

Living in a Microbial World

Microbial Appetizer

Here comes a huge textbook with sometimes unscientific and occasionally even inaccurate information. But it's not all bad.

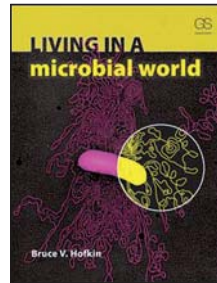
Did you know that it was the wife of one of Robert Koch's colleagues who proposed the use of agar for bacterial plates? Or that, in the pre-antibiotic era, syphilis was treated by the deliberate infection of patients with malaria?

These and more microbiological facts have been collected by Bruce Hofkin, in his book *Living in a Microbial World*. Hofkin, a parasitologist by education, may not necessarily pass for a scientific celebrity. According to *Pubmed*, his latest publication – he has just eight in total – is nine years old (a 2001 communication about a conference of the American Society of Parasitologists).

Obviously, the professional focus of Hofkin, whose PhD investigated the biological control of schistosomiasis in Kenya, is not longer on research. Rather, teaching is what he does. Here, he no doubt has experience: Starting as elementary and high school teacher, he had assignments at various Community Colleges before arriving at his current post of biology lecturer at the University of New Mexico. This is lecturer Hofkin's first textbook.

Scratching the surface

According to the preface, Hofkin's huge and heavy paperback (more than two



pounds in weight!) targets “college students with a non-science major”; in other words, not only (micro) biology novices, but science novices too. Consequently, the reader is confronted with chapters such as “Atoms” and “The Scientific Method”, before arriving at more microbiological topics. These do indeed cover – well, touch on – much of what your *Lab Times* reviewer remembers from her own microbiology studies. Would Hofkin's book have been a good companion for these studies? Yes, as an appetizer. It gives a broad overview of cell biology, genetics, the metabolism and evolution of microorganisms and topics such as ecology and applied microbiology. Even “microbial” cooking recipes and real world case studies are included.

Tendency to become inaccurate

However, do not expect an in-depth explanation of any of these topics. You will hear about glycolysis – and the description of metabolic processes is understandable enough – but you will be spared the names of most intermediates. In this context it is indeed neglectful that any kind of reference, or suggestion for “further reading” is absent from the book. This negligence also tempers what is probably the best feature of the book: Numerous astonishing microbiological facts and anecdotes, interspersed throughout the text. Want to read more? Grab a copy and get browsing.

The book is written in a very colloquial, almost casual (“conversational” according to the in-

roduction) style, which, in principle, would be fine if not for a tendency to become unscientific and inaccurate. In Hofkin's microbial world, bacteria exchange “dangerous” genes during conjugation, prion protein manages to be localised “on the surface of the brain”, and viral genes “begin to code for protein” once they are released into a cell.

Living in a Microbial World is an easy and engaging read, and it may, by all



Figure 9.6b from *Living in a Microbial World*

means, serve as an appetizer to spark a newcomer's interest in microbiology. Those who wish to begin with a popular book, and are not in particular need of linguistic – and thus scientific – accuracy, and whose hair doesn't stand on end when Hofkin calls organisms “living things,” are well served by this work. More advanced biologists may find it difficult to take Hofkin seriously.

CHRISTINE HASSLER

Bruce V. Hofkin: *Living in a Microbial World*. Garland Science/Taylor & Francis, 2010. 512 pages, €107.--.



Photo: Bruce Hofkin

The author, Bruce Hofkin (right), doesn't just work with microorganisms.