

The Packed Column

American Institute of Chemical Engineers - Upper Midwest Section

September 2004

CHAIR'S CORNER

by Ryan O'Connor

Summer has gone too fast, as always. With September comes leaves changing color, back to school for the kids, and the return of local AIChE monthly meetings—plan on joining us for one of them!

Our Mission & Vision

I want to welcome all the new officers to the 2004–2005 AIChE Upper Midwest Board (all are listed on page 6). You are all important to our mission, as is every single member. Our mission statement continues to read:

“To provide opportunities for chemical engineers in traditional and nontraditional fields for enhanced professional and personal growth.”

We held a strategy & planning meeting on August 22. We discussed the partnerships we'd like to grow this year, ideas for monthly meetings, and new initiatives. Career development is a focus for our section. We will work to improve our web site (www.aichelocal.org/tc) in this area, with resources to help you professionally and personally. Later in this newsletter, check out *The AIChE Way* of career management for some great advice from AIChE Career Services. Take charge of your career!

Strategic Partnerships

After a year of discussions between working groups from the national AIChE and ACS boards, the two societies have agreed to pursue cooperative programs in areas of mutual interest. These areas include government relations, sustainability, green chemistry, biological engineering, separations, catalysis, chemical safety and health, K–12 outreach, minority and women's issues, and meeting programming. At the local level, we will seek opportunities for co-sponsored activities with ACS, Minnesota Chapter and leverage each other for the benefit of both organizations. In fact, our next meeting on September 21 is co-sponsored with ACS (see p. 2)!

AIChE and ASME (American Society of Mechanical Engineers) have announced an agreement for ASME to deliver the Institute's continuing-education public seminars, on-site courses, and e-learning CD-ROMs. AIChE President Bill Byers said, “This partnership strengthens the natural collaboration between chemical and mechanical engineers in emerging areas like biological engineering, nanotechnology, as well as core areas of interest like heat exchange and project management.” Members of both organizations will benefit from membership discounts in both AIChE and ASME courses, as well as extensive course site locations. Contact 1-800-843-2763 or visit www.asme.org/education/cei.htm to sign up or request more information on ASME/AIChE education courses.

Extending Our Influence

In case you are not sure about the exact geographic boundaries of the Upper Midwest Section, our membership is comprised of the entire states of Minnesota and North Dakota; Minnehaha County of South Dakota; and Ashland, Barrow, Bayfield, Buffalo, Burnett, Chippewa, Clark, Douglas, Dunn, Eau Claire, Pepin, Pierce, Polk, Rush, Saint Croix, Sawyer, Taylor, Trempealeau, and Washburn Counties of Wisconsin.

Clearly, we have traditionally been most active in the Minneapolis–St. Paul region. Although most members do reside in the Twin Cities and extended metro area, there are many of you outside this area and we need to find ways to help you get more involved. A Duluth meeting is being planned this fall, for the benefit of our Northern Minnesota members and anyone else up for a weekend trip to Duluth in the fall. Stay tuned.

Let Us Help You

Please, let me know if there is something that our local section can do to help you achieve your goals. What type of meeting or tour would appeal to you? Would there be interest in a meeting in your area? Contact me at 952-742-0455 or ryan_oconnor@cargilldow.com and let's talk. Remind your co-workers that our dues are only \$12 annually. Invite them to a meeting!

SEPTEMBER MEETING

Joint Meeting with ACS

Speaker: Andy Ouderkirk of 3M

“Advances in High Performance Polymeric Interference Mirrors and Polarizers”

Tuesday, September 21st, 2004

Meeting Location:

Christensen Center at Augsburg College
2211 Riverside Ave., Minneapolis

Agenda:

6:00–7:00 p.m. Dinner/Social/Posters - East Commons

7:00–8:00 p.m. Lecture - Minneapolis Room

Common polymers can have a higher birefringence than even exotic inorganic materials. This unique optical property is being used to create new classes of interference mirrors that include the most reflective film available, all-angle reflective polarizers, and highly selective wavelength separation filters. These are the first interference mirrors developed that do not have a Brewster angle—a new discovery that allows mirrors to be designed that have high reflectivity at all angles. The polymeric mirrors are made from hundreds of simultaneously generated layers of different polymers, each polymer layer having a thickness designed to be in the range of 15 to 200 nm, and each layer being accurately controlled in thickness to reflect specific wavelengths of light. The resulting mirrors are being introduced in applications ranging from energy efficient windshields and enhanced brightness LCD displays to solar light pipes, security films, and credit cards. The advance in polymeric interference mirrors and the impact in new products was recognized by this year's ACS Creative Invention Award.

Reservations are Required for Dinner. Please reply to Mark Arlinghaus at Mark.Arlinghaus@genmills.com or call 763-764-5808 **no later than September 20th.**

Cost: Dinner is \$10, \$5 for Students

Place an ad here and get results! Reach over 600 chemical engineers!

**Nathan Johnson, doc_curtis@rocketmail.com
651-733-8799**

OCTOBER MEETING

Tour of Boston Scientific Tuesday, October 26, 2004

Meeting Location:
Boston Scientific, Maple Grove, MN

Agenda:

5:30 p.m. Tour of stents, top assembly, and extrusion areas

6:30 p.m. Dinner provided by Boston Scientific in the Maple Grove facility (limit to first 50 people)

Company Background

Boston Scientific is a worldwide developer, manufacturer and marketer of medical devices with approximately 15,000 employees and revenue of \$3.5 billion in 2003. For more than 25 years, Boston Scientific has advanced the practice of less-invasive medicine by providing a broad and deep portfolio of innovative products, technologies and services across a wide range of medical specialties. The Company's products help physicians and other medical professionals improve their patients' quality of life by providing alternatives to surgery. Website at www.bostonscientific.com.

Boston Scientific - Maple Grove, MN

A global leader with a long history of innovation in the diagnosis and treatment of cardiovascular disease, this Boston Scientific facility produces stents, balloon catheters, guide wires and other products for less-invasive medical treatments. More than 2,200+ employees work at the 705,000-square-foot complex, enjoying a flexible, informal, and innovative culture that places teamwork—and people—at the heart of their success. They have continued to experience growth since 1993 when Scimed Life Systems (Maple Grove) merged into Boston Scientific.

Reservations are Required. Please reply to Mark Arlinghaus at Mark.Arlinghaus@genmills.com or call 763-764-5808 **no later than October 19th.**

Cost: Free

Directions to Maple Grove facility

I-94 about 0.5 miles west of I-694/I-494 intersection northwest of Minneapolis. Weaver Lake Road exit and then west about 0.5 miles to Boston Scientific entrance. Meet in the lobby of the second building (Two Scimed Place).

Managing and Developing Your Career *The AIChE Way*

In the midst of change and ambiguity, how do you manage and develop your career?

The AIChE Way of career management recognizes change as a constant in today's workplace and is built on two premises:

1. As a rule, we cannot control change. We can, however, control how we respond to it.
2. We own our careers and have the right and responsibility to act accordingly.

Management decisions are, in most instances, outside our control. These actions produce by-products—tenuous work environment, possible relocation, change in reporting relationships, etc. Will we be accepting of the change, appreciative of the opportunities change may bring, or self-protective and anxious? Will we respond positively and capitalize on the situation? Or will we respond negatively and adversely affect our performance, attitude and reputation?

Appreciating the concepts of career and job ownership is key to career management. In preparing to become a chemical engineer, you have invested your personal capital: intelligence, talents, finances, time, and energy. It is this investment—your investment—that makes you the owner of your **career**. Consequently, it is your right and responsibility to nurture and shape it. On the other hand, an employer invests its capital in each job it creates. Its investment makes it the owner of the **job**. Consequently, an employer has the right and responsibility to redefine a job, relocate a job, and even eliminate it. The difference between careers and jobs sheds light on what we can control and what we cannot control.

Acknowledge change

“A rock pile ceases to be a rock pile the moment a single man contemplates it, bearing with him the image of a cathedral.” —Antoine de Saint-Exupéry, author of *The Little Prince*

When confronted with change, acknowledge and capitalize on it. Use it as an opportunity and advantage. Let it expand your horizons and motivate you to explore the unknown, risky though it may be. Consider the pluses of an unexpected job transfer initiated by your employer: new responsibilities tapping unused talents, chances to learn and expand your portfolio of skills and competencies, introductions to new technologies, and adjustments to new management. All of these pluses have their corresponding minuses. Overcoming those minuses, however, is a very positive career builder—and a reputation builder. To be known as flexible and adaptable in a “foggy” environment is an asset!

Invest in your career

Your portfolio of knowledge, skills, and competencies is valued capital. Make it grow through wise investments:

- Enroll in your employer's training and development classes. Focus on building and strengthening your chemical engineering and technical skills. Additionally, attend business, management, and communication programs so that you will be prepared for internal promotions and transfers.
- Register for continuing education and professional development courses offered by AIChE and other organizations.
- Pursue a graduate degree in chemical engineering, business, or a related area that is consistent with your long-range plans. Invest your time and intelligence in the degree; ask your employer to supplement that investment through tuition reimbursement.
- Become licensed. Designation as a Professional Engineer adds stature to your professional credibility and reputation.
- Test and add skills as a volunteer in AIChE, your community, or other venues. For example, a volunteer leadership assignment is a low-risk vehicle for assessing managerial potential.

Build a reputation as a learner and as someone who encourages staff to learn and develop.

Ch: Create a network and hear what your network says

Create contacts built on mutual benefit—where you can call on each other for advice and information. Current and former work associates, college friends and faculty, fellow members of professional organizations, engineers at other firms, recruiters—all are invaluable sounding boards and sources of information.

In times of change, these contacts are sources of realistic and accurate information about the marketplace. Whether you are facing a critical career move (voluntary or forced) or looking for the answer to a work-related problem, your network will be an asset.

- The success of your network correlates directly with the attention and time you give it. Make a habit of keeping in touch with your contacts. Set a regular time each week for networking calls.
- Identify an experienced professional whose judgment and candor you respect. Ask him/her to be a mentor, someone who will listen to your goals and concerns and offer wise suggestions and advice.
- Volunteer to serve as a mentor to a less experienced engineer. Do the same for him/her that your mentor does for you. You'll probably find this relationship benefits you as much as it does your protégé.
- Networks and mentors offer insights into the general marketplace, as well as insights into who we are. Listen carefully to hear what they know about the marketplace and other employers. Listen equally carefully for what they think of you and your strengths and liabilities. Effective mentors and network contacts will give honest and helpful feedback essential to making career decisions.
- Listen carefully to the media (TV, newspapers, periodicals, etc.) to hear what the marketplace is saying.

Become known as an effective networker—help others and they will help you in return.

Envision your future with a plan

Where do you want to be next year? In a few years? What do you see yourself working at? How will your work have changed? Will you be working for a company? With a small group of colleagues? On your own? Managing your career requires answers to these and many more questions. Planning is the first step in achieving goals.

- Think of a career plan as a road map—taking you to your short-term and longer-term destinations.
- Begin by taking an inventory of your skills and competencies, personal strengths, values, and limitations. Invite family, your mentor, and/or close contacts to assist. Review past performance evaluations.
- Once you've completed this self-assessment, do a market assessment. Read, talk with informed persons, and do formal library and internet research. Identify your options based upon objective market research. Reality test those options in discussions with family, networking contacts, and mentors.
- Define goals that will satisfy who you are and what you want. Commit your goals to paper. Set short and long-term goals.
- Evaluate your progress and reward yourself along the way.

The AIChE Way of career management is characterized by introspection, persistence, and a belief in oneself.

Introspection provides accurate self-assessment as the basis of career goals.

Persistence overcomes the unexpected obstacles to reaching these goals.

A belief in oneself provides the hope that, even in the face of ambiguity and change, careers can be created and managed according to an individual's plan.

JOIN THE ROUNDUP! ANNUAL 2004

by AIChE National

Online registration is now open for the 2004 AIChE Annual Meeting, November 7–12 in Austin, Texas. Join over 4,000 engineers and scientists for the latest in

chemical engineering, including biotechnology, nanotechnology, sustainability, and more. You'll find over 540 technical sessions and 15 topical conferences on emerging and core areas. For more information and to register, see www.aiche.org/annual or call 1-800-242-4363.

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<http://www.aichelocal.org/tc>



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