Introduction to the Astrobiology Primer

DAVID MORRISON

THE ASTROBIOLOGY PRIMER represents a remarkable initiative by students who will be the astrobiologists of tomorrow. Perhaps more than most of us, this first cohort of astrobiology graduate students and post-docs has a major stake in the future of this new science. They have also faced directly, in their Ph.D. work, the challenge of defining the content of astrobiology. The Astrobiology Primer represents a concise summary of the basic knowledge that any astrobiologist should understand.

Lucas Mix and a score of his colleagues have created Version 1 of this primer, which is published here in *Astrobiology*. From their experience as students, they have written seven chapters that span the breadth of this interdisciplinary field. This is not a textbook, and of course it cannot provide complete coverage of this field. Rather, it is a concise summary of facts and vocabulary, with a few key literature citations, representing what these students consider most important for them to know in order to enter this discipline.

The beauty of this approach is that the basic facts a student needs are also those that more senior astrobiologists should learn in order to be literate in this discipline. This primer can serve many scientists as a compact review of astrobiology. Readers of *Astrobiology* should enjoy testing their perspectives about the content of astrobiology against the collective judgment of this group of students. This Primer can also be a handy reference work, something we might scan before attending a scientific paper or colloquium in a field of astrobiology outside our own.

The present Primer represents a substantial accomplishment. It will be even more valuable if it can be updated as new information becomes available. The many literature citations, in particular, could be profitably enhanced as the field advances. The challenge, therefore, is to find a way to update this Primer on a regular basis without adding to its total length. Lucas Mix and his team have done their job; will the next generation of astrobiology students and post-docs volunteer to maintain this Primer as a living document?

NASA Ames Research Center, Moffett Field, CA 94035, *E-mail*: dmorrison@arc.nasa.gov Dr. Morrison is the Senior Editor in charge of Education Papers for *Astrobiology*.