

# CURRENT SCIENCE

Volume 65 Number 8

25 October 1993

## NEWS

### Europe meets the Vancouver group

#### Background

The Vancouver Group is an unofficial group of medical editors who met in Vancouver in 1978 and published 'Uniform requirements for manuscripts submitted to biomedical journals', of which there have been later versions. The Group has been influential and has issued guidelines and opinions on a number of matters concerning medical journals. The uniform requirements, known as the Vancouver Style, have been most successful and a software programme for writing in the 'Vancouver Editorial Style' is available from Pergamon (Manuscript Manager). Collaborating journals do not necessarily have to publish in the Vancouver Style, editors simply agreeing to consider any paper submitted in that style. Although many of the journals are from the Americans, there are many from other parts of the world, e.g. Australia, India, Ireland, Norway, Nigeria, UK and World Health Organization (WHO).

The other uniform style is that of the Council of Biological Editors (CBE) from the USA, for which also there is a Pergamon software programme. Some biomedical journals use the CBE Style, e.g. *Indian Pediatrics*, *Cancer Bulletin*, etc. The Vancouver Style is accepted by more than 500 journals, almost all of which are clinical, whereas the CBE Style is used by just over 200 journals, most of them American biological journals.

There is another group of editors, the European Association of Science Editors

(EASE), which includes writers and teachers, and members from Africa, Japan, etc. Stephan Lock, a past editor of the *British Medical Journal* has been a leading figure in both the Vancouver Group and EASE. He also took a team from the *BMJ* to India to give practical advice and help to editors of Indian medical journals; the proceedings were published there as a small book. Some editors of endocrinology and pharmacology journals meet informally.

Although there have been many books on how to write for scientific and medical journals, it is only recently that a book on editing a journal has become widely known: the ISI Press published *How to Edit a Scientific Journal* by C. T. Bishop in 1984. Since then a number of computer programmes have been published to ease the office chores. The *BMJ* and EASE organize an annual one-day workshop for editors. There have been other workshops and discussions for new editors to improve their skills. A comparison of recent issues of the three major international weeklies of medicine will show how professional, wide-ranging and interesting these journals are (*BMJ*, *Lancet* and *New England Journal of Medicine*).

Several major issues, especially in the biomedical sciences, have been the subject of meetings, articles, talks and pronouncements. Fraud and misconduct have been exposed, the growth of the literature deplored and statistical examination of submitted papers by special referees introduced. Journals like the *BMJ* now require a letter signed by each author, in which authors list their part in the study and state that the paper has not been submitted to another journal.

For many years refereeing has led to an undercurrent of discontent among authors. Some of the Vancouver Group are now interested in refereeing and the Second International Congress on Peer Review in Biomedical Publications will be held in Chicago in September 1993. In all these activities, the editors of medical journals have played a major part, whereas the editors of British bioscience journals seem to have been hibernating.

The meeting was attended by 170 people, the majority of whom were editors of medical journals.

*Every editor should have a pimp or a brother to look up to.*

— The editor of *Annals of Neurology*

*All editors are failed authors.*

— Samuel Johnson

This author has often wondered what the members of Editorial Boards of journals actually do. Many international journals have long lists of eminent scientists from all over the world and some scientists sit on many boards. Do they ever meet? What are their duties?

S. Bombardieri, editor of *Clinical and Experimental Rheumatology*, spoke on 'developing a journal'. The journal was founded in Italy about 1980 with an international board of 80, since increased to 88. Each had to submit one paper and to undertake the timely review of papers. An annual report is sent to all. At first, all papers were peer-reviewed by two members of the editorial board or by referees chosen from the first or last authors of papers on the same subject

A report on a meeting of European medical editors, organized by the *Lancet* and *British Medical Journal*, 14 January 1993, London. Wyatt's report is reproduced by kind permission of The British Library.

Members of the board and referees were chosen from countries other than the country of origin of the paper under review. Only half the papers generated agreement by the referees. From 1986 each paper has been reviewed by three referees, with 92% reaching a settled decision. In the same year, 1986, the journal was produced and published in-house with their own computer. Suitable software was developed by the staff. The advantages of in-house publishing included building a database of potential subscribers such as institutions, agencies and individuals. The scoring of performance by referees is now routine.

Bob and Suzanne Fletcher, editors of *Annals of Internal Medicine*, considered referees the advisers or consultants to the editors. They should advise how a manuscript should be improved and provide the author with advice and comments. Referees should be quick, thorough, courteous, fair, knowledgeable and constructive. They should assess the importance of the work and comment on the methods and presentation. Two reviewers for each paper should complement each other, one for method, the other for content. Reviewers are encouraged to sign their comments for authors. It was important to provide authors with a check list of things to be done before resubmission. An experiment by the editors attempted to find good reviewers by sending papers with authors' identification removed for review and scoring the reviews received. Good reviewers were under 40 years, from well-known institutions and known to the editor. This group achieved 85% good reviews with blinded papers. The time they said they spent on reviewing the papers was longer than that claimed by bad reviewers. Reviewers with none of these attributes achieved less than 10% good reviews. Gender, rank and experience of administration, grants, journals and publications did not correlate with good reviews.

Karen Hunter of Elsevier discussed 'the end of the paper journal'. Elsevier is a major publisher with over 1100 journals and the great *Excerpta Medica* database. Costs have risen in spite of advertising revenue and journal subscriptions have fallen, e.g. *Biochim. Biophys. Acta (BBA)* subscriptions have fallen by 30% over the last 15 years. This is in spite of the growth of medical sciences and the number of institutions of higher education. Elsevier is planning a database of the complete

contents of their journals. The CARL system is already on-line in 12 campuses night and day. The table of contents of 12,000 journals can be retrieved and the system will eventually contain full texts. A major difficulty is that there is no advertising revenue from on-line or electronic journals. A new system CD Plus, in the USA, enables the reader to search for references or abstracts and to look at the full text. Elsevier believes that printed journals will co-exist with electronic forms, but journals may not be printed in Amsterdam and posted. Instead, they may be printed on demand in the library.

At the two discussion sessions, the different groups were mixed. The morning session asked 'What should be on the Vancouver Group agenda?'. Suggested topics for discussion by the groups were:

- What should be the mission of the Vancouver Group?
- Should it formalize itself more?
- Who should its members be?
- Should it aim its statements at authors, editors, or others?
- Should it attempt to develop an ethical code for editors?
- Are there specific ethical issues that should be covered?
- What practical issues - like guidance on submission of electronic material should the group consider?

In the afternoon, the groups discussed 'Should European medical editors join together?'

Although these were useful discussions and many views were aired, the reported results were perhaps disappointing. There was no enthusiasm for a European Group; membership of EASE was thought to be a good thing. Few journals could afford to send an editor each year to an exotic resort for discussions. The members of the Vancouver Group who can afford the trips are from weekly or frequent-issue general journals with large advertising revenues and large sales. Suggested agenda included:

- Conflict of interests.
- Ethics for editors.
- Recognition of reviewing. Some suggestions were an annual list in the journals thanking the reviewers by name, a letter to each reviewer and letters to the Heads of Departments.
- Ethical issues of misconduct and fraud. This writer thinks that much undergraduate practical work encourages fraud.

Problems of non-English-language journals.

## Conclusions

Various statements of the Vancouver Group have been published in several journals, but a full booklet is to be published in the spring of 1993. It will be the *Uniform Requirements for Manuscripts Submitted to Biomedical Journals (4th edn) and Supplemental Statements from the International Committee of Medical Journal Editors 1993*. The supplemental statements are:

- Retraction of research findings.
- Editorial freedom and integrity.
- Confidentiality.
- The role of the correspondence column.
- Competing manuscripts based on the same study.
- Order of authorship.
- Guidelines for the protection of patients' right to anonymity.
- Electronic publication.
- Definition of a peer-reviewed journal.

There are two or more minor statements to be added to this list after they have been adopted in March 1993. There will also be selected citations and journal abbreviations.

The International Committee of Medical Journal Editors comprises representatives of 10 journals and appears to be a synonym for the Vancouver Group. The members change and at one time there were 13 of them. The offices are at the *Annals of Internal Medicine*, Independence Mall West, Sixth Street at Race, Philadelphia, PA 19106-1572, USA.

Biomedical journals are able to obtain far greater advertising than many scientific journals, but the power of the advertisers can sometimes affect editorial decisions (e.g. the German manufacturers of thalidomide were able to block publication of a paper in a German medical journal). The editors of international journals may be able to resist pressure, but small, specialist journals or journals in developing countries may be vulnerable.

Many issues are now debated in the weekly general medical journals and in *European Science Editing*. There are many moves towards improving the standards of peer-review and authors are beginning to ask for uniform standards for editors (e.g. Dewey, M. E. Authors have rights too. *BMJ*, 1993, 306, 318-320).

British biological journals should be looking at similar problems. Editors of

biological journals with low sales and advertising revenues could probably benefit from the experience, the workshops and the vigour of their colleagues in the biomedical sciences.

#### Appendix: Memorandum submitted by Wyatt

##### *Uniform requirements for manuscripts submitted to biomedical journals*

The following changes would help the readers of journals:

#### 1. References

(i) *Theses*. Theses are difficult to locate and consult. The citation should have the following information if possible: degree

(MS, MD, etc.), faculty, reference in *Dissertation Abstracts*.

(ii) *Books, conference proceedings and organization reports*. Publication details for these should contain greater detail for the more obscure organizations, e.g. post/zip code at the least, address in the case of obscure publishers or if privately printed (and ISSN code?).

#### 2. Correspondence column

The contents page of each issue should contain the names of authors and the title of all letters in that issue. Many journals simply have a section 'Letters' with no contents list. Any reader trying to find a particular letter has to go through the

pages. Readers waste much time with unbound library copies and personal copies.

Reports on meetings etc. should also give the name of the meeting reviewed.

*Acknowledgement*. I am very grateful to Ms Jane Smith, Deputy Editor of the *BMJ*, for her help.

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## RESEARCH NEWS

# Bowls, boxes and ladders – New designs in hydrocarbon architecture

J. Chandrasekhar

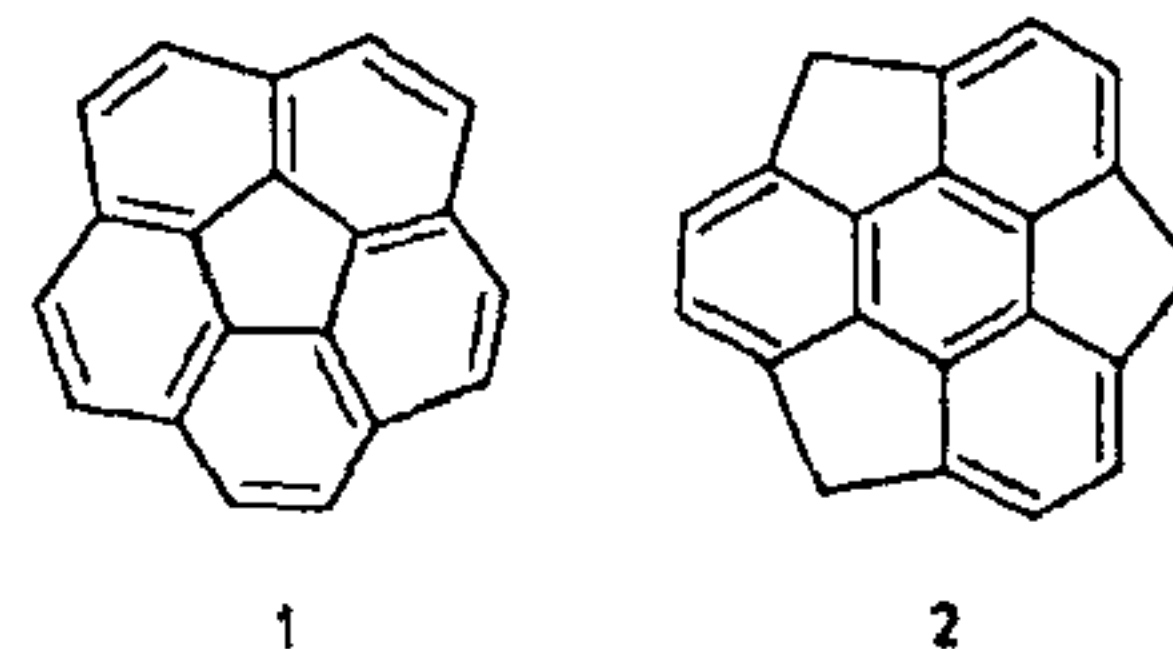
It is possible to construct a remarkably wide variety of organic frameworks even while strictly adhering to tetravalency of carbon and without seriously deviating from van't Hoff structural rules<sup>1</sup>. Some of the more aesthetically pleasing arrangements have caught the imagination and challenged the professional skills of synthetic chemists. The successes involving cubane and related prismanes, tetrahedrane (albeit as a derivative), dodecahedrane, etc., represent some of the high watermarks. Pursuit of such goals, besides being intrinsically interesting, provides additional rewards along the way. The very effort is associated with the development of new methodologies, reagents, structures, and hence in new chemistry. The recent achievements of Goverdhan Mehta and coworkers (University of Hyderabad) in three different fronts exemplify the merits of reaching for the stars. The lessons learnt and strategies perfected from years of toil

with complex cage molecules have resulted in remarkable successes.

No cage structure has generated as much interest as buckminsterfullerene, C<sub>60</sub>. But it is also a fact that many organic chemists have sulked amidst the general excitement. The main reason is that the molecule has somehow been made, but not 'synthesized'. Effective though the preparation of C<sub>60</sub> from graphite rods may be, it lacks the art and logic associated with conventional organic syntheses. There has been talk of constructing C<sub>60</sub> and other fullerenes using systematic methodology. While such approaches may not be optimal for making C<sub>60</sub>, the studies are expected to lead to valuable insights on the chemistry of intermediate structures which link planar aromatics and three-dimensional fullerenes.

By deconstructing C<sub>60</sub>, with its network of pentagons and hexagons, numerous beautiful subunits can be visualized. The molecule which gained prominence as a

result of such an analysis is corannulene, C<sub>20</sub>H<sub>10</sub>, with a pentagon surrounded by five hexagons (1). The molecule has been



shown to have a bowl shape and inversion via the planar geometry has been studied using dynamic NMR<sup>2</sup>. An alternative building block for C<sub>60</sub>, consisting of a central hexagon surrounded by alternating pentagons and hexagons, has now been considered<sup>3</sup>. The presence of pentagons would ensure the curling up of the rings. Models reveal that the molecule is shaped like a flower with the rings forming the petals. With a typical organic