COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
CHAIRMAN LAMAR SMITH

For Immediate Release
May 21, 2014

Media Contacts: Zachary Kurz
(202) 225-6371

Statement of Chairman Lamar Smith (R-Texas)
Full Committee Hearing on Astrobiology and the Search for Life in the Universe

Chairman Smith: As we discover more planets around the stars in our own galaxy, it is natural to wonder if we may finally be on the brink of answering the centuries' old question, "Are we alone in the universe?"

Finding other sentient life in the universe would be the most significant discovery in human history. Scientists estimate that there are 800 billion stars in the Milky Way. To date, more than 1,700 nearby planets have been found by the Kepler Space Telescope.

Last month, astronomers discovered the first Earth-like planet orbiting its star at a distance where liquid water could be present, a condition thought essential to life. Called Kepler 186f, it is only 10% larger than Earth and is 490 light years away.

The Transiting Exoplanet Survey Satellite, which will launch in 2017, and the James Webb Space Telescope, launching in 2018, will help scientists discover more planets with potential biosignatures.

The United States has pioneered the field of astrobiology and continues to lead the world in this type of research. A sample of professional papers published in Science magazine between 1995 and 2013 illustrates the significant growth and growing popularity of the field of astrobiology. Between 1995 and 2012, the number of papers published on astrobiology increased ten times and the number of scientific reports that cited astrobiology increased 25 times.

Astrobiology is a serious subject studied by serious scientists around the world. Reflecting this interest, next September the Library of Congress and NASA will hold a two day astrobiology symposium on what the societal impacts could be of finding microbial, complex or intelligent life in the universe.

Whether life exists on other planets in the universe continues to be a matter of debate among scientists. Around the world a number of astronomers listen to naturally occurring radio frequencies. They try to filter out the cosmic noise and interference of human-made satellites and spacecraft to find anomalies that could be signals from civilizations elsewhere in the universe.

The Allen Telescope Array at the SETI Institute, financed by Microsoft co-founder Paul Allen, and the Arecibo telescope in Puerto Rico are two well-known locations for conducting radio astronomy searches for life in the universe.

Recently radio astronomers have detected pulsed signals that last only a few milliseconds. These "Fast Radio Bursts" have caused scientists to speculate as to their cause. Some scientists hypothesize they could be from stars colliding or from an extraterrestrial intelligent source.

Other astronomers search for laser light pulses, instead of radio waves. Researchers at the SETI Optical Telescope, run by the Harvard Smithsonian Center for Astrophysics, the Columbus Optical SETI Observatory and the University of California at Berkeley, among others, use optical telescopes to try to detect nanosecond pulses or flashes of light distinct from pulsars or other naturally occurring phenomena.

I hope today's hearing will enable us to learn more about how research in astrobiology continues to expand this fascinating frontier. The unknown and unexplored areas of space spark human curiosity. Americans and others around the world look up at the stars and wonder if we are alone or is there life on other planets.

###