



AbGradCon08 program

Sunday 13 April – AbGradCon is at the SETI Institute

9.00 am Coffee/tea

9.00 – 11.15 am Registration

9.15 – 9.30 am Conference opens – welcome from Tom Pierson, CEO, SETI Institute

9.30 – 11.00 am Tutorials

9.30 Biology/biochemistry for non-biologists – Rebecca Turk

10.00 Geology/earth science for non-geologists – Kristen Myshra

10.30 Physics/astronomy for non-physicists – David Harrington

11.00 – 11.15 am Coffee/tea

11.15 am – 1.15 pm Session I – Searching the universe

Chair: **Katherine Wright**

Overview talk **Dimitra Atri**

Oscar Martinez – Extraterrestrial organic ion chemistry

Douglas Galante – Impact of energetic astrophysical events on planets

Adam Edson – Modeling the habitability of planets

David Anderson – Results of a search for habitable-zone planets with superWASP

1.15 – 2.15pm Lunch

Carl Pilcher, Director, NASA Astrobiology Institute, will be visiting

2.15 – 4.00 pm Session II - Exploring other worlds part I - Ancient Earth and Mars

Chair: **Marina Antonio**

Overview talk **Sanjoy Som**

Jacob Haqq-Misra – Greenhouse warming of the Archean earth

Trinity Allen – Correlation of regional topography and Martian gully formation

Armando Azúa-Bustos – How to uncover the habitats of “life as we don’t know it” in other planets; the case of extreme environments of the Atacama Desert and the Andes Mountains of Chile

4.00 – 4.30 pm Coffee/tea

4.30 – 5.30 pm Session II - Exploring other worlds part II – Detecting life

Chair – **Marina Antonio**

Julia deMarines – Detecting biosignatures of an evolving earth-like atmosphere via New Worlds Observer

Kennda Lynch – Automated sample preparation for life detection technologies

Amy Smith – Microbial mediation of olivine dissolution: the role of chemolithotrophic iron oxidation in the formation of microchannels

Monday 14 April – AbGradCon is at the Santa Clara Convention Center

8.00 – 8.45 am Coffee/tea/continental breakfast

8.45 – 10.30 am Session III – The evolution of life on earth

Chair **Christa Hasenkopf**

Overview talk – **Katherine Wright**

Aaron Gronstaal – Biological weathering of iron meteorites and carbonaceous chondrites

Craig Herbold – Horizontal gene transfer of small subunit ribosomal RNA

Clara Fuchsman – Vertical Descent or Lateral Transfer? Unravelling the large number of Whole-Genome Reciprocal BLAST hits between anaerobic and/or thermophilic bacteria and archaea

10.30 – 11.00 am Coffee/tea

11.00 – 11.25 am – Getting your ideas across

Chair **Christa Hasenkopf**

Guest speaker: Linda Billings (Astrobiology journal)

11.25 am – 1.45 pm Poster and networking session over lunch

1.45 pm – 3.30 pm Session IV – Life's response to changing and challenging conditions

Chair: **Dimitra Atri**

Overview talk – **Amy Perkins-McKenna**

Shawn McGlynn - Activating [FeFe] Hydrogenase: Progress Towards Understanding Assembly of a Complex Metalloenzyme Cofactor

Rachel Horak – Nitrogen cycling in a novel symbiosis: An examination of nitrogen fixation by endosymbionts in a marine shipworm

Ivan Lima – *Deinococcus radiodurans* under a simulated state of Panspermia

3.30 – 4.00 pm coffee/tea

4.00 – 5.20 pm Developing the AbGradCon community

Discussion groups on taking forward initiatives to strengthen the astrobiology graduate student community

5.20 pm Closing remarks

5.30 pm Close of conference