



From the President

Chemical instrumentation and interpretation

In the middle of March I attended the exhibition and seminars organised by Science Industry Australia in Sydney. The exhibition was supported by many companies and organisations (including the NSW Branch of the RACI) and displayed a most impressive variety of instruments, equipment and chemicals for use in today's laboratories. It was great to meet again with a number of long-time friends among the technical representatives, many of whom are RACI members, and other visitors. These representatives and companies provide a major and important service to the chemical (and other) laboratories, not only in the goods immediately provided but also in instrumental servicing/maintenance and technical support. I would go so far as to say that laboratories as we now know them could not function without a close, ongoing, working relationship with their instrument providers and I congratulate the organisers of this valuable event.

More and more the good science that our laboratories are expected to produce is predicated on ever-increasing sophistication and capabilities of instrumentation. (This assumes the validation, calibration, accuracy and, not least, appropriate quality reference standards.) In the majority of instances, the actual use of the instruments is becoming easier, although confirmation of the validity and interpretation of results may require the interface of very skilled, highly educated and experienced chemists.

There is continued and considerable concern being expressed about the ability of our tertiary institutions to fund chemistry courses appropriately, especially the practical components. In my years of studies in the 1960s the practical classes comprised mainly wet chemistry experiments, and student use of sophisticated instrumentation was almost unknown, with no computers associated with them. Upon reflection, although not so apparent at the time to me, the experiments were designed so that simultaneously there was illustration of specific chemistry principles, development of good laboratory technique and development of skills of reportage and interpretation of data. Nowadays, laboratories, especially analytical, function with highly computerised instrumental systems and brand-associated software. Immediate working knowledge of such systems is often required by employers of new employees. Instruments can be set up and made to function by trained personnel without an intimate knowledge of either the principles of the chemistry or of the instrument involved. In a larger

laboratory with a synergistic variety of education and experience this may well be all that is required of newer personnel.

To what extent, if any, should the institutions re-define their teaching from those illustrating principles to making graduates more detailed functioning instrumental experts? Even if this expertise is desired, is the money available to provide up-to-date high quality instruments at undergraduate level? I would be interested in contributions from employers and laboratory employment agencies on these questions.

This previous description assumes that chemists working in Australia are 'home-grown'. This is not the case: as I mentioned in my March column the rate of immigration is increasing. Although I do not have actual figures I know that many laboratory chemists are educated overseas and are working in Australia on both temporary and permanent bases. I am sure that members of the RACI Policy Committee, PHODs and the Qualifications Committee would value comparisons of Australian and overseas course practical content from overseas trained chemists. (Please email me if you would like to contribute.)

Salary survey

As a result of my January–February column I have had some correspondence questioning the accuracy of the quoted salary survey data. Pieter Scheelings of the RACI Employment and Emoluments Committee advises me of similar correspondence to him from time to time.

Such data is truly representative of chemists if there is a strong response to the annual questionnaire from a wide range of members. I am not aware of any other direct, national survey with which to compare our survey. Consequently I would ask all members to take the time to fill out the 2004 questionnaire, which will accompany the corporate membership renewals, so that we have representative data.

Board election

I urge all corporate members to vote in the upcoming Board election. By the time you read this, nominations will have closed and I trust that there will be numerous candidates from whom to choose. The degree of voting will give a direct signal regarding the 'health' of the RACI and enthusiasm of its membership.