
Welcome to Biotech Nation

Moira A. Gunn, PhD

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The history of science has always fascinated me. Each story about Galileo, Einstein, or Watson and Crick brings to life another momentous step in our understanding of the universe. These steps invariably lead up to the present day and the story of ‘Now’. Who should tell this story? None other than the scientists making the big breakthroughs and exploring the big ideas. Unfortunately, few scientists can write a book to a general audience or even someone from another scientific field. This is where science journalists, such as Moira Gunn of radio’s *Biotech Nation*, can step in and help tell the story of science.

In her book, *Welcome to Biotech Nation*, Dr Gunn lays out a tour of the many hotspots in the science and business of biotechnology. She spends a great deal of time introducing the key players in fields like genetically engineered food, artificial insemination, novel diabetes and prostate cancer testing, pharmaceutical development overseas, and corn ethanol production. It is interesting to hear the business side of the story along with the discoveries in the lab. One of the best examples is her interview with Invitrogen’s Dr Mahendra Rao on the topic of Presidential stem cell lines. Strict rules regarding the segregation of the two types of lines have created a strange dichotomy in many laboratories. Dr Rao discusses how his company has found reasons to use cell lines

included in President Bush’s 2001 executive order (meaning they receive federal funding) as well as lines developed without federal aid.

The real eye-catcher for me was the author’s one-on-one with Dr Ananda Chakrabarty. Dr Chakrabarty holds the distinction of being the first person granted a patent for a genetically modified organism. The patent in question was for bacteria that could consume multiple types of crude oil, for use in cleaning up oil spills. His patent application, which he explains was his first, began an enormous conflict over patent law that eventually made it to the US Supreme Court. Hearing first hand Dr Chakrabarty’s insight into the landmark *Diamond v Chakrabarty* case was interesting enough to warrant a read, and the other interviews do not disappoint either.

There is no question that the primary quotations from *Biotech Nation* are impressive. There are, however, a few other components of the book that drove me crazy. The principal thing that made me, at times, want to throw the book out the window was the writing style. It is a very common convention to lead into a new chapter with an interesting quote taken out of context, digress from the subject of that quote, and then come back to it at the end of the chapter. This ensures the reader will keep reading to find out the context of the ‘reverse

cliffhanger'. Unfortunately, this convention is not as effective in science literature as it is in, say, pulp science fiction. Also, a single example of this in the book would have been understandable, but it seems that Dr Gunn felt that every chapter called for it.

This leads to my second criticism: another literary convention. The use of 'asides' in plays, like those of Shakespeare, is an excellent way to add comic relief to an otherwise tense situation. Unfortunately, the aside is an awkward tool to use in a book that is already in the first person. This is compounded by the fact that Dr Gunn's asides are frequent, italicised, and filled with '!?!?' laden statements that this reviewer testifies are better left unread.

Her analysis of the biotech world is an interesting one, because it comes primarily from her experiences with the people who guide it. This is a good thing, because, by her own admission, her personal knowledge of biotechnology through training or education is effectively nil. I say this because it seems to be one of her main points and she devotes much of the first two chapters elaborating how naïve she is in every aspect of the life sciences. While it illustrates where she is

coming from, it comes off as a way to attract more general audience readers to purchase the book. Also, starting the book with an admission of ignorance did not make me confident that it had not been dumbed down for a general audience. As it turns out, the book has not been dumbed down very much at all, and while some sections do begin with the explanation of scientific principles, Dr Gunn's method of questioning her guests invokes clear responses and less clarification than one might expect in a general audience book about science.

In the end, the decision to read *Welcome to Biotech Nation* hinges on the topics of interview. I was sufficiently personally intrigued by almost every topic to continue reading until the end, but I can see how those with an acute sensitivity to strange writing styles might feel otherwise. The purpose of the book is to share Dr Gunn's experiences in the biotech world and in that respect it is a great success.

James Rogers

*George Mason University, Undergraduate,
Fairfax, VA, USA.
E-mail: jrogersa@gmu.edu*