

Life

LIFE IS A WONDER of its own. It conceivably struck this planet at least some 3.7 billion years ago,¹ arguably the consequence of a phospholipidic layer-bound *quantum leap* in a soup of organic precursors.² From that singular moment on, little has been spared in guise of amazement.

¹ Schopf et al., 2007

² Miller and Urey, 1959

The first factual evidence of life on Earth appears inscribed in the fossil record some 3.5 billion years ago. It consists mainly of microfossils and ancient rock structures in Greenland and Australia called stromatolites,³ the product of the metabolism of photosynthesizing cyanobacteria.

³ Ohtomo et al., 2014; and Noffke et al., 2013

There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

How ironic that one of the best models to understand this order of things is actually one of its most harrowing violations: cancer.

Cancer

Bibliography

Stanley L. Miller and Harold C. Urey. Organic compound syntheses on the primitive earth: several questions about the origin of life have been answered, but much remains to be studied. *Science*, 130(3370):245–251, July 1959. ISSN 0036-8075, 1095-9203. DOI: 10.1126/science.130.3370.245. URL <http://www.sciencemag.org/content/130/3370/245>. PMID: 13668555.

Nora Noffke, Daniel Christian, David Wacey, and Robert M. Hazen. Microbially induced sedimentary structures recording an ancient ecosystem in the ca. 3.48 billion-year-old Dresser formation, Pilbara, Western Australia. *Astrobiology*, 13(12):1103–1124, November 2013. ISSN 1531-1074. DOI: 10.1089/ast.2013.1030. URL <http://online.liebertpub.com/doi/abs/10.1089/ast.2013.1030>.

Yoko Ohtomo, Takeshi Kakegawa, Akizumi Ishida, Toshiro Nagase, and Minik T. Rosing. Evidence for biogenic graphite in early Archaean isua metasedimentary rocks. *Nature Geosci*, 7(1):25–28, January 2014. ISSN 1752-0894. DOI: 10.1038/ngeo2025. URL <http://www.nature.com/ngeo/journal/v7/n1/full/ngeo2025.html>.

J. William Schopf, Anatoliy B. Kudryavtsev, Andrew D. Czaja, and Abhishek B. Tripathi. Evidence of Archean life: Stromatolites and microfossils. *Precambrian Research*, 158(3–4):141–155, October 2007. ISSN 0301-9268. DOI: 10.1016/j.precamres.2007.04.009. URL <http://www.sciencedirect.com/science/article/pii/S0301926807001209>.