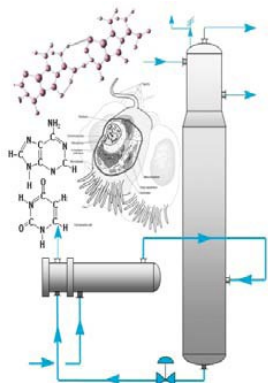


March Newsletter



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AIChE Chicago March 2013 Meeting Notice

The Science Behind Building a Diagnostic Assay



By: Dennis Gallo

Date: **Wednesday, March 13, 2013**
5:45 pm—8:15 pm
Tour: 6:15 PM

Location: **Abbott Labs**
100 Abbott Park Rd. Abbott Park, IL, 60064

Cost: **Members: \$35** **Non-Members: \$40**
Students: \$5 **Unemployed/Retired: \$20**

Click on the link to register!
<http://www.cvent.com/d/tcqfg7>

Registration closes at NOON March 12th!

Walk In Registration is not available for this meeting, so register soon!

Chair's Corner

Last week I did something that I've done before - conduct a series of lectures to refinery engineers about refinery problems. However, this time the environment was different so I thought it would be appropriate to pass some of my observations on to you. The engineers I was speaking to this time were at a company in Venezuela. I learned long ago that we Americans have many preconceived negative impressions of other countries that are frequently inaccurate. Way back in 1973 I was in the Air Force, and my first assignment after completing training was to go to Karamursel Turkey to work in an operation supporting NSA. People told me all kinds of negative stories about Turkey that turned out to be totally wrong, and living there turned out to be some of the best years in my life. Along the same lines some people put a negative spin about going to help engineers in Venezuela solve their refinery problems.



So what did I learn during this week long visit? First, the engineers there have many of the same problems we

do, and they struggle like we do to make things better: to make their processes run smoother, to improve energy efficiency, to make their processes more selective, and to keep their refineries running. Many of the engineers were working in operations involving US companies so they were familiar with US codes and industry specifications. The topics we discussed were the same as in any refinery in the US.

For years now we have been hearing about the “global economy” and how we have to learn to think about our work on a global scale. We should make part of that global thinking to include discarding preconceived negative impressions of other countries. Of course there are politics and governments in other countries that may not match our values, but our negative views about governments shouldn't be extended to the people of those countries – the people we need to work with in the future. Many of the negative stories we hear about other countries aren't accurate. People in other countries really aren't that much different from us.

Jerry Wilks

Chair –Elect

March Meeting Abstract:

Presentation Overview - The Science Behind Man- ufacturing a Diagnostic Assay

All blood bank donations are screened for infectious diseases, such as Hepatitis B, Hepatitis C, HTLV, HIV and Chagas. The diagnostic assays using by the testing instruments, at all blood banks, include a protein that interacts with disease markers in the patient sample. Production of Assay kits for Blood Bank Screening starts with cell propagation, followed by manufacture of microparticle and conjugate pairs. The last steps are filling the bottles with microparticles, conjugates and buffers, and packing them into a box. The tour will show all the areas where the manufacturing steps occur. The blood samples and reagents are combined on trays that feed into the blood screening instruments. Tray manufacturing will be featured on the tour as well.

Speaker's Bio:

Dennis joined Abbott in 2000 as a Senior Technical Specialist in the Diagnostics Division. He has held several positions at Abbott, including manager, R&D, Abbott Ireland Diagnostics Division. Dennis assumed his current role as Senior Manager, Lake County Manufacturing Operations, ADD, in 2010. Prior to joining Abbott, he was a biochemistry professor in Augustana College, in Rock Island, Illinois. Dennis graduated from Knox College with a bachelor of science degree in chemistry and received his Ph.D. in Chemistry for Arizona State University.



April Monthly Meeting

Save the date for the annual Student Meeting with Student Poster Competition will be April 10th at UIC!

RICHARD HOEHN WINS THE 2012 ERNEST W. THIELE AWARD

Congratulations to **Richard (Dick) Hoehn**, Senior Engineering Fellow at UOP for being awarded the 2012 Ernest W. Thiele award!

This prestigious award will be presented to Dick Hoehn at the **March 13, 2013** meeting of the Chicago AIChE section at the March meeting location at Abbott Laboratories.

Dick Hoehn is awarded the 2012 Ernest Thiele Award for his leadership and creativity in hydroprocessing technology. His contributions have resulted in improving the yields, efficiency, safety and reliability of this critical process for clean fuels. He is also presented this award for his years of mentoring and training that have resulted in better-trained design engineers and ultimately better processes for hydroprocessing.

The Ernest W. Thiele award is presented annually to a Midwest region member of AIChE who has made outstanding contributions to advance the practice of Chemical Engineering. The award is sponsored by BP, and consists of a plaque and a \$1000 honorarium.

Please join us in congratulating Dick Hoehn on his achievement.

February Social Outing Summary

The February AIChE Chicago Social was held on February 24th at Pin Stripes in Oak Brook. Fourteen AIChE members and friends enjoyed bowling and pizza. With six lanes, everyone had lots of time to enjoy bowling. The high scorer of the day was Ron Haas!



Young Professionals News

Whirlyball Social Summary

In mid-February, the Young Professionals Committee (YPC) hosted their Fourth Annual WhirlyBall event in Lombard. Nearly 40 people attended for the tournament and enjoyed pizza and drinks. Thanks to all who attended!

Check out more photos on our [facebook page](#) or our [Picasa photo album](#)!



DuPage County E-Week Expo Summary

The Dupage County Engineering Week Expo was a great success! There were about 1800 people who attended the expo as counted by the cadets at the door which is the largest E-week turn-out!

YPC had several volunteers representing AIChE and teaching young students about chemical engineering. Thanks to everyone who helped out; we are looking forward to next year!



Fermilab STEM Career Expo Volunteering

When: Wednesday, April 10th, 5:00PM-8:30PM

Where: Fermilab Wilson Hall, Batavia, IL

RSVP: Jenn, Guilfojm@Middough.com

Come join AIChE to represent chemical engineers at Fermilab's STEM Career Expo! High school students interested in math, science, technology, and engineering will be attending to learn more about career options.

For more information visit <http://ed.fnal.gov/programs/careerfair/>

Please RSVP to Jenn, Guilfojm@Middough.com if you are able to help volunteer!

Upcoming Meetings

Webinar: [New Materials for Membrane Separations](#)

Wednesday, March 6, 2013, 2:00pm-3:00pm EST

AIChE Chicago March Local Section Meeting

Abbott Park

March 13, 2013

Webinar: [From Wet Algae to Liquid Fuels](#)

Wednesday, March 20, 2013, 2:00pm-3:00pm EDT

Webinar: [Arsenic in Rice and Rice Products](#)

Wednesday, April 3, 2013, 2:00pm-3:00pm EDT

AIChE Chicago April Local Section Meeting

University of Illinois at Chicago

April 10, 2013

[2013 Spring Meeting and 9th Global Congress on Process Safety](#)

April 28 - May 2, 2013

Grand Hyatt, San Antonio, Texas

[2013 Process Development Symposium](#)

June 11-13, 2013

Oak Brook, IL

Job Opportunity

BSI Engineering is a full service engineering firm in search of a **PROJECT ENGINEER / PROJECT MANAGER** for our Chicago office.

BSI Engineering Background

BSI Engineering provides engineering & design services to clients in the steel, chemical, pharmaceutical and renewable fuels (Corn to Ethanol, Cellulose to Ethanol, Biodiesel) industries. We have compiled an experienced staff of engineering professionals who can perform Feasibility Studies, Process & Utilities systems' evaluations, Conceptual, Preliminary & Detailed designs for project ranging from \$10K to very large projects (\$100 million total installed cost) for more than 100 different industrial clients in the U.S. and Canada.. Our corporate headquarters is in Cincinnati, Ohio with a satellite office in Chicago.

Each employee has been hired based on a demonstrated ability to provide exceptional service to our customers. Company profit sharing programs, ownership model and management systems have all been designed to support and reward employees who place our clients first; recognizing employee satisfaction will be the end result.

Project Manager/Project Engineer Job Overview:

The project manager is an experienced project leader and is accountable for overall project implementation activities. The project manager is passionate, high energy, and results oriented with a creative and analytical mind and is experienced with advanced PM tools and processes, and has the ability to manage critical situations.

- Project management experience in coordination of all aspects of a project including client relations, developing project budgets and scopes of work, schedule development and leading a project team.
- Experience in leading and coordinating all phases of project development.
- Integrate into client environment in order to effectively lead project team while also building positive professional relationships with clients and associates.
- Define the objective, requirements, and assumptions necessary to structure a project or activity.
- Plan, schedule, and control activities to fulfill identified objectives applying technical, theoretical, and managerial skills to satisfy project requirements.
- Establish and maintain a high performing team and serve as a project advocate within the organ-

ization.

- Lead (coordinate, facilitate, and motivate) the efforts of the individual, team, client, and other resources associated with project activity. Ensure alignment on project goals and deliverables.
- Manage projects within the established scope, schedule, and budget while meeting or surpassing standards of quality.
- Lead risk management within the project team. Ensure risks have appropriate mitigation and contingency plans.
- Facilitate and lead effective meetings. Ensure appropriate agendas that enable key discussions and decisions within the team. Prepare meeting minutes and follow up on action items.

Requirements

Required Experience and Training:

- Bachelor's degree or higher in an engineering discipline (**Chemical Engineering degree preferred**)
- 10-15 years of industry experience

Knowledge and application of a disciplined project management process (PMP certifications are a plus).

Required Skills and Knowledge:

- Exceptional interpersonal and leadership skills.
- Technical aptitude and displayed ability to grasp a general knowledge of multiple disciplines and technologies.
- Strong competencies in planning, project management, leadership, and organization.
- Ability to produce and present clear, concise, and professionally written communications and presentations.
- Strong analytical capabilities
- Ability to lead and facilitate multiple activities and resources.
- Demonstrated work ethic, integrity, and professional conduct.

Contact Sharon Bates
Human Resources Manager
BSI Engineering, Inc.
sbates@bsiengr.com

Historical Engineering Events in March

March 1, 1864– Rebecca Lee Crumpler became the first African American woman to receive a medical degree and the only to receive a degree at the New England Female Medical College, which closed in 1873.

March 3, 1831–Thomas Jennings became the first African-American to receive a patent for his invention of ‘dry-scouring’, a process better known today as dry-cleaning. As a free man, he established a local business in New York in which he sold clothing.

March 5, 1991 – The 5 millionth patent is issued for a process turning garbage into fuel by Lonnie O. Ingram, a professor of microbiology at the University of Florida; Tyrell Conway, a former post-doctoral student at the university, and Flavio Alterthum, a visiting professor who is now chairman of the microbiology department at the University of Sao Paulo in Brazil.

March 7, 1979 - Voyager 1 transmits first images of a ring system around Jupiter. Voyager 1 was launched on September 5, 1977 and it passed Saturn in November 1980. A second spacecraft, the Voyager 2, was launched earlier on August 20, 1977.

March 8, 1775 – Priestley discovers oxygen through experiments with mice. Oxygen was independently discovered in the 1770's; the most famous names associated with this discovery are Joseph Priestley, Carl Wilhelm Scheele and Antoine Lavoisier.

March 8th is International Women's Day – “a global day celebrating the economic, political and social achievements of women past, present and future”. On March 8th and the weekend before, thousands of events are held throughout the world to celebrate women's achievements and highlight global issues concerning women and girls.

March 9, 1964 – First Ford Mustang rolls off assembly line. Ford sold 22,000 of the sporty

car on the first day of sales in April 1965. The Mustang was one of the most successful product launches in automotive history with over one million units sold in its first 18 months.

March 13,1970 – PDP-11 minicomputer introduced by DEC (Digital Equipment Corporation) and remained in active production until 1996. It was one of the most popular 16-bit minicomputers ever produced.

March 14, 1987 – First Pi Day is celebrated. 3/14 (3.14) was chosen by physicist Larry Shaw of the Exploratorium Museum in San Francisco to be celebrated as Pi Day. For more information, browse the Engineering Pathway's educational resources on Pi Day and other irrational numbers.

March 14, 1927 – First female engineer in ASCE. Elsie Eaves was the first woman in the US to be elected as a full member to the American Society of Civil Engineers (ASCE).

March 16, 1926 – Dr. Robert Hutchings Goddard launched the world's first successful liquid-fuel rocket. Goddard's rocket was a very small contraption connected to tanks with gasoline and liquid oxygen, and sitting atop a frame 10 feet tall. It screeched into the air for a few seconds, reaching an altitude of about 40 feet and crashing down about 200 feet from its launch site.

March 19, 1932 – the Sydney Harbour Bridge, Australia, was opened. It is the world's largest steel-arch Bridge. For more information, see the Engineering Pathway's resources on bridge design and construction.

March 22, 1985 – The Vienna Convention for the Protection of the Ozone Layer is adopted in response to studies documenting the harm caused to the environment and our own health by ozone-depleting substances. Ozone is a colorless gas, closely related to the oxygen in the air we breathe.

March 24, 1959 – the maser was patented by Charles Hard Townes (No. 2,879,439), who was a professor at Columbia University. “Maser” is an acronym for “Microwave Amplification by the Stimulated Emission of Radiation”.

March 25, 1954 – Production of RCA’s first color television sets. RCA based their color television on the 1947 patent application of Alfred Schroeder, for a shadow mask CRT. Their system passed FCC approval in late 1953 and sales of RCA color televisions began on March 25, 1954.

March 27, 1933 – Polyethylene is discovered. Polythene is also known as polyethene or polyethylene. It was discovered in 1933 by Reginald Gibson and Eric Fawcett, two scientists working at ICI’s research laboratory at Winnington, Northwich, who accidentally discovered the white, waxy solid while attempting to react ethylene with benzaldehyde in an autoclave.

March 30, 1842 – Dr. Crawford Long first uses ether as anesthesia to provide his patients with painless surgery. Diethyl ether (C₂H₅-O-C₂H₅), also known as ethyl ether or simply ether, is a clear, highly flammable liquid with a sweet, pungent odor.

March 31, 1889 – Eiffel Tower opens. The 300m Eiffel Tower was commissioned to commemorate the French Revolution. Amazingly, all of the elements were prepared in Gustav Eiffel’s factory located at Levallois-Perret on the outskirts of Paris. There were 18,000 pieces used to construct the Tower.

Did you know?

AIChE Chicago is now on Facebook and LinkedIn!

Like us on Facebook

www.facebook.com/AIChEChicagoSection

Or

[Join our group on LinkedIn!](#)

Tell us what you’re up to!

The last full week in February was Engineers Week (E-Week).

E-Week’s mission includes increasing understanding of and interest in engineering and technology careers and raise public understanding and appreciation of engineers.

For more information: www.eweek.org

Did you do anything special for E-week?

Tell us on our LinkedIn group!

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We welcome email submissions for our monthly newsletter. Commercial announcements are subject to the fee schedule below. News stories, editorials, technical or career related non-commercial contributions are always welcome with no charge. We consider job postings, announcements of for-fee training courses, expositions, conferences as commercial. Categorization of announcements is at the sole discretion of the Chicago AIChE Board of Directors. Chicago AIChE may publicize activities of interest to our members by cooperating professional societies and other non-profits without charge.

Please submit your material to aichechicago@gmail.com with "newsletter article" as a subject line.

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Special Sizing	Contact Publicity Committee aichechicago@gmail.com					

For the purchase of a year ad, customers have the option of changing ads/jobs month to month.

Student and AIChE Member Related Postings are Free.

