

# **Association of Consulting Chemists & Chemical Engineers**Volume 11, Number 3 & 4 March/April 1999

#### SETTING ACC&CE GOALS

The after-dinner program at the March 23 dinner meeting was an idea-generating event. Members were asked to concentrate on things they thought would improve ACC&CE and their own consulting practices next year and in years beyond. Participation was keen during two different guided sessions.

In the first session Vice President Meyer Rosen divided up the members in small "break-out" groups. Each group discussed the question "Who are we as an Association, and what are our goals and purpose for the new Millennium?" and appointed a spokesman to report their findings. All the groups then came together to hear what each group chose as the one or two best goals for the association. The ideas were recorded and analyzed. The best ideas from this session, taken together, are the goals to work on for improving the association. They can be summarized under seven headings:

## MILLENNIUM GOALS

- 1. Better marketing of the availability of members' services
- 2. Improved communications to members and to potential clients
- 3. Changing the membership requirements
- 4. Developing better government affiliations
- 5. Developing larger projects by combining different members' expertise
- 6. Having teams of members make presentations to clients at large firms
- 7. Better presentation of a member's abilities to a potential client

This part of the meeting demonstrated one way to generate and evaluate new ideas. It is also a good team building exercise.

Next came a "controlled brainstorming" session to consider "What Benefits Can we Offer Prospective Members?". Bill Swartz, Marketing Committee chairman, then described this technique, a modification of the original approach pioneered by Alex Osborne in the mid-twentieth century. This approach uses round robin idea gathering--a group takes a few minutes to individually think about the subject and jot down starting ideas, then rapidly generates as many ideas as it can. One of the rules for controlled brainstorming is that the group stays away from any negative comments or instant evaluations of ideas. This is critical to the success of the method. New ideas come faster when the mood is positive and lengthening the list is the prime goal. With coaching

from Swartz, the group was able to quickly take new ideas and build more on them. It didn't take long to collect 37 individual ideas.

Swartz then demonstrated eliminating duplications, applying binary ranking and then grouping the ideas into similar or related sets in decreasing order of frequency. This process reduced the 37 ideas to six groups as follows:

#### IMPROVED BENEFITS OF MEMBERSHIP

- 1. Marketing
- 2. Networking
- 3. Prestige
- 4. Mentoring and training
- 5. Skill development and education
- 6. Future possibilities (not ranked)

The ideas generated in the two demonstrations provide a strong basis for future discussions by the membership and Council as they prepare plans for the future. Immediate use will be made of the list of membership benefits we can offer potential new members in a new brochure being planned by the Marketing Committee.

#### IDEA GENERATION WORKSHOPS AS AN OPPORTUNITY FOR CONSULTANTS

New ideas are one of the forces driving American business. It is the need for new ideas and new approaches that leads many clients to turn to consultants. Many of the best ideas will actually be found in the client's organization. This represents an opportunity for ACC&CE;members to offer group idea generation as an important service to a client. Such an experience may lead to more assignments.

#### **COLD FUSION FOR REAL**

Nature magazine reported on April 9 that physicists at Lawrence Livermore National Laboratory in California have reported laboratory-scale nuclear fusion in laboratory experiments where they excited clusters of deuterium atoms with small but powerful lasers. Atomic clusters constitute a form of matter intermediate between molecules and bulk solids. Researchers have been investigating how clusters interact with light. Recent studies on the light-induced ionization of clusters by high-intensity femtosecond laser pulses show that these interactions can be extremely energetic, resulting in plasmas sufficiently hot and dense for fusion to occur.

Clusters heated with a compact, high-repetition table-top laser yielded about 100,000 fusion neutrons per joule of incident laser energy, comparable with the efficiency of large-scale laser fusion experiments.

This sounds a lot more credible than continuing stories of laboratories around the world still putting money into "cold fusion", the 10 year-old idea of nuclear energy from electrolysis of deuterium-rich water using palladium electrodes. These accounts are non-professional and don't appear in the

reviewed journals. There seems to be an active society of "believers" just the same. Internet searches have uncovered at least two periodicals specializing in articles and discussions of "cold fusion". They are "Infinite Energy" magazine and "Cold Fusion Times".

#### FEED THE FISHES

ASTAXANTHIN is a carotenoid compound of nature, found in abundance in certain strains of algae. A surpisingly large amount of this compound -- about \$175 million worth -- is manufactured, purified and sold in many forms throughout the world. Roche of Switzerland is by far the leading supplier, but other companies are trying to enter the market.

The reason may be that, like its close molecular relative, carotene, it has beneficial effects in nutrition and biology. Indeed, there are many purveyors of pills, capsules and powders promising all kinds of wonders for astaxanthine as an antioxidant and modifier of body chemistry. This seems to be true not only in the human, but is widely known in food production of fish and shellfish by aquaculture. A trip to your local fish store will tell you of the steady increase in farm-raised fish as wild stocks are diminishing.

Astaxanthine is a red, water-insoluble pigment that wild fish consume in the algae they eat and, when included in the rations of farm-raised salmon or shrimp, adds the characteristic color to the flesh of the fish. It seems to promote the health and survival of shrimps and fish in aquaculture. It has been suggested that eating salmon is a healthy act because you get not only the omega-3 fatty acids but also the Astaxanthine.

Mama said "Eat your Carrots!" Mamas today should be pushing salmon, too.

#### MORE ON EXPERT TESTIMONY

Here is more on the status of experts in courts of law; it updates the cover story in the November/December 1998 issue. The U.S. Supreme Court ruled in the case Kumho Tire Co v. Carmichael that judges must take a flexible approach on what may be brought as expert testimony. In the court's opinion, the witness's qualifications and methods must be taken into account by a judge, whether the subject is engineering, science, handwriting analysis, economics or any other topic. This is further affirmation that barring "junk science" is the judge's responsibility.

# INTERNET SITES OF INTEREST

This prolific site offers a smorgasbord of chemistry-related options: a Library of leading chemical journals; databases containing abstracts, chemical structures, patents, websites; The Alchemist - ChemWeb's magazine for the latest chemistry news; Shopping Mall containing software, equipment, and books; Worldwide Job Exchange with hundreds of job offers and jobs wanted; Conference Diary finds the latest events and conferences; ChemDex Plus - searchable and reviewed database of chemistry resources on the Web and ACD - Available Chemicals Directory from MDL Information Systems, Inc. HTTP://CHEMWEB.COM

## Aerial Views of Your Choice

You can use the internet to find and download photos of many places on the globe. A site called Terraserver will find and display these pictures, much in the fashion of the popular road map services. One can even order (for a price) a glossy photograph of the original. The detail of a download to a PC is not very fine, but the editor was able to identify his own home in Summit, New Jersey. The opening page of the site shows a global map with green areas showing which localities are available. HTTP://WWW.TERRASERVER.COM

#### HAVE TALK - WILL TRAVEL

The name of an ACC&CE member, Charles Garber (# 533) turned up in a recent copy of "Chemical and Engineering News". He was listed as one of the American Chemical Society tour speakers. He had been to two local sections meetings where he spoke from his experiences as chemical engineer and head of his own research and testing firm. He traveled to Rolla and Springfield in Missouri, speaking of using microscopy to study the effects of moisturizers on human skin or how to start and grow a chemical laboratory business alternatively about characterize polymer coatings using electron optics.

When interviewed, Garber said that he has been doing this over the years, not only to give something back to chemical education, but also to keep him in touch with life in various parts of the country far from his home base in West Chester, Pennsylvania. He also feels that "all visibility is good visibility" and sometimes his appearances bring new business. "Structure Probe" is the name of his company. Look for his ad in this edition.

If you want to see an attractive web site, go to Structure Probe's own (www.2spi.com). See the dancing flames, a collection of helpful internet links, as well as lots of information on the goods and services provided by the company. These include the following: sales of equipment and supplies for microscopy laboratories, products for teaching applications, laboratory services in microscopy and microanalysis and consulting services on microscopy. Maybe it's going too far for most member consultants, but see how Garber is geared for NAFTA. The site also includes links to Structure Probe's agents in Canada and Mexico.

## **GLOW-IN-THE-DARK FOOD**

Bruce Bryan, of Beverly Hills (of course), wants you to see your birthday cake after you blow out the candles in a dark room. He was granted US Patent 5,876,995 for "Bioluminescent Novelty Items". Food is only one of the applications of his invention, described in his patent as designed for "entertainment, recreation and amusement".

This information was found through the internet starting at www.uspto.gov. A Boolean search engine is provided. Entering the search phrase "bioluminesce and food" brings one-line references to 161 patents since 1976, one of which is Bryan's. The rest of them are mostly biochemical and pharmachemical inventions not directly related to food, although among them are analytical applications such as detecting pesticides through luminescent agents.

