

# What does synthetic biology have to do with outer space?

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

I'm starting a project on *space synthetic biology* and how this self-identifying field is defining itself in relation to different histories and legal and policy regimes for biosafety. Synthetic biologists are increasingly publicly invoking outer space – from astronauts handing out industry awards, [to a DNA synthesis company](#) musing how synthetic biology could have helped *The Martian*'s stranded protagonist, to a [TEDx talk](#) on transforming human bodies for space colonization.

These frequent invocations connect synthetic biology to a grand narrative of outer space science and exploration, but at the same time, they are made casually, with no commitments.

Some synthetic biologists and astrobiologists are proposing a more substantive relationship between synthetic biology and outer space. They advocate the application of synthetic biology tools and approaches to outer space, mostly focused on engineering micro-organisms to such ends as: [biomining regolith](#) for metals, [producing biofuels](#), [growing enhanced algae as food](#), [replacing medications that have degraded in cosmic radiation](#), and [terraforming Mars](#).

**Read full, original post:** [SynBio Perspectives: Biosafety on earth and beyond – planetary protection policies](#), biotechnology and space synthetic biology