A Book Review

A review of current publications relating to the field of Intellectual Property licensing, transfer and tools therein.

A book review by attorney, and genetic engineer Breffni X. Baggot, who is located at the University of Chicago.

"The Biotech Century: Harnessing the Gene and Remaking the World" by Jeremy Rifkin, Esq.

Paperback: 271 pages
Publisher: J. P. Tarcher; (April 1999)
ISBN: 0874779537

And the royalty base of the future is in biotechnology.

"In little more than a generation, our definition of life and the meaning of existence is likely to be radically altered," writes Jeremy Rifkin, Esq. in his new book, The Biotech Century: Harnessing the Gene and Remaking the World. By the time you get done with his book, you will feel as if he has understated the fact.

First, he says that in the biotech century, the world's gene pool will be available for the first time as a resource for a new economy. Second, patents on life will give incentives to exploit the new resources. Third, the globalization of commerce makes possible a second genesis.

Fourth, mapping of the human genome will pave the way for a commercially driven eugenics civilization. Fifth, new scientific and social studies on the genetic basis of human behavior provide a context for the public acceptance of biotechnology. Sixth, computers will provide the medium for all these changes. Seventh, Darwinism is dying and being replaced. A new definition of evolution is here and with it, a new cosmology and a new concept of what people think life is all about.

Should biotechnology be patented? Rifkin's view is that biotechnology should be like the village commons – free for all. He uses the term "life patents" throughout his book, but it makes no more sense to describe a biotechnology invention as a patent on life than it does to say that the Wright Brothers patented the wind after they invented the airplane or to say that Alexander Graham Bell received a monopoly on speech after inventing the telephone.

In deriding patents, Rifkin quotes with approval the views of Nobel Laureate and University of Chicago alum James Watson, who has described gene patents as "sheer lunacy." I have on my desk Watson's book describing the naturally occurring molecular biology of genes. Curiously, Watson has a copyright notice in the front of his book.

Rifkin's views on patents are not clear because he addresses the question en grosse, rather than on a patent by patent basis. It will be interesting to see whether Rifkin can clarify his views in his next book. It will also be interesting to see whether he can take the issue a step farther – relating patent issues to other legal issues.

For example, members of the European Union voted to make illegal patents on human embryos stating "human dignity" as their reason. On the other hand, it is legal to abort the same human embryo. Is there more dignity in dying than living as patented property? Rifkin is good at asking questions, but maybe his next book will show him to be equally skilled at providing answers, especially to this question.

He talks of the risks of a second genesis. He warns, for example, that plants engineered to be insect-resistant will lead to insects resistant to those plants. He also warns of "depletion of the gene pool" caused by selection of the best and the brightest individuals. Rifkin does not acknowledge that if we choose, we can select for genetic diversity to produce the best and the brightest species.

What troubles Rifkin is less that the planet's biosphere will be remade over than the fact that the second genesis is "occurring without a compass." No one is directing the juggernaut of science – least of all the scientists. Heard of DDT?

His chapter on eugenics is among the best, demonstrating what could happen if the power of biotechnology is combined with genetic elitism. The chapter starts with a quote preaching that society "has no business perpetuating the blood line of citizens of the wrong type." One checks the footnote and expects to find the source to be Adolph Hitler. Instead, it's Theodore Roosevelt.

Rifkin builds on this. He then goes on to say that sociologists increasingly point to genetics as the main factor in human behavior. In the biotech century, humans will want to change human behavior by changing human genes. Here again, Rifkin asks some great questions: after how much genetic enrichment will we have lost the thing we were so anxious to enrich – our humanity?

Rifkin's next chapter prepares us for a new "cosmology" – a new comprehensive philosophy of everything. He describes an old cosmology, Darwinism, as "little more than the application of economics to biology."

That intellectual gem aside, the chapter is well worth the read for its ideas: Darwinism – speciation based on sex-linked traits – will be a thing of the past. In its place will be a new definition of evolution in which every living thing is selected by humans in "the greatest shopping experience of all time." Imagine eBay as Genebay.

Did you think it was important to read "The New, New Thing" by Michael Lewis? Rifkin's book is probably just as important, if not more important. Biotechnology will change the world more than computers ever have (no computer ever procreated). Computers don't have sex. Organisms do.