

tervention group and 37 in the control group. All of the women continued to receive whatever medical treatments their doctors recommended. The women in the support group met weekly for one year. They were taught self-hypnosis for pain control, they could share whatever they wished during the meetings, were encouraged to communicate with group members outside of the meetings, and one of the group leaders was a woman who had breast cancer that was in remission. The ten-year followup showed that all of the women in the control group died, and that their average length of survival from the beginning of the study was 18.9 months (SD = 10.8). Three of the women in the support group were still alive ten years later. The 47 women in the support group who died had lived an average 36.6 months (SD = 37.6) from the beginning of the study. This work has been replicated and shows that a psychotherapy support group can have a significant effect on the longevity and quality of life of cancer patients. The important question here, given the evidence, is the following: "Why does not every oncologist prescribe group psychotherapy for his/her patients?" These support groups are probably *more* effective than any of the "standard" treatments for fourth-stage metastatic breast cancer.

Although there is little evidence for special diets and herbs for helping people with cancer and cardiovascular disease, there is a great deal of evidence that Dr. Dean Ornish's regimen of low-fat diets, support groups, exercise, and meditation² has a profound effect on the course of cardiovascular disease. Please note that Dr. Ornish does not recommend one diet, but a total lifestyle change in several areas. Ornish's work has stood the test of time, even though scoffers have pushed it aside as one of those alternative things. Again, the question is as follows: "Why doesn't every cardiologist encourage his/her patients to follow this regimen?"

My new book³ cites the scientific evidence for mind/body interactions for healing, and emphasizes a multimodal approach to working with people who have life-challenging diseases. An important question is this: "How much does the placebo effect contribute to *both* traditional and alternative medicine?" A major component of all double-blind studies is to separate out the ever-present placebo effect from that of the "active" ingredient or treatment. The placebo effect is always significant, and there is a vast literature on it. (A summary of the placebo effect is in Chapter 4 of Reference 3.) Any alternative work, of course, should always be done in *cooperation* with medical doctors. As scientists, we need to be skeptical and look for scientific proof—such proof is available for the two "alternative" approaches described above.

References

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Sincerely yours,

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Reports from Commissions and Division Committees

Physical Chemistry Division Committee (I.0)

Summary of Minutes of Division Committee Meeting at IUPAC General Assembly, Berlin, Germany, 7–11 August 1999

The Physical Chemistry Division Committee (PCDC) devoted much time to discussing its future structure and function. The restructuring of IUPAC, with the abolishment of Commissions, will give the Division Committee a drastically changed role with much increased

responsibility and work. The Division Committee will in the future be responsible for project generation and evaluation of proposals, followup and finalization of projects, and assessment of final results. Recruitment of Committee members and distribution of work among the members will be crucial for the work of the Division under the new organization. The number of projects that will be carried will be reduced when the Commissions disappear. It was suggested that the present structure of technique-oriented Commissions be replaced by one based on areas of physical chemistry, focusing on areas where IUPAC could contribute significantly. No

decisions on these matters were made in Berlin. The newly elected Division Committee is scheduled to meet around the beginning of March 2000 to continue the discussions and make decisions that will determine how the Physical Chemistry Division will function in the future.

The status of the projects of the Division is good. Of the 55 projects listed in the *IUPAC Handbook 1998–1999*, 16 had been completed by 1999, 4 had been closed, and 30 were expected to be completed by 2001, leaving only 5 that may need to continue (after being reconsidered) under the new organization. New projects have been proposed, and the Division Committee will discuss them during the spring meeting and decide how these proposals should be managed. The question “Why IUPAC?” will be important when discussing future projects.

Gerd Olofsson

Secretary, IUPAC Physical Chemistry Division Committee I.0

Commission on Molecular Structure and Spectroscopy (I.5)

Summary of Minutes of Commission Meeting at IUPAC General Assembly, Berlin, Germany, 8–10 August 1999

Thirteen members of the Commission on Molecular Structure and Spectroscopy (I.5), including national representatives and observers, met for three days during the 40th General Assembly at die Freie Universität, Berlin, Dahlem. Two new titular members, Profs. R. McDowell and N. Hirota, and two new associate members, Profs. P. v. R. Schleyer and Quing-Shi Zhu, were introduced.

Four projects were completed, and three of these were published in *Pure and Applied Chemistry (PAC)*: J. E. Bertie, Specification of Components, Methods, and Parameters in Fourier Transform Spectroscopy by Michelson and Related Interferometers, *PAC*, **70**, 2039–2045 (1998), which will also be published in the *Australian Journal of Chemistry*; R. K. Harris, J. Kowalewski, and S. Cabral de Menezes, Parameters and Symbols for Use in Nuclear Magnetic Resonance, *PAC*, **69**, 2489–2495 (1997), which has also been published in two journals devoted to NMR spectroscopy; and J. E. Boggs, Guidelines for the Presentation of Methodological Choices in the Publication of Computational Results, Part A. Ab Initio Electronic Structure Calculations, *PAC*, **70**, 1015–1018 (1998). One article was approved by the Commission: J. J. P. Stewart, Guidelines for the Presentation of Methodological Choices in the Publication of Computational Results, B. Semiempirical Electronic Structure Calculations, to

be submitted to *PAC*. The following book has been published: *Nonlinear Spectroscopy for Molecular Structure Determination* (editors: R. W. Field, E. Hirota, J. P. Maier, and S. Tsuchiya), 276 pages, Blackwell Science, Oxford, 1998.

Other projects are close to completion: R. S. McDowell, J. E. Bertie, P. R. Bunker, J.-M. H. Flaud, J. T. Hougen, P. Rosmus, J. K. G. Watson, and B. P. Winnewisser, “Notations and Conventions in Molecular Spectroscopy: Part 4. Rotation-Vibration Spectroscopy”, which, after minor changes, will be submitted to *PAC*; R. K. Harris, E. Becker, W. Bremser, S. Cabral de Menezes, R. Goodfellow, and P. Granger, “Provisional Recommendations for NMR Nomenclature, Nuclear Spin Properties, and Conventions for Chemical Shifts”, which is nearly finished and will be submitted to *PAC* and possibly to other NMR journals; and R. Janoschek, “The Computation of Experimental Structure and Properties of Small Molecules by Ab Initio Calculations”, which is a comprehensive work of about 100 pages that will, after completion, be submitted to a specialized journal.

An extensive report of about 220 pages on high-pressure spectroscopy by A. M. Heyns, D. M. Adams, W. B. Holzapfel, M. N. Nicol, and Ph. Pruzan, *Spectroscopy under Extreme Conditions of Pressure and Temperature*, will, it is hoped, be completed in the near future, possibly to be published as a book. A preliminary report by M. Terazima and N. Hirota, *Quantities, Terminology, and Symbols in Photothermal and Related Spectroscopies*, was presented; it is hoped that the work will be completed in 2001. The project of J. E. Boggs, “Guidelines for the Presentation of Methodological Choices in the Publication of Computational Results, C. Molecular Mechanics Calculations”, has been delayed because of slow cooperation with Commission I.7.

Joint meetings were held between Commission I.5 and Commissions V.4 and I.1. With Commission V.4, the pending projects of each commission were reported, and various projects of common interest were discussed. Additions and alterations that should be included in the next edition of the “Green Book” (*Quantities, Units, and Symbols in Physical Chemistry*) were discussed with Commission I.1.

It is a general belief among the members of Commission I.5 that the new organization of IUPAC after 2001 will have a negative influence on the future scientific activity of IUPAC, leading to more political and less scientific activity.

The chairman, John E. Bertie, thanked the members for their contributions to the work of Commission I.5.

Peter Klæboe

Secretary, IUPAC Commission on Molecular Structure and Spectroscopy I.5