

Chemical Bond

Volume 52
Number 7
October, 2001

St. Louis Section, American Chemical Society



*57th Midwest Award
Vasu Nair*

See page 2

Vasu Nair, 2001 Midwest Awardee

Vasu Nair, Professor of Organic Chemistry at the University of Iowa, has been selected to receive the 2001 Midwest Award of the American Chemical Society. The Midwest Region consists of Arkansas, Iowa, Missouri, Kansas, Nebraska, South Dakota, and southern Illinois. Nair will receive the award on October 11, 2001, at a banquet in his honor at the 36th Midwest Regional Meeting of the ACS.

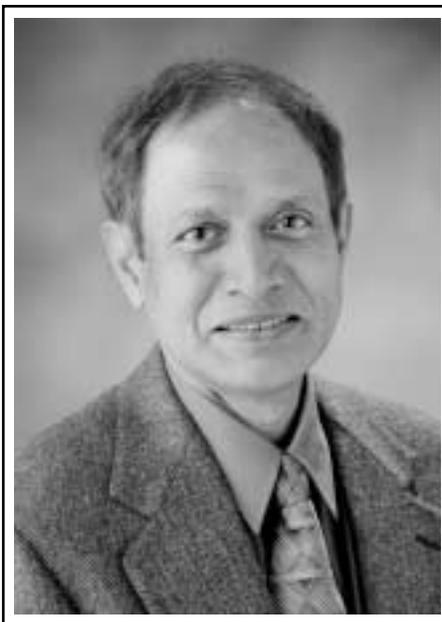
Nair received his Ph.D. degree in Natural Products Chemistry in 1966 from the University of Adelaide in Australia. Postdoctoral fellowships followed with Professor Nelson Leonard of the University of Illinois in 1967-68 and with Professor R.B. Woodward of Harvard University in 1968-69. Nair joined the faculty of the University of Iowa during the 1969-70 academic year as an Assistant Professor. Since 1993, he has been University of Iowa Foundation Distinguished Professor of Chemistry.

In a career that spans three decades at the University of Iowa, Vasu Nair and his coworkers have made seminal contributions in the synthetic organic chemistry of heterocyclic compounds, in particular the synthesis of nucleosides, nucleotides and their analogs.

In recent years, Nair has put this expertise to good use by directing a program of synthesis and evaluation of inhibitors of the viral enzymes reverse transcriptase and integrase.

The Nair group has synthesized and evaluated dideoxynucleosides and -nucleotides that are potent in-

hibitors of HIV reverse transcriptase and that show clinical promise in the treatment of AIDS. They have been among the world leaders in the synthesis of compounds that potently inhibit another important HIV target, the integrase enzyme. This work, which was first reported in the *Journal of the American Chemical Society* [122, 5671-5677 (2000)], is a notable achievement, as few groups have any success in inhibiting this enzyme. The potential is obvious for use of integrase inhibitors in combination therapies for combating HIV.



Vasu Nair

Vasu Nair's teaching efforts match his commitment to research. He is renowned at the University of Iowa as a popular and effective teacher of undergraduate organic chemistry.

Chemical Bond

Volume 52

No. 8

November, 2001

The *Chemical Bond* is published in January through May and September through December by the St. Louis Section–American Chemical Society. It is mailed free of charge to members of the section at their address on file at ACS National Headquarters. Changes of address for members will be made automatically upon notification to National ACS Headquarters; send old and new address with zip codes to ACS Subscription Service Department, 1155 16th St. N.W., Washington, DC 20036 or visit www.acs.org and find Members Only | Online Address Update. Allow eight weeks for change to take effect.

The domestic subscription rate for non-members/affiliates is \$8.00 per year. Subscription orders and changes of address for non-members/affiliates should be mailed to Editorial Production Office, 125 West Argonne Drive, St. Louis, Missouri 63122 or e-mailed to the Editor.

Editor	Eric Ressner	314-962-6415 (H) 314-286-6600 x2199 (O) ressner@worldnet.att.net
Advertising Manager	Sue Saum	636-949-4735 saum@lc.lindenwood.edu
Business Manager	Donna Friedman	314-595-4388 dfriedman@stlcc.cc.mo.us
Staff Writers	John Bornmann	636-946-5161 jbornmann@msn.com
	Brian Schiller	618-345-0481
World Wide Web		http://www.umsl.edu/~acs
Webmaven	Lisa Balbes	lisa@balbes.com

*Correspondence, letters to the Editor, etc., should be sent to
St. Louis Section–American Chemical Society
125 West Argonne Drive, St. Louis, MO 63122*

Copyright © 2001 American Chemical Society and the St. Louis Section–ACS

In this issue	2	Meet Vasu Nair, 57th Midwest Awardee
	4	Meetings and Seminars
	5	ACS 125th Birthday Celebration ... final notice
	6	Letters Words & More
	8–9	Candidate Bios (get out and vote)
	11	Two Opportunities for National Chemistry Week
	13	St Louis Wins Outstanding Large Section for 2000
	14	High School Teaching Award: Nominate Yours?

Meeting & Seminars

Board of Directors

St. Louis Section-ACS Board of Directors meets the second Thursday of each month at the Alumni Center, University of Missouri-St. Louis. Meetings are open to all members, and all are encouraged to attend. Elected officers and chairs of major committees have the right to vote; others in attendance have voice but no vote.

Date: Oct 18

(note: this is the *third* Thursday)

Social hour: 5:30 pm

Dinner: 6:30 pm

Business meeting: 7:15 pm

Future meetings: Nov 8, Dec 13
(Continuity Dinner)

Saint Louis University

Seminars start at 3:30 pm in Room 204 Macelwane Hall. Coffee and doughnuts before the seminar; refreshments after in Room 115 Monsanto Hall. For more information, contact Dana Spence, spenced@slu.edu or call 314-977-2836.

Wednesday, November 7

Dr. Scott Gilbertson

Washington University

TBA

Wednesday, November 14

Dr. Frank Bright

SUNY-Buffalo

TBA

University of Missouri- St. Louis

Refreshments at 3:45; seminars at 4 pm in B-451 Benton Hall. For fur-

ther information, Contact Prof. Keith Stine, 314-516-5346, kstine@jinx.umsl.edu.

Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. Coffee is available outside the seminar room 20 minutes prior to the talk, and refreshments follow.

Computational Chemistry Discussion Group

Locations vary, but the time is generally 5:30 for refreshments, and 6 pm for the talk. For more information, contact Marcia Fenley, 314-862-0451, sfenley@artsci.wustl.edu or Philippa Jayatilleke, 314-647-1099, pjayat@tripos.com

Environmental Science/Technology Discussion Group

Contact Dr. Kwok-Keung Au ("Amos") for information: call 618-239-0547 or e-mail amos@bellevillelab.com

NMR Discussion Group

All seminars are in 241 Compton, Washington University. For more info, call Mark Conradi at 935-6418 or 935-6292. Seminars are followed

POLYMER STANDARDS FOR GPC/SEC
MOLECULAR WEIGHT ANALYSIS
GPC/SEC COLUMN REPACKING

American Polymer Standards Corporation
8680 Tyler Boulevard, Mentor, OH 44060
Phone: 440-255-2211 Fax: 440-255-8397

by an informal discussion over
beer, soda, and chips.

October 23

3:45 coffee, 4 pm seminar

Prof. Andrew Webb

University of Illinois–Urbana
Dept. of Electrical and Computer
Eng. and Beckman Inst. for
Advanced Science and Technology
*Development and Applications
of Miniature Radio Detectors*

Nov 13

3:45 coffee, 4 pm seminar

Prof. Peter Rinaldi

University of Akron
Subject is NMR of Polymers;
title to be announced

ELEMENTAL ANALYSIS

C, H, N, O, S, P • Halogens • Ash • Metals
TOC • TOX • BTU • Molecular Weights
ICP • ICP/MS • IC
Custom Analysis • Problem Solving

HUFFMAN

LABORATORIES, INC.
Quality Analytical Services Since 1936

4630 Indiana Street • Golden, CO 80403
Phone: (303) 278-4455 • Fax: (303) 278-7012
Chemistry@huffmanlabs.com
www.huffmanlabs.com



AMERICAN
CHEMICAL
SOCIETY
1876–2001



Join the celebration of the ACS's
125th birthday

Friday, October 5

4–7 pm

Kemoll's Restaurant

1 Metropolitan Square, St Louis

Open bar, hors d'oeuvres,
remarks, coffee & cake

\$10 per person at the door

What's it to be this time?

by Jack Bornmann

Someone told me that he liked to read "Letters, Words and More" because he never knew what I was going to write next. That offers me a challenge. I am going to write about Social Security.

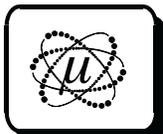
Letters & More

Social Security has been a part of life since the 1930s when it was enacted under President Franklin Delano Roosevelt. At its start there were people who received a retirement check without depositing a single dollar into their account. The money they received came from those lucky ones who had jobs. It was and is a "pay-as-you-go" system, not a deposit account system for those working.

Not everyone liked the Social Security system. Some disliked it because it had been FDR's program. There was one man in my home town who gave a different Social Security number every time he was asked. He was showing his contempt for Roosevelt. However, years later when he was ready to retire, he was struggling to remember all those numbers he had used. Sounds a lot like that story of W.C. Fields who opened new bank accounts in each town he visited.

Now suppose you made a contribution of \$100 to Social Security. Money deposited into the Social Security system goes into the general operating fund of the United States Government and that is where your \$100 would go. Your \$100 is commingled with all the other government income to pay salaries and expenses for govern-

see **What's it to be**, p. 10



micron inc.

Analytical Services

Complete Materials Characterization

Morphology Chemistry Structure

SEM - TEM - EPA - ESCA - AUGER
XRF - XRD - FTIR - DSC - TGA

3815 LANCASTER PIKE, WILMINGTON DE. 19805
PHONE 302 - 998 - 1184, FAX 302 - 998 - 1836
E-MAIL MICRONANALYTICAL@COMPUSERVE.COM
WEB PAGE WWW.MICRONANALYTICAL.COM

Meet the Protectors of Vacuum Pumps, Systems and the Environment!



- MV Products offer you a full line of Oil Mist Eliminators, Vacuum Inlet Traps, Oil Filtration Systems and other quality vacuum products designed to assure your vacuum pumps a long life and you a clean and healthy environment.
- MV Oil Mist Eliminators remove oily haze from vacuum pump exhaust, protect the surrounding areas and the room air you breathe.
- MV Vacuum Inlet Traps protect your vacuum pump from corrosive and abrasive elements and can be tailored to your specific application requirements.
- Oil Filtration Systems remove acids, corrosives and contaminants from pump fluids thus reducing maintenance cost and prolong pump life.

Other Quality Vacuum Products



Vacuum Degassing Chambers



Central Source Vacuum System



Filters

FOR MORE INFORMATION ON THESE AND OTHER FINE VACUUM PRODUCTS CONTACT



PRODUCTS

A DIVISION OF MASS-VAC, INC.

247 RANGWAY ROAD, P.O. BOX 359 NO. BILLERICA, MA 01862-0359
TEL (978) 667-2393 FAX (978) 671-0014 E-mail sales@massvac.com

Nominees for Office – 2002 St. Louis Section–ACS

The Nominating Committee presents the following candidates for office to the St. Louis Section–ACS for 2002. Their professional affiliations and prior service in ACS offices, local and national, are listed as specified in the Section By-laws.

All members of the St. Louis Section are eligible to vote. Please mark the enclosed ballot, following the instructions printed on the reverse side, and return no later than October 31, 2001. Ballots post-marked after that date will not be counted.

Chair-Elect (vote for one)

Leah O'Brien, Professor of Chemistry, Southern Illinois University–Edwardsville – Midwest Award Committee chair (1999, 2000); Women Chemists Committee chair (1997-2001).

Secretary (vote for one)

Keith Stine, Associate Professor, UM–St. Louis – Midwest Award subcommittee chair (1993); St. Louis Award subcommittee chair (1998-2000); Midwest Regional Meeting Program chair (2000); Surface Science Discussion Group subcommittee chair (1993-1999); Materials Chemistry Discussion Group subcommittee chair (2000); Director (2001); Career Day co-chair (2001).

Treasurer (vote for one)

Pauline Bellavance, Professor of Chemistry, Fontbonne College – Minutemen chair (1985), Business Manager, *Chemical Bond* (1986-

1994), Steering Committee (1994), Treasurer (1995-1998), Section Chair (2000), Steering Committee (1999-2001).

Directors (vote for three)

William H. Doub, Research Chemist, Methods Research Branch, Food & Drug Administration – Membership chair (1998), *Chemical Bond* Business Manager (1998), Investment Committee (1998), Director (1996-1998), St. Louis Award chair (1981, 1997), Treasurer (1993-1994, 1999-2001), Midwest Award chair (1981), Alt. Councilor, Awards Committee chair (1992), Program Committee chair (1991, 1995), High School Program Committee, *Chemical Bond* photographer

Samir El-Antably, Founder and President, Camela Medical Equipment Company – Chair of several committees; Director; Alternate Councilor; Section Chair (1982); St. Louis Section Distinguished Service Award recipient (1996).

Gerard Moskowitz, Manager, Commercial Development, Particle Dynamics, Inc. (a division of KV Pharmaceuticals) – Membership chair, Milwaukee Section (1984-85); Chemical Progress Week Coordinator (1995); Secretary (1996-2000).

Alexa Serfis, Assoc. Prof. of Chemistry, Saint Louis University – Alternate councilor (1998-2001); Science Fair judge (2000) and as Awards chair (2001); National Chemistry Week demonstrator (1994-2000) and coordinator (1994,

2001). Organized the undergraduate activities at the Midwest Regional Meeting in St Louis (2000); hosted the Undergraduate Research Symposium at SLU in 1999.

Councilor
(vote for two)

Lawrence Barton, Professor of Chemistry, UM–St. Louis – Section Chair (1980); a long-time Councilor.

Tom Layloff, Principal Program Associate in the Center for Pharmaceutical Management, Management Sciences for Health – Councilor (1987-2001); Midwest Award Jury (1980-83, 1987-2001); Alternate Councilor (1978-86); ACS National Meeting Organizing Committee (1984); Director (1974-76, 1978-79, 1981-84); 75th Anniversary Program chair (1982); Nominating Committee (1978, 1980, 1981); Centennial Committee chair (1975-76); Section Chair (1973); Professional Activities Committee chair (1971); Crime Lab Advisory Committee chair (1969-71); Community Relations Committee chair (1970); Program Committee chair (1969); General Program chairs (1968); Education Committee Long Range Planning Group (1967); Meeting Regional Meeting Steering Committee (1977-94), Local Arrangements Committee chair (1971), General Chair (1979, 1989).

Service at the national level: Council Policy Committee (1988-89, 2000-2001); Membership Affairs Committee (1999-2000); Local Section Activities Committee (1987-88), Associate (1996-99); Meeting and Expositions Committee (1990-95); Regional Meetings Subcommittee chair (1990-91); Expositions Sub-

committee chair (1992-95); Task Force on Establishing Mentoring Programs for Minorities and Women (1996-98); Task Force on Environmental Analyst Accreditation (1996-98); Local Section Development Subcommittee (1987-88); SCICOM Task Force on Non-Publication Scientific Communication (1979-80).

Alternate Councilor
(vote for two)

Karl Markl, analytical chemist and research manager, Anheuser-Busch (retired) – Membership subcommittee chair (1990), Professional Activities chair (1991), Secretary (1992-1998), Section Chair (1998), and Director (1999-2001).

Greg Wall, Research Consultant, Technical Service, Sigma-Aldrich Corporation – General Topics Chair (1992-3; 1997-2001); Program Committee Chair (1994); Section Chair (1995); Speak Out: Our Chemical World (1995-2001); Kids & Chemistry Consultant (1995-2001); National Chemistry Week Co-chair (1999); National Chemistry Week Chair (2000).

J. Edmund “Jed” White, Professor of Chemistry, SIU–Edwardsville (retired) – has served on several national committees of the ACS Division of Chemical Education. In the St. Louis Section, Jed has served as chair of both the St. Louis Award and the Midwest Award and of the Awards, Education, and Program Committees. He was Secretary for 3 years and Section Chair (1995).

What's it to be, from p. 6

ment operation. In addition it is used to build dams, bridges and superhighways to rural towns where congressmen live. There probably is an accountant someplace who keeps a ledger on how much money came from Social Security contributions, but it all gets mixed together.

Suppose we kept the Social Security contributions in a separate place. And let's continue to suppose that after issuing monthly checks we have money left over. What shall we do with this surplus? Forget about a refund. We are going to need this money later, so we need a place to park it now, a place where the money is safe and can grow. Forget about war bonds from terrorist countries; forget high-interest bonds from unstable governments. Notes, bills and

bonds from our own United States government are recognized the world over as the safest and most stable investment instruments. Besides, if the U.S. government fails, we will have no Social Security system.

OK, it's agreed. We hand over our money to the U.S. government and receive a certificate. What will happen to the money? It will be spent for dams, bridges and superhighways. It doesn't matter whether you hand the money over directly as Social Security taxes or "invest" it in the government indirectly by buying a bond.

Twenty years from now when the bond reaches maturity and perhaps you are ready to retire, the matured bond is presented to government and we ask for our money back. TS (tough situation)! Did you think that our government was going to put cash into a huge safe

OUTSTANDING PEOPLE

Lab Support® is the leader in the scientific professional staffing industry. We specialize in placing qualified degreed scientists on short- and long-term assignments in laboratories in over 50 major markets throughout the United States and Canada.

All of our Account Managers make "Quality Assignments" because they have a background similar to that of our clients and our employees.

*If your company is looking for outstanding lab personnel
or if you're an outstanding scientist seeking a new career
offering variety, opportunity and a great benefit package,
call Lab Support® today.*

St. Louis (314) 434-4414
Nationwide (800) 998-3332

www.labsupport.com

On Assignment



LAB SUPPORT®
Science Professionals On Assignment



deposit box just waiting for us to ask for it back? No way, it will be spent. If we get our money back, it will be coming from the general income fund i.e. taxes, fines and other sources of government income. I guess we will have to raise taxes to pay back what you gave 20 years before as a Social Security tax. You will be taxed twice!

Perhaps we will be better off investing the Social Security surplus in stocks. But which stocks and how many shares of each? Government investments are fraught with problems. Can you imagine the Pentagon being forced to choose the joint strike fighter on the basis of which company the government had invested our Social Security surplus? To be perfectly fair we could set up the United States Social Security Mutual Fund with investments in every stock company in the United States. Even the penny stocks? Even the dot.com stocks?

Where would you put the Social Security surplus? Write to me at jbornmann@msn.com.

NMR ANALYSIS

270 - 360 - 400 MHz • 1D/2D
Liquids/Solids • GLP/GMP Compliance
SPECTRAL DATA SERVICES, INC.
818 Pioneer • Champaign, IL 61820
(217) 352-7084 • Fax (217) 352-9748
<http://www.sdsnmr.com> sdsnmr@sdsnmr.com

Two For NCW 2001

As National Chemistry Week 2001 approaches here are two opportunities to help spread the good word about chemistry to the good people of St Louis:

1 ACS Day at the Science Center will be Saturday, November 10. We need volunteers for chemical demonstrations, the exposition (industrial and academic groups invited), and to hand out flyers and get the word out on the day of the event. If you or your group would like to participate in any NCW activities please contact:

Alexa Serfis
Saint Louis University
314-977-2842 or
barnoski@slu.edu

2 The Battle of the Burets is one of the traditional highlights of National Chemistry Week in St. Louis. Teams of students from area high schools compete in a test of titration speed and accuracy.

This year the event will begin at 6 pm on Wednesday, November 7th, at St. Louis Community College-Florissant Valley. For more information or to register a team, please contact Bruce Ritts at 314-535-1383.

Chemical Analysis Services

- ▲ Materials Identification and Deformation
- ▲ Product Defects / Failure Analysis
- ▲ Thermal and Physical Testing (ASTM)
- ▲ Polymer Analysis and Testing



Chemir / Polytech (800) 659-7659
Laboratories, Inc.
Since 1957
2670 Metro Blvd. Maryland Heights, MO 63043
chemir.com



ANALYTICAL CHEMISTS - ALL LEVELS

QUINTILES is the world's leading full-service contract research organization specializing in accelerating the drug, biologic and device development process from pre-clinical studies through regulatory submission. At Quintiles Kansas City (home to 900+ employees) we are expanding our Analytics group within the Preclinical & Pharmaceutical Services division. This organization provides discovery support and early development services based on state-of-the-art facilities and globally recognized expertise in the areas of pharmaceutical sciences, toxicology, pharmacology, drug metabolism and pharmacokinetics. We have opportunities available at entry through advanced level positions for individuals with B.S., M.S. or Ph.D. in chemistry, biology, biochemistry or related fields.

In a Chemist role, you will work in one of several cGMP analytical laboratories on pharmaceutical development projects. Duties vary with position and section, but will include analytical method development and validation for active pharmaceutical ingredients and drug product (small & large molecule), clinical release testing and/or stability and dissolution testing. A solid knowledge of analytical techniques, especially in chromatography is required. The ability to maintain clear and accurate records, efficiently communicate and work well with cross-functional team members is essential. Organization, documentation and computer literacy skills are a must.

Quintiles offers competitive salaries & excellent flexible benefits. Candidates should submit resume to www.quintiles.com (Careers, Find a Job, United States, then job ID #). If 1-3 years experience, submit to Job ID # 1984; if PhD or 8+ years experience, submit to Job ID #1985. If unable to apply online, please send resume to

QUINTILES INC.
attn: B3-M4964/BJB
PO Box 9708
Kansas City, MO 64134

An Equal Opportunity Employer M/F/D/V

STL-ACS: Another Blue Ribbon Year

The St. Louis Section was nominated for three ChemLuminary Awards for 2000:

- Most Unique Demonstration Program for National Chemistry Week
- Best Single Event in a Local Section Promoting Women in Chemistry
- Outstanding Performance Award, Large Section Category

Nomination is honor enough, but we triumphed in one of the categories. At the ChemLuminary Awards Celebration of the ACS National Meeting in Chicago, the

St. Louis Section was presented with

... drum roll, please ...

the Outstanding Performance Award. Accepting the award was Pauline Bellavance, the 2000 Section Chair. Pauline also presented a poster highlighting the events that garnered the nominations.

Well-deserved thanks and congratulations go to Pauline and all who were involved in the events that were nominated.



Dr. Pauline Bellavance (left) receives the Award for Outstanding Performance by a Large Local Section at the Chicago National ACS meeting ChemLuminary Awards. Dr. Attila Pavlath, ACS President, is presenting the award. At the podium is Kathleen Schulz, Chair of the Local Section Activities Committee.

Call for Nominations - High School Chemistry Teaching Award

The St. Louis Section of the American Chemical Society is seeking nominations for the High School Chemistry Teaching Award. The award winner will receive a \$500 check and a plaque presented at the awards program next April. The St. Louis Section Award Winner will be the Section's nominee for the Midwest Regional Award in High School Chemistry Teaching and the ACS James Bryant Conant Award.

Please consider nominating a teacher in the greater St. Louis area who exemplifies excellence in teaching high school chemistry. Self-nominations are also strongly encouraged. In addition to outstanding classroom work, the nominee should be one who has contributed successfully in other aspects of teaching, such as professional growth, curriculum development, developing course materials, workshop participation, chemical or educational research, publications, and other activities.

The nomination packet must contain the following items:

1. Your letter of nomination, which should include information on the qualifications of the nominee with respect to:
 - a. The quality of the nominee's classroom teaching.
 - b. The ability to motivate and challenge students.
 - c. Extracurricular work with students in chemistry, including science fairs and student projects.
 - d. Efforts made to keep current with developments in chemistry and in teaching through professional activities and continuing education.
 2. Two letters seconding the nomination from anyone that you consider appropriate, such as a science colleague, a principal, a former student, or a parent of a former student.
 3. The official nomination form, which provides background biographical and educational data on the nominee. Contact Virginia Kirwin for a copy of the form.
- To submit a nomination, please return the nomination folder by November 15, 2001 to:
- Virginia Kirwin
974 Century Oaks Drive
Manchester, MO 63021
636-225-5513
vkirwin@mindspring.com

St. Louis Section
American Chemical Society
125 West Argonne Drive
Kirkwood, MO 63122

Non-Profit U.S. Postage PAID St. Louis, MO Permit No. 850

Rush—Dated Material Inside

Pick up

Sigma ad

from back cover

May 2001 issue