Detection of Epstein-Barr virus in archival Hodgkin's disease specimens

The Epstein-Barr virus (EBV) is associated with several malignancies, including endemic Burkitt's lymphoma, undifferentiated nasopharyngeal carcinoma, post-transplant lymphoproliferative disease, and Hodgkin's disease. The "gold standard" for the detection of EBV infection in clinical tissues is RNA in situ hybridisation that targets the abundantly processed, para-nuclear protein LMP1. As described previously,1 LMP1 was detected in five of 14 Hodgkin's disease specimens, where staining was confined to the cytoplasm of Hodgkin-Reed-Sternberg cells (fig 1). Four of these five cases were also positive for EBV in situ hybridisation (fig 2).

These results indicate that archival specimens stored for periods in excess of 50 years, or those that were subject to less than optimal tissue processing, are still viable for the detection of EBV. These approaches will allow the collection of valuable comparative information about whether EBV prevalence in certain tumour types, such as Hodgkin's disease, has altered over time.1

Specimens were reviewed by haematologist and cytomathin staining in all cases. All histologically confirmed Hodgkin's disease specimens were subjected to EBER in situ hybridisation and immunohistochemistry for LMP1, as described previously.1 LMP1 was detected in five of 14 Hodgkin's disease specimens, where staining was confined to the cytoplasm of Hodgkin-Reed-Sternberg cells (fig 1). Four of these five cases were also positive for EBER in situ hybridisation (fig 2).

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K J FLAVELL
J A LINFORD
J R FLAVELL
P G MURRAY
L S YOUNG
K SCOTT
School of Health Sciences, University of Wolverhampton, Wolverhampton WV1 1BJ, UK


Molecular Techniques in Medicine.

All books are idiosyncratic, reflecting their authors in some way or other. This is a multi-author book, so its idiosyncracies mirror that fact. It is intended to be a working book, not bedtime reading, and it does not fail the latter criterion. It's not something for the wee small hours. Whether it's something for the daily round, the common task, is another matter. It all depends. Depends on the task, and upon you. So what is it? It starts from a narrow view of molecular biology. Molecular biology is claimed to be nothing more than the science of DNA and RNA, which would probably come as quite a surprise to the founders of the Journal of Molecular Biology. In other words, proteins are largely ignored. However, that a working book is focused is no bad thing. Too wide a range and it would be unmanageable in a laboratory. So what is it? It's a collection of recipes arranged in a hierarchy. It's not the whole of molecular biology. It doesn't contain a molecular biologist's dictionary: how to extract nucleic acids, how to modify and analyse them, how to clone DNA fragments, how to make and use various sorts of DNA libraries. In addition, it covers some more specialist areas, such as chromosome analysis by fluorescent hybridisation and transgenic animals. So is it useful? Well, yes and no! I haven't tried the recipes as such in detail, but they are along the same lines as other similar books, and I'm sure they work. So is it useful? Yes, and no! It depends on what you want to do and on you. If you want to do everything from scratch, much of this book would be useful. But in my experience not so many people want to do the things mentioned. For commercial companies provide so many kits for so many methods with such good instructions that one hardly bothers to do it any other way. The easy ways have enormous attraction. When you can't make a gene walking kit, why screen a lambda gt library? For the more specialist topics, I would hate to think that this was all I had.

So why did I mention idiosyncracies? Well, there are omissions; quantitative polymerase
chain reaction, gel shift and supershift assays for transcription factors, name but a few. And on the side of superfluity, does one really need two chapters on pulsed field electrophoresis? In 15 years of working in and visiting molecular biology laboratories, I have only ever come across one group using the technique, and when I showed some interest, they gave me the equipment because they needed the space for something else. It’s still somewhat of a novelty, of course, but that’s my deficiency probably. Would I buy this book for my research group? Probably not! But I might buy it to use some of the basic recipes for setting up undergraduate practical sessions.

DAVID BOYER RAMSDEN


This book forms part of the Contemporary Endocrinology series published by Humana with an amazing 12 other titles appearing in 1999. As the editor indicates, the aim of this book is to concentrate on those topics that have shown the most rapid change, and the book itself is therefore not comprehensive, although individual chapters are. As an approximation, growth receives the greatest attention, followed by steroid hormones and then a miscellany of topics—diabetes (mellitus and insipidus), thyroid cancer, and hypophosphataemic rickets. In no sense is the term “miscellany” intended to be derogatory; I particularly enjoyed the chapters on diabetes insipidus, thyroid cancer, and aspects of putative development, reflecting personal areas of ignorance and/or interest. The emphasis for most chapters is on molecular rather than cellular aspects, and most cover the clinical implications. An odd chapter here or there is rather dense, with no illustrations, making it heavy reading for physicians. One indication of the book’s seriousness in covering information in a book about lung cell and molecular biology of the lung. These actions reflected appreciation of the skyrocketing growth occurring in these areas of lung research. Molecular Biology of the Lung, Volume I and II, is another indication far the field of lung cell and molecular biology has progressed.

The subtitles for these volumes, “Emphysema and Infection” for Volume I, and “Asthma and Cancer” for Volume II, show that the study of lung cell and molecular biology has extended to lung diseases. Indeed, “Diseases” could have been added to the book’s title after “Lung” to highlight that the overriding focus is on the cell and molecular biology of lung diseases rather than on the normal lung. However, pulmonary clinicians beware! Without considerable grounding in contemporary biology it would be a struggle to comprehend much of what is presented. These chapters are not watered down basic science of disease meant to be enrichment reading for physicians. One of the book’s seriousness in covering information in depth is the density of text pages relative to figures, tables, and charts. Most chapters have only a few figures; some have none. Another indication is that the references are almost exclusively to original research papers in basic science journals, rather than to reviews or articles in journals typically read by clinicians.

Each volume leads with an excellent chapter not linked to a single lung disease. In Volume I, the introductory chapter presents principles of making genetically altered mice and in Volume II it covers principles of gene therapy and applicability to lung disease, such as surfactant protein B deficiency. These themes are taken up in some of the subsequent chapters, for example in the use of transgenic mice to study lung infections, and the application of gene therapy for lung cancer.

Emphysema is particularly well suited for coverage in a book about lung cell and molecular biology because of the compelling amount of cellular and biochemical data to neumunase inhibitors (for example, 4-guanidino-neu5ac2en), are not put into a strong clinical context. The principle and potential of so called antisense oligonucleotides as possible antiviral therapeutics is only mentioned briefly, but no tests to evaluate them are identified.

Overall, I found the methods described well and in detail, but the introductory paragraphs of chapters were short on background information. In contrast, the annotations of individual authors about possible pitfalls and problems of methods, as well as ways to overcome them, are very helpful. More examples on clinical applications for which, after all, these methods are important would have been beneficial. Most references are up to date up to about 1996. Given the increasing importance of antiviral testing in clinical settings this book is timely in addressing the topic.
pointing to inflammation and proteinase imbalance as key features of its development. The editor’s prominent role in this field clearly shows in the selection of six interesting and authoritative chapters about mouse models of emphysema, serine proteinases, elastase inhibitors, and connective tissue genes. I found the chapter about the regulation of neutrophil proteinases especially informative. Although at least three or four years have elapsed since the chapters in this section were written, judging from the reference lists, they still hold up well in 2000. Similarly favourable comments could probably be made about the other chapters of the book, considering the distinguished authors, but I am less familiar with these other topics than with emphysema.

Choices are inevitable in selecting topics for a book on such a broad field as the molecular biology of the lung from the perspective of disease. Clearly, this book includes many of the important areas, but one wonders why interstitial lung disease with its intriguing features of fibrosis and inflammation was not included. Also, I would have enjoyed an introduction by the editor so that I could read his overall perspective on the field of lung cell and molecular biology, and his rationale for the topics he chose to include in the book.

ROBERT M SENIOR

Notice

Therapeutic Applications of Leucocyte Filtration
Hammersmith Hospital, Imperial College, London, UK
7 July 2000

This prestigious meeting has been organised by Professor K Taylor and Dr T Gourlay who have invited a guest panel of international speakers. Additional areas include leucocyte filtration of salvaged blood; total leucocyte control for cardiovascular surgery; and new therapeutic applications for use in sepsis patients in ICU and for patients undergoing angioplasty, etc. Speakers will include Gr W O’Neill, Professor KJ Oldhafer, Dr M Cross, Dr G Matheis, Professor S Homer-Vanniasinkam, Dr J Parker Gott, BS Allen, Dr A Fabbri, Dr L van der Warrings, Dr KA Brown, and Dr D Teacher.

Abstracts are invited for poster presentations and prizes will be awarded to the best three.

For further details, abstract forms, and registration forms please contact: Jean Bryant, Wolfson Centre, Imperial College of Science, Technology and Medicine, Hammersmith Hospital, Du Cane Road, London W12 ONN, UK; tel +44 (0) 208 383 3117; fax: +44 (0) 208 383 2428; email: wcc@rpms.ac.uk