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 Book reviews
 

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**Plant, D.W.; Reimers, N.J.; Zinder, N.D. (eds.): Patenting of Life Forms. Banbury Report 10.** Cold Spring Harbor: Cold Spring Harbor Laboratory 1982. xiv+337 pp., several figs., several tabs. Hard bound \$ 78,-.

This, the tenth report from the Banbury Center, makes a definite shift away from the Center's previous focus on environmental health risk assessment to the more general area of the social implications of advances in molecular biology. It is the report of a meeting attended predominantly by scientists and lawyers to explore the impact and full meaning of the 1980 *Chakrabarty* decision by the United States Supreme Court. This decision allowed Ananda Chakrabarty to obtain a patent from the U.S. Patent and Trademark Office for a microorganism developed by genetic manipulation. To the general public it seemed to follow that "life" could be patented.

The discussions around this subject were aided by the attendance of judges, lawyers, patent office examiners, representatives from many of the companies involved in genetic engineering, and a large number of scientists. Lawyers were able to learn about the complexities of recombinant DNA technology and its immense potential, while scientists for their part could begin to see why the emergent technologies (of recombinant DNA) could be handled by the well-established tradition of patent law. As can be gleaned from the pages of this book, both sides of the argument, lawyers and scientists, realised the true impact of the now celebrated *Chakrabarty* decision will become apparent quite slowly as the result of case-by-case decisions on patents and by law suits over those patents.

The reader of this book will find that the barriers and suspicion which would normally greet a meeting of lawyers, businessmen and scientists were overcome in this meeting and the result was a high degree of mutual understanding and hence progress was made. As a consequence, the role of patents in enabling the public to benefit from practical applications of recombinant DNA was better understood by all, and nothing about the technology itself should prevent the innovator from applying for appropriate patent protection.

J.F. Jackson, Glen Osmond

**Hagemann, R. (ed.): Leopoldina Diskussionskreis: Evolution der eukaryotischen Zelle. Nova Acta Leopoldina NF Nr. 251, Bd. 56.** – Halle (Saale), Deutsche Akademie der Naturforscher Leopoldina, Leipzig: J. A. Barth 1982. 79 pp., 16 figs., 10 tabs. Soft bound DM 18,-.

This presentation of a discussion on the evolution of eukaryotic cells is not completely superannuated, but it only gives the situation up to 1977. Since that time and because of new investigative methods, such as DNA and RNA sequencing, fundamental new insights and concepts on the evolution of prokaryotes and eukaryotes have been developed. Therefore the editor was right when he tried to up-date the book by adding both a selected bibliography on the topic of evolution of the eukaryotic cells in an appendix and a perspective on the new view by comparison of homologous gene sequences.

The chief matter of the booklet are 4 lectures, which were given during a discussion meeting of the venerable German Academy of Scientists Leopoldina at Halle in 1977. After a general introduction by the organizer, W. Hennig developed ideas on the evolution of the nucleus, chromosomes and cells in higher organisms. The compartmentalization of mitochondria and plastids is looked at from two controversial points of view: the hypothesis of an endogenous compartmentalization is presented by Henry R. Mahler from Bloomington; the endosymbiotic hypothesis of the evolution of plastids and mitochondria is presented by Peter Sitte from Freiburg. The material presented by these 3 speakers must have given rise to a critical and vivid discussion, but this can only be suspected, since it is not given in this report. Most fruitful is the essay added later by R. Hagemann and R. Piechocki on recent developments.

These clear-cut essays together give a sound base for discussion of scientific hypotheses, but to my regret (for technical reasons) from the day before yesterday.

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