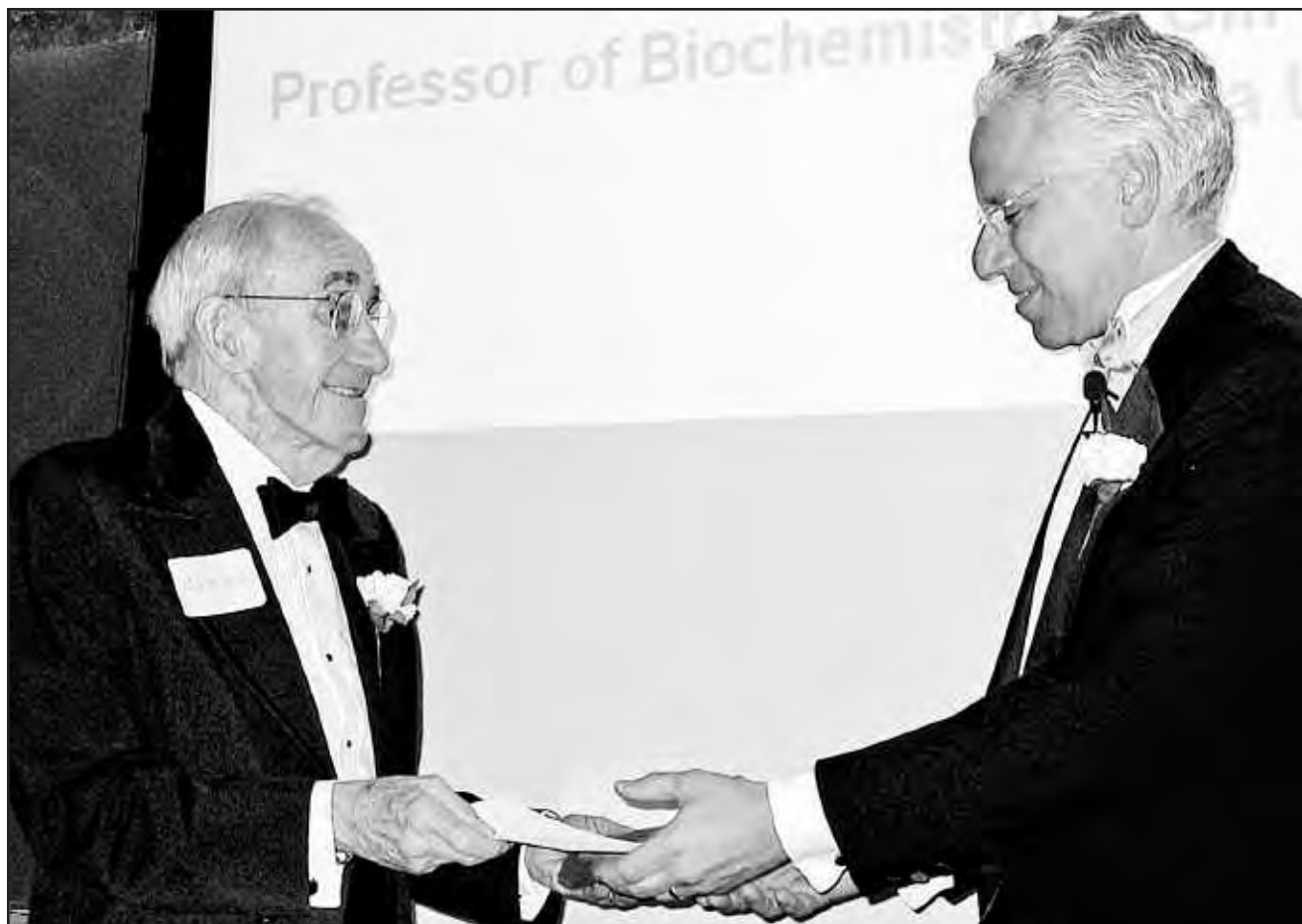


THE NUCLEUS

October 2007

Vol. LXXXVI, No. 2



Monthly Meeting

*Henry Hill Award to Dr. Ruth Tanner.
Prof. Hannah Sevian to speak at UMASS Boston*

2007 Buyer's Guide

In Memory of Gustavus J. Esselen III

Tributes to Ted and Arlene Light



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Cover: *Gustavus J. Esselen III presents the 2006 Esselen Award for Chemistry in the Public Interest to Professor Richard DiMarchi of Indiana University. (Photo by James Phillips).*

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In Memory of Gustavus J. Esselen III

July 15, 2007

Dear Friends and Family,

Many of you may have already heard that our father, Gustavus John Esselen, III, 85, of Hobe Sound, Florida, and formerly of Darien, Connecticut, died on June 28, 2007, at Fairview Red Wing Medical Center, in Red Wing, Minnesota. Dad was a wonderful, loving, fun, and generous father, husband and friend.

Over the years, we had the great privilege of knowing his many friends including former classmates, business associates from all over the world, neighbors, golfing buddies, war time friends from the U. S. Army Air Transport Command (Pan Am), as well as friends made in just the past few years. The qualities of Dad's friends clearly reflected his own warmth, intelligence, integrity and joie de vivre. Our lives have been enriched by Dad's friends and we are especially grateful for the support we received from them over the last year of Dad's life.

Dad was born on April 5, 1922, in Swampscott, Massachusetts, the son of Dr. Gustavus John Esselen, Jr., and Henrietta W. Locke. We remember his New England accent – but in later years it showed up only occasionally.

After graduating from Phillips Exeter Academy in 1940, Gus attended Harvard College from 1940 – 1943. World War II interrupted his education, and he served in the U. S. Army Air Transport Command from 1943 – 1946. He completed his college degree, earning an S. B. (yes, back then it was an S. B. degree) in Engineering Sciences and Applied Physics from Harvard in 1947.

He married the light of his life, Marjorie Aline Boucher on June 24, 1944, in Coconut Grove Florida. Just prior to his death, Mom and Dad celebrated their 63rd wedding anniversary. Mom and Dad's love for each other is legendary and is a fundamental bond and inspiration for our entire family.

Gus' career in the chemical industry resulted in many relocations over the years. He worked for his father at Esselen Research Corporation in Boston beginning in 1947 until the company merged with U. S. Testing in 1950, when he transferred to New Jersey with responsibilities in sales. In 1953, Pittsburgh Coke & Chemical Co. recruited him for a sales position, and the family (then 5 in number) moved to Pittsburgh, staying until 1964, when he returned to New York to work for C. P. Steuber and Company. In 1968, he founded his own company, Esselen Associates, which dealt in the international marketing, trading, and transportation of industrial chemicals, bulk liquids, and gases. Gus was highly successful in his trade and was recognized throughout the industry as a man of honesty and integrity – one whose word was a promise, and whose confidence could always be trusted.

Family was very important to Gus, and he made it possible for all to gather on a regular basis – children, grandchildren and even aunts, uncles, and cousins assembled for celebrations, with Gus in charge of every last detail; somehow he always found time to be the consummate host!

Gus, with Marge beside him, loved travel – they had many adventures all over the world together, and while he tired of the endless cathedrals and museums, he eagerly anticipated mussels in Brussels, seafood in Venice and sumptuous dinners at wonderful hotels. Rumor has it that they managed to find the honeymoon suite wherever they were.

Gus' grandchildren, eight wonderful young adults now, all benefited from their Pops' sage advice... he was a role model, mentor, friend, fellow Wahoo fisherman, and golfing buddy. He was always interested in their doings, whether educational in nature, their prowess in athletic endeavors or their chosen careers. He was a very proud grandfather. *continued on page 10*

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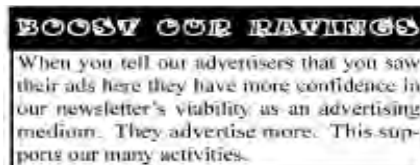
Nominations

2008 Esselen and Richards Awards

Nominations for the **2008 Gustavus J. Esselen Award** for Chemistry in the Public Interest are due by October 15, 2007. Full details were printed in the September Nucleus.

For more information please contact Karen Piper: (978)-456-8622, email: piper28(at)attglobal.net for more information.

Nominations for the **2008 Richards Medal Award** are due by November 1, 2007. Full details were printed in the September Nucleus. For additional information please contact Gary R. Weisman: (603)-862-2304, email: gary_weisman(at)unh.edu. ◇



Monthly Meeting

The 881st Meeting of the Northeastern Section of the American Chemical Society

Henry Hill Award,

Presentation and Recognition of the 50-year members

Thursday, October 18, 2007

University of Massachusetts, Boston

Campus Center 2nd Floor - University Dining Club,
100 Morrissey Boulevard, Boston, MA

4:30 pm Board Meeting

5:30 pm Social Hour

6:15 pm Dinner

7:15 pm Presentation of 50-Year Members

7:30 pm Award Meeting, Dr Mukund Chorghade, NESACS Chair Presiding

Henry A. Hill Award for Outstanding Service to the Northeastern Section to Ruth Tanner

Evening Lecture: Dr. Hannah Sevian, *Incremental Movement Toward an Inquiry Lab Curriculum in General Chemistry: Can Changing a Single Laboratory Experiment Improve Student Performance?*

Dinner reservations should be made no later than noon, Thursday October 11, 2007. Please call or fax Marilou Cashman at (800) 872-2054 or e-mail at MCash0953(at)aol.com. Reservations not cancelled at least 24 hours in advance must be paid. Members, \$30.00; Non-members, \$35; Retirees, \$20; Students, \$10.

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Public Transportation:

Subway: Take the Red Line to JFK/UMass Station. A free shuttle bus will carry you to the campus.

Commuter Rail: Take the commuter rail to the JFK/UMass station from the South Shore on the Middleboro and Plymouth lines.

By car from the north: Take Interstate 93 South through Boston to Exit 15. Take a left at the end of the ramp onto Columbia Road, and then take your first right in the rotary. Follow the University of Massachusetts signs along Columbia Road and Morrissey Boulevard to the campus.

By car from the south: Take Interstate 93 North to Exit 14 and follow Morrissey Boulevard north to the campus.

By car from the west: Take the Massachusetts Turnpike (Interstate 90) east to Interstate 93. Take I-93 South one mile to Exit 15. Take a left at the end of the ramp onto Columbia Road, and then take your first right in the rotary. Follow the University of Massachusetts signs along Columbia Road and Morrissey Boulevard to the campus.

Parking fees: \$6 per single use.

Abstract

In response to current research about how students learn science, many institutions are working to transform their general chemistry laboratory curricula to be inquiry-oriented, because current research shows that wholesale change in general chemistry lab curriculum from traditional, directive student experiments to discovery-based student experiments has a significant positive impact on student learning. However, there are many barriers to wholesale change, notably cost and institutional capacities, and as a result many general chemistry laboratory curricula remain largely traditional in pedagogy. One alternative to wholesale change is incremental change, the gradual modification of the curriculum to incorporate research about how students learn science best. We have designed and are engaged in a series of studies to investigate the incremental impact on student learning of phasing inquiry-oriented labs into a traditional freshman chemistry lab curriculum. Green chemistry is an environmentally conscious philosophical approach to doing chemistry. We use a research-based instructional materials develop-

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Biography

Hannah Sevian (Associate Professor, Chemistry and Curriculum & Instruction, UMass Boston) was trained as a theoretical physical chemist, did post-doctoral work in polymer chemistry and materials science, taught the educational gamut of chemistry and physics in both English and Spanish in a Boston-area urban high school, and has established herself in the last six years in the field of chemistry education research. She was lead author on three chapters of the recently published, NSF-funded Active Chemistry high school curriculum and contributed to developing three other chapters of an earlier edition.

Research in Dr. Sevian's lab is concerned with how people learn

Continued on page 11

Informal Class in Mentoring

By Dan Eustace



Photo by Morton Z. Hoffman

Ted and Arlene Light's Shining volunteer example

The following remarks were prepared and presented by Dan Eustace at the Symposium honoring Ted and Arlene Light held by the Division of Professional Relations at the National ACS Meeting in Boston. The symposium was held on Tuesday, August 21, 2007. Dan's remarks have been slightly edited and reformatted for inclusion in the Nucleus.

Thank you for this opportunity to share with you some personal and, I might add, most pleasant, experiences in being in the company of Arlene Wick Light and Truman S. (Ted) Light, who are most worthy winners of the Henry A. Hill Award. The Henry Hill Award recognizes those distinguished people who have served the chemistry profession uniquely. And who better to receive this and have a symposium in their honor in Boston but Arlene and Ted. Both have tirelessly served the Northeastern Section and Society members for many meetings...

We don't talk about years...

This modest offering is on the role Arlene and Ted played for me, and for many other members in mentoring us. How would a poor kid from the first ward in Buffalo, NY, ever be asked to stand up and speak to you on such a momentous occasion?

We'll come to that a little later...

Through example and person-to-person interactions, they made a big difference, but never sought credit. We realize very few of us have formally identified mentors to help us make sense of the confusing and tangled worlds of landing interviews or being selected for a position or promotion. After encountering, and being "one-tweod" by Ted and Arlene, you gained a sense of it, like smelling freshly ground coffee beans.

This is a typical conversation starter with Ted and Arlene:

Question: *Dan, name the four seasons?*

Arlene, with a 'gotcha smile': *Salt, pepper, mustard, and vinegar!*

Arlene, a follow-up question: *How is dew formed?*

Ted, in an analytical way with hands and eye brows flashing: *The sun shines down on the leaves and makes them perspire.*

Not waiting for me to catch my breath, Arlene offers a question: *How can you delay milk from turning sour? (brilliant, love this!)*

Answer: *Keep it in the cow!, she says.*

Ted, not wanting to be outdone asks a **question:** *What are steroids?*

Answer: *Things for keeping carpets still on the stairs, she says right in the rhythm of the thought.*

Faster than greased lightning, he asks another **question:** *Name a major disease associated with smoking?* **Answer:** *Premature death, right in tune....*

Question: *What does varicose mean?* **Answer:** *Nearby...*

Question: *What does the word benign mean?*

Answer: *Benign is what you will be*

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To Ted and Arlene Light

Presented at the ACS Henry Hill Award, Tuesday, August 21, 2007

When Arlene Wick married Ted Light, a flame was ignited that has lit the path for many who have encountered them; and, like the Olympic flame, has traveled through many states and countries in our hearts. Ted and Arlene, I really mean that because you have touched many of us, not just through counseling and guidance for getting a job, but because you cared enough to get to know the person.

There is no better word than "sustainability" to describe Ted and Arlene Light's commitment to the career development of young chemists. From the Northeastern Local Section Employment Bureau, through NECH (the National Employment Clearing House), to CEPA/CPR (Committee on Economic and Professional Affairs, previously known as Committee on Professional Relations), their approach was holistic.

In the days when it was a tough search to find an employer, Ted and Arlene were your introduction, many times at their home, bringing in job seekers – AND employers as well – together in their basement, across the table to talk jobs. They took the time to know the job seekers and to help them write resumes that matched their goals. Then, twice a year at NECH, the Lights would extend their network – being sure to look for employers who were from the Northeastern area so they could contact them when they got home.

As you know, no good deed goes unpunished – so the Lights were voted to council. Leading and influencing programs to assist job seekers, at committee sessions Ted and Arlene shared their strategies and anecdotes which contributed to new program development at the national level, such as the Local Section Career Program.

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Call for Applications

**YCC/NESACS–JCF/GDCh
Exchange to Germany
March 25–April 2, 2008**

The Younger Chemists Committee (YCC) of the Northeastern Section and the NESACS Education Committee invite applications from undergraduate and graduate students of chemistry, biochemistry, and chemical engineering at colleges and universities within the Section to spend a week in Germany as the guests of the *Jungchemikerforum* (JCF) of the *Gesellschaft Deutscher Chemiker* (GDCh). The exchange group will consist of up to 12 students and a number of faculty and industrial representatives.

The trip to Germany will begin with an overnight flight from Boston on Tuesday, March 25; return to Boston will be on Wednesday, April 2. The trip will include a student chemistry research conference (*Frühjahrssymposium*) in Rostock on Thursday-Saturday, March 27-29, which will provide the opportunity for the participants to engage in extensive networking with German and other European students and to take part in discussions focused on careers, education, and international opportunities. On Sunday-Tuesday, excursions to industrial, academic, scientific, and cultural institutions in and around Hamburg will be scheduled. Each student representative from NESACS will be expected to make a poster or oral presentation on his/her research at the *Frühjahrssymposium* and, upon return, at the Northeast Student Chemistry Research Conference (NSCRC) on Saturday, April 26. Air tickets will be provided by NESACS; accommodations in Germany will be covered by GDCh. A working knowledge of German, while useful, will not be specifically required; the language of the *Frühjahrssymposium* and other events will be English.

Application forms are available on

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2007 Henry A. Hill Award To Ruth Tanner



The 2007 Henry A. Hill Award will be presented at the October meeting to Dr. Ruth Tanner, Professor Emerita at UMASS Lowell. The Hill Award is presented annually to a member of the Northeastern Section of ACS for meritorious service to the NESACS and to the profession of Chemistry. Dr. Tanner received her BS degree from Purdue University (1960) and her Ph.D. in Physical Organic Chemistry from University of Cincinnati (1965). After performing post doctoral research at Duke

University (1965), she accepted a position at Massachusetts State College at Lowell (currently UMASS Lowell) where she served as Chair of the Chemistry Department (1974) and Professor of Chemistry (1975-2007). Dr. Tanner was a Visiting Scientist at MIT (1978-1980), representative for the American Association of Colleges and Universities on the Joint Council on Food and Agricultural Sciences of USDA (1979-1985); and Director of the Women in Science and Engineering Program (1996-2005), where over 4500 middle-school girls participated in hands-on workshops with professional women from industry and research. This organization was recognized for its commitment in preparing girls for careers in Science and Mathematics and awarded the Advancement Award by the Boston Club in 2000. Dr. Tanner's areas of interest have included Physical Organic Chemistry,

Continued on page 10

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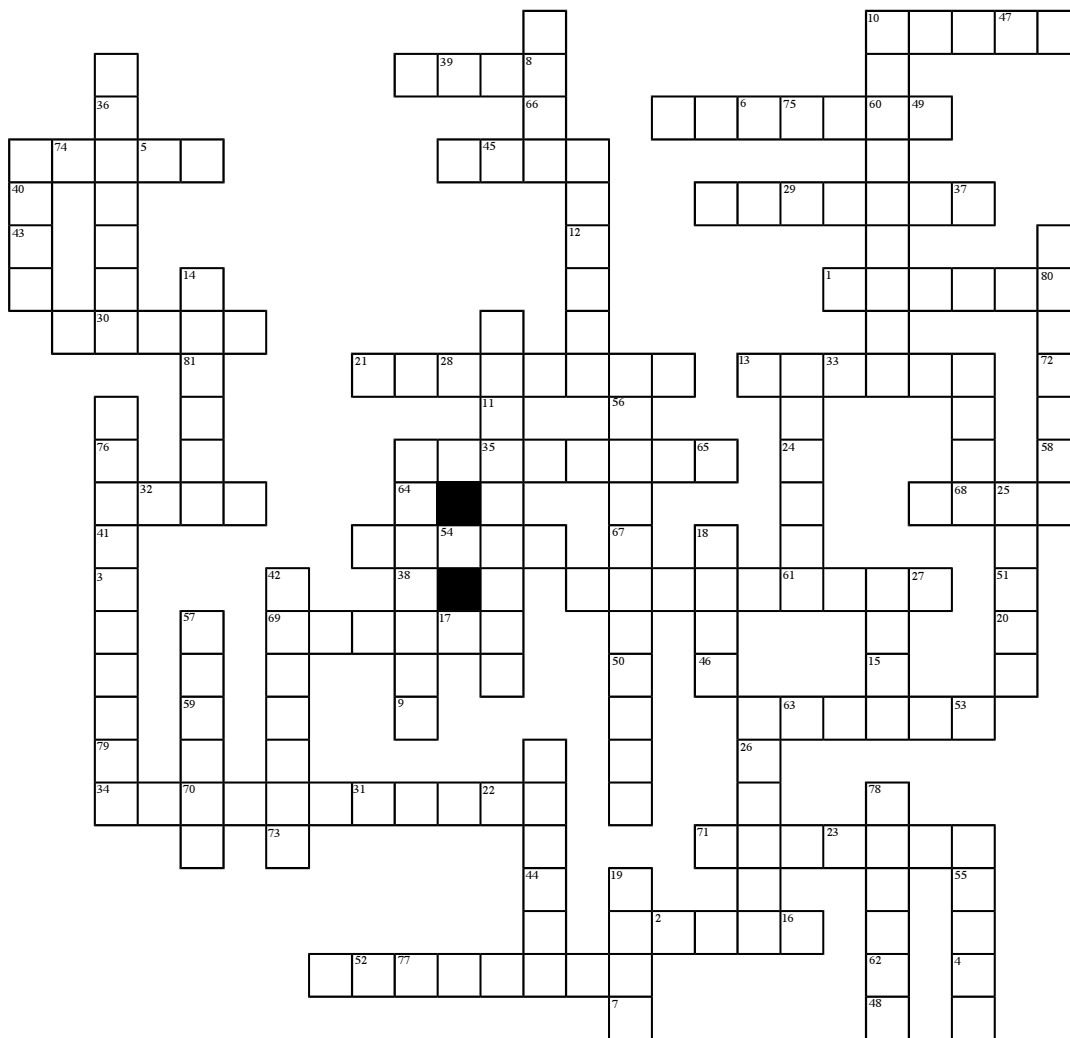
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20th Anniversary National Chemistry Week Criss-Cross Contest

by Chris Morse and Lance Nathan

In honor of the 20th Anniversary of National Chemistry Week, this criss-cross puzzle contains the last names of all the Nobel Prize winners in chemistry of the last twenty years. You can go to www.nobelprize.org to find all 44 people who have won from 1987 until now. Once you fill all 44 last names into the criss-cross grid, transfer the numbered

letters from the grid to the spaces below to make the final message. To qualify to enter, you must be in a grade no higher than 12th. Follow the instructions, and e-mail your contest entry to NCWpuzzles@yahoo.com. Make sure to include your name, address, school, science teacher and grade. Entries will be judged and results will be posted later.



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54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72
73	74	75	76	77	78	79	80	81										



National Chemistry Week Events



Celebrating

The Many Faces of Chemistry & 20 Years of NCW

October 21, 2007 – Museum of Science Boston

- *Phyllis A. Brauner Memorial Lecture by Dr. Bassam Shakhashiri*

Dr. Bassam Shakhashiri is a Professor of Chemistry at the University of Wisconsin-Madison and is the William T. Evjue Distinguished Chair for the Wisconsin Idea. Professor Shakhashiri has captivated audiences with his scientific demonstrations at a variety of locations, including Boston's Museum of Science, the National Academy of Sciences, and the Smithsonian's National Air and Space Museum in Washington. Taking place in Cahners Theatre (2nd floor, Blue Wing) at 1 pm and at 3 pm.

- *Kicking off National Chemistry Week 2007 Festivities*

Join us in a variety of hands on activities related to the yearly theme. Taking place from 10:00 am – 2:00 pm on October 21, 2007 in the lower level of the Blue Wing.

October 27, 2007 – Boston Children's Museum

From 11 am – 4 pm, NCW volunteers will be on-hand throughout the museum to perform demonstrations and assist in hands-on activities related to the yearly theme.

September 15 – October 10, 2007

K-12 students participate in the NCW **poster competition**.

Visit www.nesacs.org and

http://www.chemistry.org/portal/a/c/s/1/acsdisplay.html?DOC=ncw\ncw_index.html
for more information.

October 21 – 27, 2007

Grades 1-12 may participate in the **puzzle contest**. See www.nesacs.org or the October, 2007, issue of the Nucleus for the puzzles and contest information.

Call for Applications

Continued from page 7

the YCC <<http://www.nsycc.org>> and NESACS <<http://www.nesacs.org/>> websites. The following material must be submitted electronically with the application form: the abstract of the presentation to be made at the *Frühjahrssymposium* and the NSCRC; an essay on the relevance of the exchange to the student's professional goals; a letter of recommendation from the student's research supervisor; and approval from the supervisor and the chair of the department of the student's absence from classes, the research laboratory, and other responsibilities. In addition, finalists will be interviewed by members of the Organizing Committee.

For more information, contact Dr. Michael Strem, Chair of the Organizing Committee, at <mstrem@strem.com>.

Deadline for electronic receipt of applications: November 8, 2007, at 5:00 p.m. ◇

Gustavus Esselen III

Continued from page 4

Dad was not only extraordinarily generous to his family, but he also established many ways to make important contributions to charity and education. Chief among these accomplishments are The Esselen Family Fund, and scholarship gifts to Harvard University and Hood College.

As many of you know, he also established the Gustavus John Esselen Award for Chemistry in the Public Interest in 1987 to honor his father. This is one of the most prestigious honors provided by the Northeastern Section of the American Chemical Society and has been granted now to twenty-one highly qualified chemists including two Nobel Prize winners.

Because of Dad's careful planning, all of these exemplary philanthropic programs will continue in his memory.

It was so sad to see his health deteriorate over the last year and a half, and to see him worry about how to shed his role as chief cook and bottle washer and primary caregiver for

Mom, following her stroke in 2004. Even to the end he was concerned that Mom's needs were being met, and that we were paying the proper attention to all the details of his affairs. Today there is a hole in our lives as we assume the responsibilities he helped us learn, but he's there in our memories with the checklist to keep us on the straight and narrow path.

Thank you all for your support and friendship as we honor the life of our father.

Sincerely,
Joan Foot, Jane Blocker, and Jack Esselen ◇

Ruth Tanner

Continued from page 7

Food Chemistry, and Chemical Education. Dr. Tanner's contributions to the Northeastern Section of the American Chemical Society include the following: Member of the NESACS Board of Directors (1996-present); Chair of the Education Committee (1996-present); On-Site Coordinator for the ACS's TV satellite seminar series, *Teaching Chemistry*, presented during National Chemistry Week (1996-1999), Chair of *Connections to Chemistry*, a program connecting high-school teachers with ACS chemistry education courses and hands-on workshops representing over 85 high schools throughout New England (2000 to present); and Co-Chair for the High School/College Interface Symposium in the Chemical Education Division at the 2007 National Meeting of ACS. Dr. Tanner's many contributions on the Education Committee are noteworthy and include the promotion of programs for undergraduates and high school chemistry teachers such as the Norris and Richards Undergraduate Summer Research Scholarships; travel support for undergraduates to attend ACS National Meetings; Lyman C. Newell Grants of financial assistance to high school chemistry teachers to attend conferences and meetings; ACS Scholars Program; the Northeast Student Chemistry Research Conference; the NESACS-JCF/GDCh Exchange Program; and Northeast Undergraduate Day ◇



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Abstract

Continued from page 5

ment cycle to create green, inquiry-based lab experiments for use in university freshman and high school chemistry courses. These include a green stoichiometry lab, an acid-base equilibrium lab, a lab connecting solubility, equilibrium & periodicity, and a colligative properties lab. For our research studies, we create matched pairs of lab experiments for students to do – one that is green and has an inquiry-based pedagogy, and a second that is not green and has a traditional pedagogy. Both lab experiments in a matched pair cover the same chemistry content, require the same calculations, and have students use the same laboratory equipment and similar procedures. I will present a comparison study we recently completed of student performance after completing either a traditional or a green inquiry stoichiometry

To Ted and Arlene

Continued from page 6

What can I say, many job seekers and employers have benefited from knowing the Lights and being under their tutelage. I'm sure statistics on how many chemists they've helped get jobs alone, could challenge any number of local sections.

We all have benefited from their love for each other, their love for the profession, and their love for the ACS. Ted and Arlene, your devotion and dedication have been exemplary and leave us a hard trail to follow.

From your Career Services family: Dave, Cheryl, Frank, John, Karen, Anita, Kemie, Tiffany, Elaine, your daughter Garretta, and me, we thank you.

Over the years, one of the good things about coming to the Boston meeting was if you had talked with Ted or Arlene before you arrived, when you arrived at NECH, you were where "somebody knew your name."

Written and Presented by
Tanya Fogg, Past Manager ACS
Employment Services ◇

Biography

Continued from page 5

chemistry, how specific teaching practices influence student learning in chemistry, how scientists can learn from teachers to communicate science more effectively, and what is needed particularly by and for underrepresented minority students to better enable them to study science. The unifying feature of her work is that it is directed at improving equity and creating capacity for more students to have access to learning science.

Dr. Sevian is the PI on the Boston Science Partnership (NSF math science partnership), through which she works

experiment. I will also briefly discuss studies we are currently engaged in to examine the impact of two or more inquiry experiments on student performance. ◇

with all teachers of middle and high school science in Boston as well as STEM faculty at two universities and at two public community colleges in Boston, and she conducts the associated research on STEM faculty involvement and teacher content knowledge gains. She is also the PI on another NSF grant to conduct a research study of the STEM pipeline of public school students in an urban system through high school, community colleges, and four-year university. She is a co-PI on an NSF GK-12 project (WISP-1 and WISP-2 grants) and conducts associated research on the development of scientific research explanations by graduate students. She was awarded the 2006 UMass President's Public Service Award for her work at UMass Boston and in public schools, and the 2007 Boston Higher Education Partnership Service Award for her work with students and teachers in Boston Public Schools. ◇

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2007 Esselen Award Photos

All pictures by Fritzsche Photography



The Esselen family representatives at the 2007 award meeting: (l to r) Gustavus J. Esselen IV, his wife Catherine Esselen, Susan Bachrach, Christopher Foote, Peter Hanson, and , seated in front, Mrs. Josephine Esselen Hanson.



Dr. Mukund Chorghade, 2007 NESACS Chair, with Mrs. Veena Chorghade, Dr. Laura Langer and Dr. Robert Langer, MIT, 2007 Chair of the Esselen Award Committee and 1999 Esselen Awardee.



Gustavus J. Esselen IV presents the 2007 Award to Professor Michael Marletta, Aldo de Benedictus Distinguished Professor of Chemistry and Chair of the Chemistry Department, University of California, Berkeley.



Dr. Bill Klemperer, Harvard, and past Chair of the Esselen Committee, in discussion with Prof. Michael Marletta, 2007 recipient of the Gustavus John Esselen Award for Chemistry in the Public Interest.

Mentoring

Continued from page 6

after you be-eight!

They thought deeply, imagined what each person might be conjuring, spent un-numbered hours with people patiently doing small things. They treated each member as important and opened doors where doors seemed closed for many. Reminds me of some words of Ogdan Nash:

Foreigners are people somewhere else

Natives are people at home;

*If the place you're at is your habitat,
You're a foreigner, say, in Rome. But
the scales of justice balance true,
And tit only leads to tat,*

*So the man who's at home when he
stays in Rome*

*Is abroad when he's where you're at.
There's many a difference quickly
found*

Between the different races.

*But the only essential differential is
living in different places.*

In the process, they gave a course, an informal one, in carefully expressed and deftly delivered mentoring. In the process they showed the lasting happiness one can be left with in a volunteer role. Mentoring, they showed, gives a person the chance to be successful as well as significant. Which got me to think of two poems:

LIGHT

There once was a gent named Truman S. Light.

Who analyzed ions with unending delight.

He shifted gears, as he wore on in years

To light up significant paths

For others to pursue their discovered sight.

ONE AND ONLY ARLENE...

There once was a personality from Buffalo,

Who got her MRS from the ACS.

Unmistakably likeable, unshakably dependable

She got her significance

By creatively easing our fears and helping us.

We all know the difference between successful and significant is that when you are no longer here, your success will end. When you are significant you continue to help others long after you are gone. Significance lasts many lifetimes....That is why many people are teachers, leaders, and coaches. Both Ted and Arlene have led wonderfully fulfilling lives before they met and after. Arlene has been a fore-running career woman chemist, educated at one of the most demanding institutions in the Northeast, UB. No not BU, the University of Buffalo. She moved to Boston and met Ted.

Ted has had a productive career. After studying with Kolthoff and Lingane. He was a commissioned officer in the navy, served on the faculty at BC, and had a successful industrial career at Foxboro Company with a long term involvement in ion selective electrode development.

Ted and Arlene suggested to people that many of the career related

services could be staffed most ably by volunteers. Arlene and Ted recognized trends in the 1980s that mentoring in science and engineering were taking on added importance. Most new Ph.D.s found work outside of academe. They entered more diverse employment environments that were more interdisciplinary, collaborative and team-oriented. As this grew, they were of the first generation of member volunteers to serve the society in providing member services.

The first time Ted and I met was over dinner at Clark University, where Ted's son, Stuart, was hosting a society meeting. Ted asked if I might be interested in helping at an ACS meeting. The national meeting that year was in Boston and sure enough the Nucleus had a request for volunteers to help at the meeting: **Just contact Ted and Arlene.** That chance suggestion has led to many informative discussions, trips and, simply, just observing how Ted and Arlene unpretentiously and unobtrusively offered simple help.

The term "mentor" comes from a character in the *Odyssey* by the same

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From the Editor

Last month the Nucleus reprinted an article from the Needham Times about Pamela Chen's desire to ride while battling cancer in the Pan Mass Challenge. As the September issue was going to press the Nucleus was informed that Pamela's brothers had ridden in her place on Saturday from Wellesley to Bourne and Pamela passed away on Sunday. An obituary and remembrances of Pamela can be found at <http://www.legacy.com/BostonGlobe/DeathNotices.asp?Page=LifeStory&PersonID=92133886> and www.eatonfuneralhomes.com.

We are deeply saddened to report this tragic news. MPF ◇

Call for Abstracts!

The 6th Annual New England Environmental Research Symposium

Saturday, November 10, 2007

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Bridgewater State College

Poster abstract submission is open to all undergraduate and graduate students at <http://www.bridgew.edu/Environmental>.

Abstract submission deadline is October 31. Please email questions to Ed Brush (ebbrush@bridgew.edu) ◇

Connections to Chemistry 2007

Connections to Chemistry 2007 will be held at Burlington High School on Wednesday, October 17, 2007 from 3:30 – 8:00 pm. For detailed information please see page 2 of the September Nucleus or contact Ruth Tanner: (978)-934-3662, email: [Ruth_Tanner\(at\)uml.edu](mailto:Ruth_Tanner(at)uml.edu). ◇

For late breaking news, job postings and the latest meeting and event information please visit us at

WWW.NESACS.ORG

Mentoring

Continued from page 19

name. He was an older man who was entrusted by Ulysses with the care and education of his son, Telemachus, while Ulysses was away at the Trojan War. Athena, goddess of wisdom and daughter of Zeus, had a fondness for Ulysses. Disguised as Mentor, she would also help guide the young Telemachus. What this suggests is that the gods operate through the medium of our mentors, and one of the prime characteristics of mentors has traditionally been that they're "enthusiastic." That is, god-inspired.

A mentor is a kind of soul mate and carrier of souls, a kindred spirit who sees something special in us, not just as we already are but as what we could become. Embodied in what they did and said were at least nine things. There are probably more...

1. Be enthusiastic and knowledgeable about science, chemistry, and careers in research and problem-solving.
2. Have a positive outlook about chemical careers

3. Have likeable personalities. A good sense of humor is helpful
4. Believe that there are no individual limits (biases) to being able to do chemistry
5. Be very good listeners and able to articulate ideas effectively
6. Be open-minded about what defines success in the changing world
7. Maintain high, respectful standards
8. Be willing to take time to speak to people and listen to their concerns and needs
9. Value different approaches and world views.

IMPORTANCE OF SMALL TALK

It was always amazing how Arlene would be able to hold a conversation with nearly everyone she would encounter. To match this Ted would be able to display an incredible dry and thoughtful sense of humor. It often took several seconds to connect the dots.

FIRST IMPRESSIONS

You can't imagine, Ted would tell me, how important that first impression you make on people is. It is invaluable.

So be prepared to make a good one no matter where you are. Act like you want to be there and make a difference from the first instant.

PERSISTENCE AND OPTIMISM

Arlene would always tell me nothing can take the place of persistence in whatever you do. Persist in the things you believe in. Optimism is a force multiplier.

TO SUM UP, Arlene and Ted, you both are highly deserving of The Henry Hill Award because you are persons of "significance". You have helped me see this in its basic forms. Quotation matched the feeling Arlene gave me in a phone conversation this past weekend...What Ted and Arlene would say to us [quoted from M. Martin]: "But of all those people who went before to prepare the way for us, most of those people will not ask us to pay them back. But they would ask us to pay forward— that we make this place a better place for those who come after us in just the same way they made this a better place for us."

Thank you for your attention.

Congratulations, Arlene and Ted. ◇

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for late additions:
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**Note also the Chemistry Department web
pages for travel directions and updates.**

These include:

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<http://www.unh.edu/chemistry/seminars.html>

Oct 1

Prof. Klaus H. Theopold (Univ. Delaware)
"The Beauty of "Chrome" — New Chemistry of
a Colorful Metal "
Boston University, Life Science and Engineering
Bldg. Auditorium (B01),
4:00 pm Reception 3:30 pm

Joanna Aizenberg (Harvard)
TBA
Harvard, Pfizer Lecture Hall
4:15 pm to 5:15 pm

Oct 2

Peter Christy (UNH)
TBA
Univ. New Hampshire, Iddles Rm L103
11:10 am

Oct. 3

Dr. Peter Caravan (Mass General Hospital)
"Molecular MRI - from Bench to Bedside"
UMass Dartmouth in Building Group II,
Room 115
4:00 pm

Oct 4

Young-Kyun Kwon (U.Mass.-Lowell)
TBA
Univ. New Hampshire Iddles Rm L103
11:10 am

Oct. 8

Dr. Michael Johnson (Univ. Georgia)
"Iron-Sulfur Cluster Biosynthesis"
Brandeis Univ, G122
3:45 pm

Oct 9

Prof. Susan L. Bane (SUNY-Binghamton)
Designer Drugs: Progress in Development of
New Anticancer Agents Based on Taxol
Univ. New Hampshire, Iddles Rm L103
11:10 am

Oct. 10

Dr. Stephen J. Eyles (UMass Amherst)
"Mass Spectrometry at UMass-Amherst: Not
just measuring molecular weight?"
UMass Dartmouth in Building Group II,
Room 115
4:00 pm

Oct 11

Mikhail Zhukovskiy (UNH)
TBA
Univ. New Hampshire, Iddles Rm L103
11:10 am
Theodore Goodson, III, (Univ. Michigan)
"Optical Applications of Novel Organic
Aggregates"
Harvard, Pfizer Lecture Hall
4:00 pm to 5:00 pm

Oct 15

Robert H. Grubbs (California Institute of
Technology)
2007 Lambert Lecture
"Metathesis: Catalysts & Applications"
Boston University, Life Science and Engineering
Bldg. Auditorium (B01),
4:00 pm Reception 3:30 pm

Amy Keating, (MIT)
"Production, design and characterization of
protein interaction specificity"
Harvard, Pfizer Lecture Hall
4:15 pm to 5:15 pm

Oct 16

Bob Moss (Rutgers Univ.)
TBA
Univ. New Hampshire, Iddles Rm L103
11:10 am

Oct 17

Dr. Satya Reddy
"Vitamin D analogs"
Northeastern Univ. 129 Hurtig Hall
12 noon

Dr. William Armstrong (Boston College)
"Insight into Photosynthesis by Making Use of
Synthetic Inorganic Chemistry"
UMass Dartmouth, Building Group II,
Room 115
4:00 pm

Robert H. Grubbs (California Institute of
Technology)
"Synthesis of Molecules and Materials Using
Olefin Metathesis"
Tripathy Endowed Lecture
University of Massachusetts Lowell, Faculty-
Alumni Lounge
3:30 pm

Oct 22

Prof. Gregory A. Voth (Univ. Utah)
TBA
Boston University, Life Science and Engineering
Bldg. Auditorium (B01),
4:00 pm Reception 3:30 pm
Dr. Eduardo Perozo (Univ. Chicago)
TBA
Brandeis Univ.G122
3:45 pm

Oct 23

Elizabeth Garcia (UNH)
TBA
Univ. New Hampshire, Iddles Rm L103
11:10 am

Oct 24

Prof. Cecilia J. Hillard (Medical College of
Wisconsin)
TBA
Northeastern Univ. 129 Hurtig Hall
12 noon
Dr. T. W. Swager (MIT)
"Polymer Electronics for Ultra-Sensitive
Chemical Sensors"
UMass Dartmouth, Building Group II,
Room 115
4:00 pm

Oct 25

Leanna Conway (UNH)
TBA
Univ. New Hampshire Iddles Rm L103
11:10 am
Michael Deem (Rice Univ.)
TBA
Harvard, Pfizer Lecture Hall
4:00 pm to 5:00 pm

Oct 30

Huw Davies (Univ. Buffalo)
Organic Syntheses Distinguished Lectures Series
TBA
Univ. New Hampshire, Iddles Rm L103
11:10 am

Oct 31

Dr. Rich Dluhy (Univ. Georgia)
TBA
Northeastern Univ. 129 Hurtig Hall
12 noon

Dr. Elsa Yan
"Photoactivation Mechanism of G Protein-
Coupled Receptor Rhodopsin"
UMass Dartmouth, Building Group II,
Room 115
4:00 pm

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