Although space diplomacy exists since the 1960s, the theme of astrobiology has been systematically neglected and has been relying on informal diplomacy-for-science efforts that utilize networks of wellconnected scientists. Even the recent bilateral diplomatic efforts of the 'Artemis Accords' appear to follow an innovation diplomacy rather than a science diplomacy approach. However, the trends of commercialization and militarization that are currently transforming the space industry complicate this picture: a potential detection of life beyond Earth, astrobiology's holy grail, is now becoming more imminent not only because of powerful new scientific capabilities but also thanks to the diversification and multiplication of actors and activities in space. This talk frames astrobiology as a prime frontier for the future of science diplomacy. Specifically, it discusses how diplomatic relations could further facilitate astrobiology, it illuminates opportunities for leveraging astrobiology research programs for strengthening diplomatic ties, and it sketches the potential future dimension of astrobiology findings and insights informing and supporting foreign policy objectives, especially in terms of actors engaging with the various goods offered by the global commons of outer space. These arguments are offered in support of a more prudent science diplomacy view towards astrobiology: a view that can help preempt potential risks to the geopolitical order--or even humanity itself--and maximize the benefits of this science both for the good of all humankind and for unifying the fragile geopolitical tapestry towards a transcendental effort to address deeply shared existential questions about life in the universe and humanity's place in it.