the relative availabilities of proto-biomolecules. The continuing growth of bioinformatics databases has given computational biologists an unprecedented ability to reconstruct the properties of early organisms and ancient evolutionary histories. Synthetic biology now allows investigators to examine the boundaries of life's genetic systems and minimal life in the laboratory. In general, the advance of astrobiology has expanded our understanding of habitability and life as cosmological phenomena. This workshop will integrate these themes, foster new local, national and international collaborations, and actively encourage scientists from within and outside the Princeton community to pursue studies of life's origins. The workshop program will bring together researchers in these disparate subjects and subfields to address the questions of life's origins in the astronomical, chemical, genetic, evolutionary, and information-theoretic contexts.

REQUIRED REGISTRATION and additional information available at

<http://pcts.princeton.edu/pcts/>

Program Organizers: Laura Landweber (Ecology & Evolutionary Biology); Aaron Goldman (Ecology & Evolutionary Biology); Adam Burrows (Astrophysical Sciences and PCTS); Chris Chyba (Astrophysical Sciences and the Woodrow Wilson School); Ed Turner (Astrophysical Sciences); Jeremy Kasdin (MAE); Tullis Onstott (Geosciences); Michael Hecht (Chemistry)



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