

Book reviews

Why Animal Experimentation Matters: The Use of Animals in Medical Research. E. F. Paul and J. Paul. Transaction Publishers, New Brunswick, USA. 2001. Pp. 224. Price \$49.95, hardback. ISBN 0-7658-0025-X

This thought-provoking book comes out of the Social Philosophy and Policy Foundation, an independent corporation established to promote advanced research in political philosophy and in philosophical analysis of public policy questions. The use of animals for medical research is being threatened by animal rights activists who propose severe restrictions or abolition of experimental work.

In their essays, the eleven American authors challenge many flawed perceptions promoted by animal rights groups. These include misrepresentation of historical facts, and the contributions to human and animal health, by the use of experimental animals. Fortunately, activists efforts so far have not slowed down progress of biomedical and pharmacological research. In much of the world with epidemiological and nutritional challenges any animal activist agenda to shut down or hinder animal research is, as one author comments “fanatical, even suicidal”. Several authors go further and argue that to deny much of the world’s population hope for vaccines and other medical cures is inhumanity towards humans.

Some animal rights groups concede that applied research is justifiable but that basic research should be prohibited. As the author of one essay points out, this view jeopardises both the advancement of knowledge and the remediation of human disease.

The question is raised of how human and animal interests can be balanced. The European view gives greater significance to animal interests than the American approach. However, both are closer to the human-priority view than either the UK or German statutes, which are more towards equality in human and animal interests.

Several authors argue from the evolutionary perspective in defending animal experimentation. They suggest that to disallow the acquisition of medical and agricultural knowledge would be a maladaptive strategy, that may endanger human survival. The philosophical bases of the animal rights groups are discussed and the reader is required to carefully follow often unfamiliar arguments. However the end result is well worthwhile.

At the end of the book’s introduction the hope is expressed that, ‘these essays will advance public debate on this vital issue.’ It is hard to imagine that the general public will read such a book, but hopefully the scientists and students who carry out animal based research will use the arguments when explaining and justifying their research.

There is a useful index and I found the endnotes for each chapter interesting. I would have liked an alphabetical list of literature references at the end of the book.

It becomes evident after reading this book that animal rights movements are only sustainable in affluent societies. It is the responsibility of these societies to work towards the alleviation of diseases, which much of the world suffers. This book should be welcomed by the research communities in all countries where animal based research is conducted.

JUDITH K. BLACKSHAW
*School of Veterinary Science
The University of Queensland
St Lucia 4072
Australia*

The Biochemistry of Cell Signalling. E. J. M. Helmreich. Oxford University Press, New York. 2001. Pp. 328. £29.95, paperback. ISBN 0-19-850820-4

New text with Onion Tart (Neuer Text mit Zwiebelkuchen)

A German friend once remarked that the English admire foreign language quotations but habitually get them wrong. Ernst Helmreich has no problem with one of Goethe’s maxims, with which he prefaces his new book, but his awkward translation (with misspelling) does glare rather ironically from the page.

This pocketbook text provides a compact overview of cell signalling, aiming to fill a niche between full-blown textbook and review monograph. It is a huge subject and this book is certainly packed with information, but given the space limitations, compromises have had to be made. The main text is subdivided somewhat arbitrarily into four sections. The first and longest, entitled the machinery of signal transduction, appears set to describe the various molecules involved in signal generation, reception and intracellular transduction. The opening comparison of receptor families is, however, bisected by a discussion of growth factor processing and membrane shedding, while resorting to forward references for cytokine and G protein-coupled receptors. The subsequent brief chapter on receptor oligomerisation again belies a lack of didactic structure. And so one is led from adaptors to small G proteins, cascading down MAP kinase pathways and gliding over lipid signals with just a sideways glance at cytoskeletal assembly in two short chapters. Only then does the frenetic style relax with more balanced chapters on heteromeric G proteins and pathways controlling morphogenesis and haematopoiesis. Overall, the section covers the basic material and includes some good illustrative detail, but in accessing it I found myself flicking back and forth with fingers between pages and distracted by the inconsistent style. However, omissions need to be remedied, including MAPKAP and ribosomal S6 kinases, the paracrine-mediated transactivation of receptor tyrosine kinases by G protein-coupled receptors and lipid-mediated cell survival signals.