Dear Colleagues,

Astrobiology as science has numerous challenges. We list here the challenges for which we would like contributors of this special issue to address: Definition of life; Origins of life: what came first, genetic material, such as RNA, or proteins; Origins of chirality in the biochemical molecules; Problems in functioning of the biomolecules which do not have proper chirality or have a mixed chirality; Viruses and the origins of life; Viroids and subviral particles: are they close to the RNA world; The RNA world: is it a result of a genetic takeover from a simpler system; Evolution of life: punctuated equilibria, graduated equilibria; Catastrophic events on Early Earth: did they destroy the original life; Chemistry on meteorites and asteroids: what does it tell us about the extraterrestrial chemical possibilities; Did life arise on the Earth several times; Future of life on Earth: what will happen when Sun heats up; Extraterrestrial life: is it similar to ours; Planetary protection: are we doing a good job; Protection of Earth as the host for life on Earth: are we doing a good job; Biogeomarkers identification; and Habitability: from microbes to humans.

Prof. Dr. Vera M. Kolb
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Guest Editors:

Special Issue website:
mdpi.com/journal/challenges/special_issues/challenges-astrobiology

Deadline for manuscript submissions: 30 May 2014

Special Issue Topics:
- Definition of life
- Origins of life
- Origins of chirality in the biochemical molecules
- Viruses and the origins of life
- Evolution of life
- Future of life on Earth
- Extraterrestrial life

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