Honoring the fundamental role of microbes in the natural history of our planet

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Inspired by a 2009 colloquium on microbial evolution convened at the Galapagos Islands, a new book from ASM Press, Microbes and Evolution: The World That Darwin Never Saw celebrates Charles Darwin and his landmark publication On the Origin of Species. The editors compiled 40 first-person essays, written by microbiologists with a passion for evolutionary biology, to illuminate how each scientist's thinking and career paths in science were influenced by Darwin's seminal work.

Intended for a general audience, Microbes and Evolution explores how the evidence of microbial evolution deeply and personally affected each scientist. Readers can expect to be surprised and delighted with these intimate viewpoints on the importance of evolutionary principles in the study of a variety of aspects of life science, from taxonomy, speciation, adaptation, social structure, and symbiosis to antibiotic resistance, genetics, and genomics.

"Despite the political rhetoric about evolution, microbes provide compelling examples of natural selection—examples that affect all of our lives every day. We thought the best way to tell these stories was to ask scientists who work in this field to share their discoveries in a way that explains why they find microbial evolution exciting and important. And along the way, they provide interesting insights into how they think about science, revealing personalities that are as diverse as the microbes they study," say Roberto Kolter of Harvard Medical School who co-edited the book with Stanley Maloy of San Diego State University.

"To celebrate the anniversary of both Darwin's birth and the publication of On the Origin of Species, a select group of microbiologists met in the Galapagos Islands, bent on reconciling modern microbiology with classical evolutionary theory. Their essays, born of this historic gathering, appear here, each written in an erudite yet highly personal style. Consequently, this book is not only highly informative, but a great deal of fun to read. About half of them had something to say about Darwin; the other half, what Darwin would have said about them," says Moselio Schaechter, distinguished professor emeritus, Tufts University School of Medicine; adjunct professor emeritus, Department of Biology, San Diego State University; and, visiting scholar, University of California at San Diego.

Richard Losick, Maria Moors Cabot Professor, at Harvard University, describes Microbes and Evolution as "A breathtaking range of topics are woven together under a common theme that takes the reader from the origin of microbial life to its diversity, from mutualism and competition to efforts to recapitulate evolution, from the diversity of bacterial viruses to 'the smallest and most abundant microorganism in the ocean.'"

"This book is an excellent collection of articles and should be read by everyone working with bacteria (and others as well) or thinking of doing so," says Charles Yanofsky, professor emeritus, Department of Biology, Stanford University.

More information: Microbes and Evolution has a list price of $14.95 and can be purchased through ASM Press online at bit.ly/asm053012

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