KINCORAN OPINION

THE PLACENTA — A NEGLECTED EXPERIMENTAL ANIMAL

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Recently I received a rather strange book with the above title*. I say strange because I know virtually nothing about the placenta, and I am no authority on experimental methods. In sending me the book, apparently it was felt that I might appreciate what was regarded as a novel approach to the collation of knowledge from different scientific disciplines and, furthermore, that the subject matter might stir my curiosity. This was right on both counts.

The first effect the book had on me was to make me think about the placenta as a functioning organ, and as I did so I wondered why I had not done so before. How was it that so little attention had been paid to this remarkable organ in the medical school curriculum and later? How readily we detach it from foetus and mother and then toss it down the sluice with scarcely a thought for the extraordinary role it has just fulfilled.

One of the editors of this book has had such thoughts for a long time. Peter Beaconsfield, from the SCIP Research Unit at the University of London, has been endeavouring for many years to gain acceptance for his belief that the placenta could serve as an experimental model for much human medical research, especially for the testing and evaluation of drugs and chemical compounds. As the Swedish Nobel Prize-winner, Hugo Theorell, puts it in his foreword to the book, it is somewhat surprising that the placenta has been neglected for so long, "when we consider how much effort has been applied to seemingly less satisfactory and less freely available alternatives. The placenta's remarkably complete spectrum of cellular and biochemical activity, as well as its hormonal and endocrinological roles and its short life-cycle, adds to its suitability for studying the processes of cell replication, immune mechanisms — notably graft acceptance and rejection — and perhaps ageing."

In October, 1978, a meeting or, as it was called, a Round Table Discussion, was convened at Bedford College, and it would seem the experts do acknowledge that the placenta has been sadly neglected, and that their knowledge is deficient because research has been lacking. The organisers of the meeting hoped to engender enthusiasm in the scientific and medical world for re-assessment of the placenta as an experimental model, and I think they may have failed. This is mainly because the idea, although well conceived, has been poorly served by some of the contributors. The book is mighty dreary and difficult to read, and may be read only by scientists and doctors with an intense interest in the subject. In other words, the contributors are preaching to the converted whereas they need to bring their doctrine to the heathens, such as me, in other areas of medicine and science. Perhaps one of the most surprising features is that only eight pages are devoted to the actual use of the placenta as an experimental model, and I feel that Maureen Young should have been given a broader brief to expand her subject, because it is on the basis of what has been done in this area that researchers in the clinical field will seek potential for future work.

So much for the book and its contents. There was another, and perhaps more important, aspect to the meeting at Bedford College and that was the structuring of the meeting and the selection of contributors. Rebecca Beaconsfield criticises contemporary international congresses, pointing out that attendance is more likely to be "motivated by the opportunity to visit an unknown place at somebody else's expense", and that significant advances are rarely announced, the most useful work being done outside the conference session, often over a drink. She feels that the expense of these mammoth gatherings is not justified by the scientific output. In all honesty, it is difficult not to agree.

The meeting at Bedford College broke with tradition in that it invited a small number of participants from different scientific and clinical backgrounds at relatively small expense, and then encouraged an interdisciplinary dissemination of ideas. In short, one gets the impression that this meeting had little, if any, glamour. It was hard work for the participants — some 41 in all — who were not, one presumes, bombarded with advance publicity containing, among other things, brochures of large-breasted ladies lying under a blue sky in some far-away place, nor were they likely to receive on arrival in London expensive brief-cases, pens, powder puffs, writing pads, and invitations to banquets and booze-ups masquerading under the euphemism of "reception".

So specialists from different disciplines sat down at the same table to discuss their mutual interests and problems. And was this a success? Peter Beaconsfield admits that it was not — "it did not seem unreasonable . . . to expect that the specialists invited to participate would do so freely . . . In their own laboratories and departments, they all talk quite freely, ranging well beyond the bounds of their particular discipline. At the conference table they did not."

The scientists appeared to be less willing than the clinicians to think "horizontally across the board". I do not find this surprising. It is difficult enough, and sometimes impossible, to get specialists in the same discipline to exchange ideas freely. A curious feature of maturity (or is it really immaturity?) is the fear of admitting ignorance. This is, of course, understandable — there is little mercy in academe, and honesty can easily be mistaken for or contrived as stupidity. Perhaps Dr. Beaconsfield sums it all up rather well when he says "polymaths no longer really exist since our educational system eliminates the possibility somewhere in the middle of the secondary school course, and our culture has made gods of the super specialists."

To end on that despondent note would be unfair to the organisers and participants of this meeting. They have succeeded in resurrecting an unique forum for exchange of scientific ideas, and if it was not successful at its first attempt this is no reason why it should not be tried again — and again. We must endeavour to make our meetings places of learning rather than platforms for pontification and presentation of stale research. I believe that the editors are right in asking science and medicine to look again at the placenta, and they must be encouraged to see that Lord Janner has brought their book to the attention of the House of Lords in the second reading of the Laboratory Animals Protection Bill that seeks to ensure that animal experimentation is responsibly controlled.

*PLACENTA — A Neglected Experimental Animal. Eds. Peter Beaconsfield and Claude Villee; Pergamon Press, 1979. pp. 442; £11, soft cover.