

TTU Professors Serve as NSF Program Directors

TTU Chemistry and Biochemistry professors **Carol Korzeniewski** and **David Nes** spent academic year 2003-04 working as Program Officers at the National Science Foundation in Washington, D.C. **Allan Headley** did the same thing in 2002-03. David will continue his appointment for the 2004-05 year as well.

Carol's position was with the Analytical and Surface Chemistry (ASC) Program in the Chemistry Division at NSF. ASC is one of the Chemistry Division's core programs. As an ASC Program Officer, Carol participated in several joint projects and focused in particular on those aimed at enhancements for science education.

Carol explains, "Other core programs are in the areas of organic, physical and inorganic chemistry. Proposals can be submitted to these programs during a six-month period between July and January, and the review and award processes take place throughout the full year."

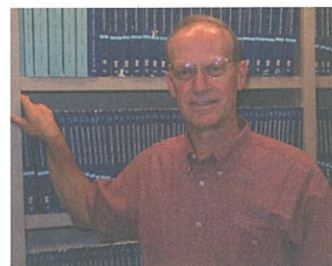
In addition to the core, the Chemistry Division participates in at least 30 other programs. These tend to be interdisciplinary in nature and cut across divisions in the Mathematical and Physical Sciences Directorate as well as other NSF Directorates, including Education and Human Resources, Engineering, Geosciences and Biological Sciences. Program Officers assigned to core programs are frequently engaged in the activities of these special project areas.

In addition to handling the review of proposals, Program Officers also organize and participate in workshops, which bring together experts in an emerging area from all corners the scientific community to discuss directions, needs and means to facilitate progress. Carol participated in workshops focused on mass spectrometry and emerging spectroscopic methods that are having impact on physics, materials science, chemistry and medicine.



TTU Chemistry & Biochemistry professors (l to r) **Carol Korzeniewski**, **David Nes**, and **Allan Headley** served as program officers at the National Science Foundation in Washington, D.C.

New Welch Professor, Five New Faculty Arrive in 2004



William L. Hase
Robert A. Welch Professor

In January 2004, **William L. Hase** (pronounced hah-sah) joined the departmental faculty as the Robert A. Welch Professor of Chemistry. Bill received his B.S. (1967) from the University of Missouri-Columbia and his Ph.D. (1970) from New Mexico State University. Following postdoctoral positions at New Mexico State University (1970-71) and University of California-Irvine (1971-73), Bill began his academic career at Wayne State University in 1973.

The Hase Group has published over 200 articles and seven reviews; Bill has authored or co-authored 25 books and book chapters. Awards given to Bill include the Academy of Scholars at Wayne State, Fellow of the American Physical Society, and Fellow of the American Association for the Advancement of Science.

Bill's research focuses on simulating the dynamics of molecular motion and chemical reaction at an atomistic, microscopic level. Classical, semi-classical, and quantum mechanical methods are employed for the simulations, which are used to compare with experiment and to test and develop theoretical models of molecular motion and chemical reactivity. Computer graphics are then used to animate and visualize the simulations.

Bill is married to Dr. Alice Young, a psychologist, who has a joint appointment with the TTU Department of Psychology and the TTU-HSC Medical School's Department of Pharmacology.

(New Faculty continued on page 2)

(New Faculty continued)



Louisa Hope-Weeks
Inorganic
Assistant
Professor

Louisa received her B.Sc. with a 1st Class Honors from the University of Hertfordshire, UK (1997) and her Ph.D. from Cambridge University, UK (2000). She then worked as a postdoctoral researcher at Lawrence Livermore National Laboratory in the advanced materials synthesis group (2001-2002). Most recently, she has been a staff chemist with the Bioorganic Synthesis and Protein Chemistry group at LLNL.

Louisa's research interests include inorganic materials synthesis and surface functionalization. In particular, she is interested in the development of low dimensional solids and sol-gel materials for advancing technologies such as sensing and catalysis.

She joins the TTU faculty in September 2004 along with her husband, Brandon Weeks, assistant professor in the Department of Chemical Engineering. They have 3 children, 4-year-old twins Cormak and Ethan, and a 1-year-old daughter, Keeva.

Michael Mayer
Organic
Assistant
Professor



Michael received his B.S. from the University of Wisconsin-Oshkosh (1994) and his Ph.D. from the University of Wisconsin-Milwaukee (2000). He then held a postdoctoral position at the University of Illinois at Urbana-Champaign from 2001-2004, during which time he received the Ruth L. Kirschstein National Research Service Award from NIH.

Michael's research interests include reaction methodology, catalysis, self-assembly, and macromolecular/nanoscale chemistry. In particular, the goal of one project is to develop new catalytic reaction processes where multiple catalysts are used simultaneously to allow an efficient cascade of chemical reactions within a single reaction vessel.

Michael is married to Fay Mayer. They have two children, Annabelle (4) and Leopold (2).



Satomi Niwayama
Organic
Associate
Professor

Satomi received her Ph.D. from the University of Tokyo, Japan (1989) and then held a postdoctoral position at The Ohio State University (1989-1990), and Research Associate positions at UCLA (1990-1995) and MIT (1995-1998). She has been presented with several awards: National Science Foundation-CAREER (2003-2008); Banyu Award in Synthetic Organic Chemistry (Japan, 2002); and Morita Science Research Promotion Award (Japan, 2000).

Satomi's research focuses on development of synthetic methodologies and application of small organic molecules to solving biological problems. Specific problems include desymmetrization of symmetric diesters, and development of a proteomic methodology for quantitative protein/peptide analysis.

Prior to joining the TTU faculty in 2004, Satomi was an Assistant Professor at Oklahoma State University (1998-2004).

Huazhong Shi
Biochemistry
Assistant
Professor



Huazhong received his M.S. from Central China Normal University (1989) and his Ph.D. from Wuhan University, China (1995). He has held postdoctoral positions at University of Arizona (1999-2001), University of California at Davis (2001-2002), and Purdue University (2003-2004). He received awards from USDA/SBIR as a PD (2004) with cooperation of FuturaGene Inc. and USDA/NRI as a Co-PD (2004-2008).

Huazhong's research interests include molecular mechanisms of plants in response to abiotic stresses, signal transduction of salt stress, and signaling cross-talk between stresses and hormones. In particular, he is interested in the regulation of mRNA stability mediated by salt stress and in the transport systems controlling ion homeostasis under salt stress.

Huazhong is married to Qing Feng. They have 2 children, a 13-year-old son and a 3-year-old daughter.



Joachim Weber
Biochemistry
Assistant
Professor

Joachim received his Diploma in Biochemistry (equivalent to M.S.) from the Technical University of Hannover and Medical University of Hannover, Germany (1980), and his Ph.D. from the Medical University of Lübeck, Germany (1990). He then held a postdoctoral position at the University of Rochester, NY (1990-1995). Most recently he has been a Research Assistant Professor at TTU's Health Sciences Center.

Joachim was awarded the Annual Prize of the Faculty for Science of the Medical University of Lübeck, Germany (1990) and he received a Postdoctoral Research Grant from the German Research Society (DFG, 1990-1991).

Joachim's research interests include ATP synthase, the world's smallest rotary motor; mutational analysis of enzymatic function; and biophysical chemistry.

Joachim is married to Dr. Ina Urbatsch, Assistant Professor of Cell Biology and Biochemistry at the TTU Health Sciences Center. They have 2 children.

Check Out Our Web Page!

[www.depts.ttu.edu/
chemistry](http://www.depts.ttu.edu/chemistry)

Who Else is "v" (That's c/ λ of course!) on the Faculty?

In addition to the six new tenure-track faculty, we are pleased to announce the addition to our faculty of Dr. Michael Jones, Instructor, Undergraduate Advisor, and General Chemistry Coordinator; Dr. Jess Jones, Dr. Christopher Truitt, and Mr. Howard Vogel, Visiting Assistant Professors; and Dr. Zhengrong Li and Mr. Pramod Chopade, Instructors.



Pramod Chopade
Instructor

Pramod will receive his PhD in Chemistry (organic) from Texas Tech University in December 2004, completed under the mentorship of **Robert Flowers** and **Guigen Li**. Beginning in the Fall 2004 semester, Pramod will be an Instructor in the Organic Chemistry program.

Pramod is married to Li Li, who received her M.S. degree from TTU in 2003 (under **David Birney's** guidance) and is now studying for her Ph.D. at Purdue University. They have a daughter, Catherine, age 17 months.



Michael Jones
Instructor, Undergraduate Advisor & General Chemistry Coordinator

After earning his B.A. (chemistry) degree in 1980 from McMurry College in Abilene, Texas, and his Ph.D. (organic) from Texas A&M University in 1988, Michael worked as Associate Professor of Chemistry at Hardin-Simmons University in Abilene, Associate Professor of Chemistry at New Mexico Military Institute in Roswell, and as Lab Safety Manager at the TTU Health Sciences Center.

Michael is married to Kathy, Assistant Advisor for Graduate Programs in the Department. They live with a dog and a cat (who own the house) and have fostered three rescued Rottweilers for adoption in the last three years.



Christopher Truitt
Visiting Assistant Professor

Chris received B.A. (chemistry) and B.S. (biology) degrees in 1999 from Adams College in Colorado, and a Ph.D. in Chemistry (biochemistry) from Texas Tech University in December 2003 with **Paul Paré**. He has been a Visiting Assistant Professor in the Department since Spring 2004. As a graduate student, he assisted with the Welch Summer Scholar Program and now serves as WSSP Coordinator at TTU.

Chris is married to Christina, a former stockroom worker in the Department, who received her B.S. in Human Development and Family Studies from TTU in 2002.

Jess Jones
Visiting Assistant Professor



Jess received his Ph.D. in Chemistry (inorganic) from Texas Tech University in May 2004, under the mentorship of **Dominick Casadonte**. Beginning in the Fall 2004 semester, Jess will teach CHEM 1301: Introductory Chemistry in the General Chemistry program.

Zhengrong Li
Instructor



Zhengrong received his Ph.D. in Chemistry (inorganic) from Texas Tech University in December 2002, under the mentorship of **Bruce Whittlesey**. He then held a postdoctoral position in **Dominick Casadonte's** lab. Beginning in the Fall 2004 semester, Zhengrong will be an Instructor in the General Chemistry program.

Howard Vogel
Visiting Assistant Professor



Howard will receive his Ph.D. in Chemistry (analytical) from Texas Tech University in December 2004, completed under the mentorship of **Richard Bartsch**. Beginning in the Fall 2004 semester, Howard will be an Instructor in the General Chemistry program.

Howard is married to Kena, his high school sweetheart. They have a daughter, age 21, who is on an 18-month mission trip in Mexico; a son, age 19, who is starting college this fall; and another daughter, age 4, who gets to stay home from school for one more year.

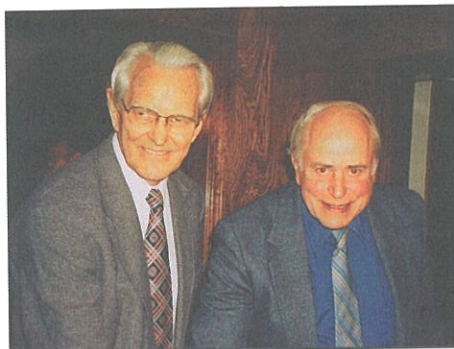
Retirements

Professor **John N. Marx** has retired from the Department after 37 years of service at TTU. After receiving his B.S. from St. Benedict's College in Kansas (1962) and his Ph.D. from University of Kansas (1965), John taught in rural Nebraska grade schools, then held postdoctoral research positions at Cambridge University and Johns Hopkins University before joining the TTU faculty in 1967.

While at TTU, John taught undergraduate and graduate courses in organic chemistry, natural products, photochemistry, stereochemistry and spectroscopic analysis. He also served as Coordinator of Organic Labs for 13 years. Since 1980, he has been Membership Chairman of the American Chemical Society, and since 1982 has served as Treasurer of the South Plains Section of the ACS. Seven M.S. students and 13 Ph.D. students have graduated under his mentorship.

John's primary research interest is the total synthesis of natural products. In addition, he does substantial collaborative work in such diverse fields as pharmaceutical research and custom syntheses of analytical reagents. He has published 48 scientific articles on his research.

John will continue to teach Organic Chemistry as a Visiting Associate Professor through the Fall semester of 2004. He and his wife Pat, an Associate Librarian at TTU, plan to travel some after they retire. They are both very active in the Boy Scouts of America program. John also has a website, Marxbooks.com, where he sells collectors books.



Dick Redington (l) and John Marx cut the cake at their retirement party.

Professor **Richard L. Redington** also retired from the Department after 37 years of service at TTU. Dick received his B.A. from the University of Minnesota (1955) and his Ph.D. from the University of Washington (1961). Before coming to TTU in 1967, he was a Fellow in Fundamental Research for three years at the Mellon Institute (now Carnegie-Mellon University) in Pittsburgh and then Assistant Professor of Chemistry at Utah State University for three years.

At TTU, Dick taught undergraduate and graduate courses in physical chemistry and most years also taught general chemistry (CHEM 1307-08 and predecessors). His research emphasizes applications of spectroscopy and quantum mechanical computation to gaseous, solvated, and matrix-isolated molecules for the determination of properties including molecular geometries, potential energy functions, and hydrogen bond dynamics. The program drew support from five federal agencies and the Welch Foundation, led to more than 50 scientific publications, and to sabbaticals and summers spent as a visiting scientist at MIT. Student participation was at all levels (undergraduate, graduate, post-doctoral, visiting faculty) with 1 M.S. and 5 Ph.D. degrees awarded. He will continue research with his wife Theresa and collaborators from the Pacific Northwest National Laboratories.

Other Faculty Departures

- * Visiting Assistant Professors **Ron Erickson** and **Akbar Salam** left TTU in September 2003.
- * Professor **Darryl Bornhop** left TTU in September 2003 for Vanderbilt University in Nashville, Tennessee.
- * Professor **Robert Flowers** and Undergraduate Advisor/General Chemistry Coordinator **Rebecca Miller** left TTU in January 2004 to move to Lehigh University in Pennsylvania.
- * Professor **James Harman** left TTU in May 2004 to work in the financial advising sector.
- * Visiting Assistant Professor **Steve Tomlinson** moved to Wisconsin in May 2004 to work for Proctor & Gamble Pharmaceuticals.
- * Professor **Allan Headley** accepted an offer in June 2004 to become Dean of Graduate Studies and Vice President for Research at Texas A&M University-Commerce.
- * Professor **D. Max Roundhill** left TTU in August 2004 and now lives in Austin with his wife Stephanie.

Becky Miller (l) presented **Akbar Salam** with a "Goodbye, Good Luck" cake.



Allan Headley served as Associate Dean of the TTU Graduate School from June 1999 thru August 2004.

The Chair Conformation

As many of you noticed, there was no 2003 edition of the TestTube. Due to financial problems for TTU and the State of Texas, we were totally occupied with holding things together during 2003. Fortunately, 2004 has been a much better year for us and the future is even brighter.

In January, **Dr. William Hase** joined our faculty as the new Robert A. Welch Professor of Chemistry with a specialization in computational/theoretical chemistry. For Fall Semester 2004, five new junior faculty members have arrived: **Dr. Louisa Hope-Weeks** (inorganic and materials chemistry), **Dr. Michael Mayer** (organic chemistry), **Dr. Satomi Niwayama** (organic chemistry), **Dr. Huazhong Shi** (biochemistry), and **Dr. Joachim Weber** (biochemistry). In the 30 years I've been a TTU faculty member, this is the largest number of new faculty we have hired in a single year! We greatly appreciate the support we have received from the upper administration at TTU to make this possible.

Since publication of the last newsletter, several faculty members have been promoted. **Drs. David Birney, Dominick Casadonte**, and **Carol Korzeniewski** now hold the rank of Professor and **Dr. Robert Shaw** was promoted to Associate Professor. University-wide faculty recognition was received by **Dr. Dominick Casadonte** (TTU Parents Association Outstanding Teaching Award) and **Dr. David Knaff** (Barney Rushing Outstanding Research Award).

During this two-year period, three faculty members have been tapped by the National Science Foundation for service as program officers in Washington, DC. During 2002-2003, **Dr. Allan Headley** was in charge of the Graduate Fellowships Program. **Dr. Carol Korzeniewski** worked in the Analytical and Surface Chemistry Program in the Chemistry Division during 2003-2004. **Dr. David Nes** served as the Director for three different NSF programs (Metabolic Biochemistry, Molecular Biochemistry, and Sensors and Sensor Systems) for 2003-2004 and will stay on for 2004-2005. Clearly, NSF has a high opinion of the quality of our faculty.



During the 2003-2004 academic year, our extramural research support reached the \$4 million level for the first time. In addition to the awards for laboratory-type research projects in chemistry and biochemistry, **Dr. Robert Blake** received a large grant from the Texas Higher Education Coordinating Board to develop a training program for enhancing the proficiency of junior high and high school chemistry teachers in Texas. Also, **Dr. Dominick Casadonte** was awarded a large grant from the National Science Foundation to provide chemistry training for senior citizens, who will then assist elementary and middle-school science teachers and serve as mentors and role-models for disadvantaged students. This was one of the initial five grants nation-wide in the new NSF Discovery Corps Program. Our expertise in the area of chemical education is being recognized at the state and national levels!

Our efforts in teaching and research continue to be supported by an outstanding departmental staff. In the spring of 2003, **Cheryl Blasingame** and **Kathy Jones** were recognized at the university level with Quality Service Plus Awards. Then in the fall of 2003, **Cheryl Blasingame** received one of the five Top Techsan Awards for TTU staff members.

Special thanks to those of you who have provided financial support for our educational mission. Contributions to the Robinson Lectureship Series Endowment or the Shine Lectureship Endowment, as well as unrestricted departmental donations, are greatly appreciated.

Since education is our most important product, we really like to receive news from our graduates. Please remember to let us know of your next success!

Sincerely yours,
Richard A. Bartsch

Chair and Paul Whitfield Horn Professor

Song Dissertation Awards

The Song Dissertation Award, established by Professor **Pill Soon Song** when he left our department to become Chairman of the Department of Chemistry at the University of Nebraska, honors the graduate student who submits the best doctoral dissertation in Texas Tech's Department of Chemistry and Biochemistry in a given calendar year. The award includes a check for \$650.

The winner of the 2002 Song Dissertation Award was **Dr. Daniel Ta-Jen Chang** for his dissertation entitled *Quantum Mechanical Studies of Weakley Bound Molecular Ions*, which describes the research he performed under the direction of Professor **Greg Gellene** in the Physical Chemistry Division. Dr. Chang is currently at Pacific Northwest National Laboratory.

The winner of the 2003 Song Dissertation Award was **Dr. Rida Sadek Al-Horr** for his dissertation entitled *Advances in Ion Chromatography for Environmental Applications*, completed under the supervision of Professor **Sandy Dasgupta** in the Analytical Chemistry Division. Dr. Al-Horr now works at Dionex Corp.

The Fourth and Fifth Henry J. Shine Lectures

On November 5, 2002, Professor Barry Trost, from Stanford University, presented the fourth annual Henry J. Shine Endowed Lecture, entitled "*On Inventing Reactions for Atom Economy*". Professor Trost has authored over 670 scientific publications and has given numerous invited lectures at universities and at scientific meetings.



(l to r) **Guigen Li**, Barry Trost, **Henry Shine** and **David Birney** visit at the reception following the fourth Shine Lecture.

On October 6, 2003, Professor Dennis J. Curran, from the University of Pittsburgh, gave the fifth annual Henry J. Shine Endowed Lecture, "*An Introduction to Fluorous Synthesis: From Separating Mixtures to Making Mixtures*". Professor Curran gave an impressive survey of the exquisite control over solubility, reactivity, and separations that become possible when a fluorocarbon tail is attached to a substrate or a reagent. Professor Curran has authored over 260 papers, 12 patents and one book, and is the founder of Fluorous Technologies, Inc.



Dennis Curran (l) and **Dick Bartsch** at the fifth Shine Lecture. Over 100 people attended, including faculty, graduate students, and undergraduate students from Texas Tech and from as far away as Amarillo College.

Lectures such as the Shine Lecture are essential to the continued success of the Department, helping to provide the most stimulating scientific environment possible. This endowed lectureship was established in 1998 to honor **Professor Henry J. Shine** on his 75th birthday. Although retired from teaching, Dr. Shine continues to be active in research and has 50 years of continuous research funding from the Welch Foundation. Over the past several years, an impressive set of speakers have presented this lecture, including:

1999	Professor Clayton Heathcock, University of California, Berkeley
2000	Professor Peter Dervan, California Institute of Technology
2001	Professor Julius Rebek, Jr., The Scripps Research Institute
2002	Professor Barry M. Trost, Stanford University
2003	Professor Dennis C. Curran, University of Pittsburgh

The initial endowment for the Shine Lecture was funded by donations from a number of individuals; their generosity allowed us to begin this program with this impressive series of speakers. However, the endowment requires approximately \$10,000 in additional funds for us to continue to offer these outstanding lectures. Therefore, I ask you to consider making a generous donation to this lecture series. A donation of \$1,000 would go a long way towards meeting this need; however, any contribution you can make will be greatly appreciated and will be an investment in the future of students and faculty in the department.

Simply fill out the pledge form on page 23 and return it. To increase the impact of your gift, please check with your personnel office to see if you work for a matching gift company. All contributions are tax-deductible. Checks should be made payable to the *Texas Tech Foundation, Inc.* and designated for the *Henry J. Shine Chemistry Lecture Series Endowment*.

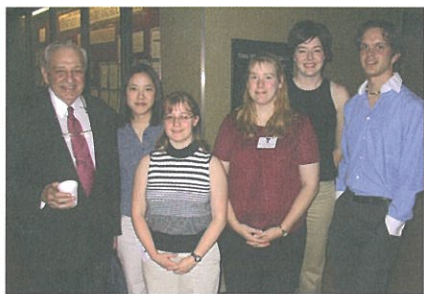
You are welcome to contact Professors **Dick Bartsch** (email ChemChair@ttu.edu) or **David Birney** (email David.Birney@ttu.edu) with any questions about this endowment program. Thank you in advance for your support.

David Birney, Professor

The G. Wilse Robinson Lectures

This annual lecture series was endowed by former students, colleagues and friends of **Professor G. Wilse Robinson**, Welch Professor of Chemistry at Texas Tech from 1975 until his death in September 2000.

The inaugural G. Wilse Robinson Lecture Series was presented May 5-6, 2003 by Professor Rulph A. Marcus, the Arthur Amos Noyes Professor of Chemistry at California Institute of Technology. The title of his public talk was "*Synergisms in Science: Theory and Experiment, Research and Teaching*"; his scientific lecture topic was "*Strange Isotope Effects in Ozone in the Stratosphere and in the Laboratory. Mass-independence and Mass-dependence*". Professor Marcus was awarded the Nobel Prize in Chemistry in 1992.



Professor Marcus (l) with visiting prospective students and faculty from Austin College.

The second annual G. Wilse Robinson Lecture Series was presented April 26, 2004 by Professor Dudley R. Herschbach, research professor (emeritus) at Harvard University. The title of his public talk was "*The Impossible Takes a Little Longer*"; his scientific lecture was "*Emulating Maxwell's Demon: Taming Molecular Wildness and Thwarting Thermodynamics*". Professor Herschbach was awarded the Nobel Prize in Chemistry in 1986.



Professor Herschbach (center) with TTU physical chemistry professors **Ed Quitevis** (l) and **Greg Gellene**.

Gift Acknowledgements

We express our appreciation for these donations and gifts:

To the ACS Student Affiliates:

\$501 - \$15,000

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To the Department:

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Dr. William W. Shumway	Mrs. Roseanne M. Woo-Haltresht

To The Welch Challenge:

\$1 - \$500

Mr. James L. Kelly	Mrs. Susan K. Kelly
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Dr. John M. Biltz, M.D.	Dr. William R. Laughlin
Dr. John W. Loudermilk, M.D.	

\$15,001-\$150,000

Don Kay Clay Cash Foundation

Mr. R. Don Cash

What's Been Going On? Staff Role Call

In the past two years, several staff members have left the department: **Karen Cantrell**, **Priscilla Jones**, **Kavin Morris**, **Natasha Morton**, **Kenneth Taylor**, and **Nina Pruitt**. Several new employees have joined our department: **Rhonda Green** is our receptionist, **Debbie Guerrero** is our stockroom specialist, and **Brandon Sheehan** is our shop mechanic.

Cheryl Blasingame and **Kathy Jones** received Quality Service Plus Awards in March 2003. **Cheryl** also received the Top Techsan award during Homecoming 2003.

In March 2004, Business Manager **Yesenia Sanchez** reported, "Our department was recognized during a Payables Forum as being the 'Best' Department with Receiving. We were the only department to immediately and fully begin e-mailing receiving reports as requested. Chemistry is an example to all departments on campus that 'paperless receiving' can be done!"



Chairman **Dick Bartsch** (center) is proud to have two Top Techsan award winners in the Department: **Cheryl Blasingame** (l) and **Jennifer Dunfield**. Jennifer received a Top Techsan award in 2001.



Our newest staff members (l to r) **Debbie Guerrero**, **Rhonda Green**, and **Brandon Sheehan** stand beside the newest departmental acquisition, our Ford pickup.



Kathy Jones (l) and **Cheryl Blasingame** at the 2003 Quality Service Plus Awards ceremony.



Chemistry and Biochemistry Business Office staff **Kelly Diaz** (l) and **Yesenia Sanchez** (r) say Good Bye and Good Luck to **Priscilla Jones**. Priscilla left the Department in 2003 to work in the TTU Purchasing Office.

The next time you're on campus, stop by and say "HI" to our staff:

Academic Office
Jennifer Dunfield
Laquetta Purkiss

Administrative Office
Cheryl Blasingame
Rhonda Green

Building/Shops
James Hildebrand
Duane Hinds
Brandon Sheehan
Noah Solis
Jerry Walton
Vince Wilde

Business Office
Kelly Diaz
Yesenia Sanchez

Graduate Programs
Kathy Jones

NMR Spectrometers
David Purkiss

Stockroom
Justo Adame
Debbie Guerrero

Scholarships and Awards

Support of our scholarship programs by Celanese Chemicals Division and Phillips Petroleum Company continues to allow us to recognize, reward and encourage our outstanding undergraduate students. In addition, scholarship funds are available from the interest generated by endowments established many years ago by **Dr. and Mrs. Joe Dennis**, **Dr. Robert C. Goodwin**, and **J. Earl & Countess Fore Archer**. These scholarships are awarded at the annual Chemistry and Biochemistry Awards Banquet, co-sponsored by the South Plains Section of the ACS.

Awarded for 2003-04:

*Jeanette and Joe Dennis
Scholarship*
Andrew Raines
Kim Stryvoky

Robert C. Goodwin Scholarship
MohamedAttaya
Lisa Ayoub
Lindsay Burris
Lance Griffin
Joanna Morton
Michele Risko
Julia Sherrill
Courtney Shofner

Phillips Petroleum Scholarship
Geneva Mouser

*Celanese Chemicals Division
Scholarship*
Megan Gardiner

*J. Earl & Countess Fore Archer
Scholarship*
Colin Jennings

*Outstanding Graduating Senior in
Chemistry/Biochemistry*
April Nesbit

*Outstanding Undergraduate in
Analytical Chemistry*
Colin Jennings

*Arts & Sciences Academic
Achievement Scholarship*
Katrina Petney
Mandy Geryk
Dawn Cline

Outstanding General Chem TA
Nancy Layland (Fall 2002)
Andrea Bentley (Spring 2003)

Awarded for 2004-05:

*Jeanette and Joe Dennis
Scholarship*
Andrew Raines

Robert C. Goodwin Scholarship
Lindsay Burris Sara Coleman
Jody Faircloth Mandy Geryk
Joshua Lieshceski Katrina Petney
Derek Paischyk Kim Stryvoky
Susan Wozniak

*Celanese Chemicals Division
Scholarship*
Irin Tanaudommongkon
Asama Tanaudommongkon

*J. Earl & Countess Fore Archer
Scholarship*
Susan Daniel
Colin Jennings
Stephen McDonald

*Paul and Alta Cates Endowed
Biochemistry Scholarship*
S. James Mills

*Outstanding Graduating Senior in
Chemistry/Biochemistry*
Joanna Morton Schmidt

*Arts & Sciences Academic
Achievement Scholarship*
Mandy Geryk
Shaughn Nunez
Katrina Petney
Irin Tanaudommongkon
Asama Tanaudommongkon
Susan Wozniak

Outstanding General Chem TA
Ademola David Idowu (Fall 2003)
Howard Vogel (Spring 2004)

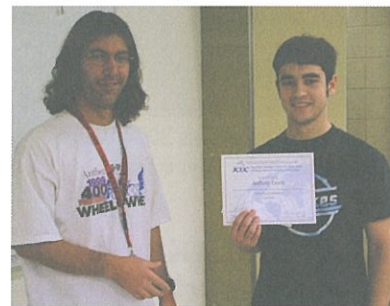
Advising Update

In January, 2004, **Dr. Rebecca Miller** moved to Lehigh University and **Dr. Michael Jones** assumed the duties of Undergraduate Advisor. Michael reports at the end of the Spring 2004 semester we had 164 biochemistry majors and 123 chemistry majors.

Graduate Advisor **Dr. Greg Gellene** reports the Department currently has 13 MS students and 65 PhD students. Eleven new graduate students entered the Department in Fall 2002, eight in Spring 2003, 13 in Fall 2003, 2 in Spring 2004, and 26 in Fall 2004.

Dianjun Chen, **Kyu Mee Kim** and **Cody Timmons** continue their graduate studies as Chancellor's Fellows.

This year was the first year for the Houghton-Mifflin/International Center for First-year Undergraduate Chemistry (HM-ICUC) Award. This year's inaugural award went to our top first-year Chemistry student, **Tony Lewis**, who excelled in Professor Casadonte's honors CHEM 1307 and 1308 courses. Tony's award certificate and \$150 check were presented to him by Professor **Bob Blake**, a founding member of the ICUC.

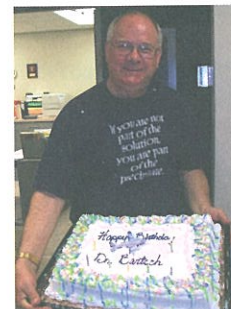


Shaughn Nunez received the 2004 CRC Press Freshman Chemistry Achievement Award. Professor **Dom Casadonte** (l) and Dr. **Michael Jones** (r) presented Shaughn with the 84th Edition of the *CRC Handbook of Chemistry and Physics* and a check for \$150 from the ACS South Plains Chapter.

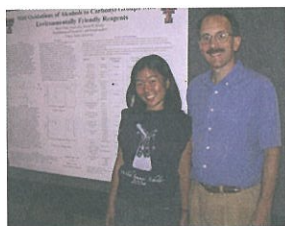
Faculty News and Notes

RICHARD A. BARTSCH:

- * presented a paper in the Symposium on Ionic Liquids: Progress and Prospects entitled "Metal Ion Extraction by Crown Ethers in Ionic Liquids," at the 226th ACS National Meeting in New York, fall 2003.
- * began a four-year term on the International Advisory Board for the Bulletin of the Korean Chemical Society in January 2004. The IAB has members from USA, France, Japan, Russia, Switzerland, and the UK.
- * received one of three grants awarded to TTU by the Texas Higher Education Coordinating Board in fall 2003. His proposal "Calixarene-based Polymers for Removal of Hazardous/Toxic Ions from Natural and Waste Waters" was funded in the Technology Development and Transfer Program with one-for-one matching by Eburon Organics USA, Inc. in Lubbock. For summer 2004, Dick received a supplemental grant for Mrs. **Sonja Crowell**, a chemistry teacher at Lubbock High School, to participate in the research and development effort.
- * is completing the second year of a three-year project "New Proton-Ionizable, Calixarene-Based Ligands for Selective Metal Ion Separation" from the Chemical Sciences, Geosciences and Biosciences Division of the Office of Basic Energy Sciences of the U.S. Department of Energy. The funding level is \$110,000/year.
- * received a three-year, \$150,000 renewal grant from The Welch Foundation for continued studies of "Synthetic Hosts for Recognition of Ionic and Molecular Guests".
- * is involved in an U.S. DOE Environmental Science Management Program project with researchers at Oak Ridge National Laboratory entitled "Next Generation Extractants for Cesium Separation from High-Level Waste: From Fundamental Concepts to Site Implementation". DOE provides support of \$70,000/year for three years for the TTU part of the effort. The objective of the EMSP is to bridge the gap between fundamental research and important environmental applications. This program favors collaborative projects between the universities and the National Laboratories.



Dick Bartsch celebrates his June birthday with a delicious cake.



David Birney with his 2004 Welch Summer Scholar Joyce Tsai.

DAVID L. BIRNEY:

- * was inducted into the TTU Teaching Academy October 2002.
- * was the recipient of the Mortar Board Outstanding Faculty Award, November 6, 2003.
- * was promoted to Full Professor effective September 1, 2003.
- * was elected to membership in TTU's Mortar Board Honor Society, March 2004.
- * was the first recipient a new Excellence in Teaching Award, presented by the TTU Greek Councils at their annual Awards Banquet in April 2004.
- * was awarded a three-year, \$356,100 grant from the National Science Foundation in July 2004 to study "Multiphoton Infrared Thermolysis/Photolysis. Pseudopericyclic Reactions". This research will explore fundamental aspects and potential application of the reactions of organic molecules upon heating.

ROBERT E. BLAKE, JR.:

- * received funding for his Teacher Quality Grant Type A proposal entitled "Development, Implementation and Dissemination of a Teacher-training Course in Chemistry". Bob received \$215,195 (later increased to \$300,000) for Spring and Summer 2004 from the Texas Higher Education Coordinating Board. Bob's proposal was judged to be superior to those submitted by the University of Texas at Austin, Texas A&M University-College Station and Texas A&M University-Commerce.
- * was awarded a \$79,870 Teacher Quality-Type B Grant by the Texas Higher Education Coordinating Board to direct a 17-month project, "Chemistry", in partnership with the Lubbock ISD and the Region 17 Education Service Center.
- * was named to the Board of Directors of the International Center for Undergraduate First-year Chemistry.
- * is on the First Semester Exam Committee for the ACS Examinations Institute.
- * was inducted into the Teaching Academy at Texas Tech in September 2003.
- * was awarded a NSF Grant for \$99,952 for the proposal "LearnStar: Invigorating Undergraduate Education in Chemistry, Psychology and Mathematics".
- * went to the Boston ACS Meeting in Fall 2002 to complete work on the 2003 ACS Inorganic Chemistry Examination.
- * went to the Spring 2003 ACS Meeting in New Orleans. His undergraduate students **Christan Cole** and **Casey Gatzki** presented posters while graduate students **Kathy Gilbreath** and **Kent Chambers** gave talks.
- * presented a paper, "Participation Leads to Performance", at the 226th ACS National Meeting in New York, Symposium on Research in Chemical Education.
- * signed a contract with Prentice Hall to publish his workbook for CHEM 1301, *Introducing Chemistry: A Workbook of Cooperative Exercises*.



Our four members of the TTU Teaching Academy (clockwise from lower right):

Bob Blake, Dom Casadonte, Dick Bartsch and David Birney.

DOMINICK J. CASADONTE, JR.:

- * was selected to receive \$200,000 as one of six nationwide NSF Discovery Corps Fellows, a pilot program to explore new ways for scientists to combine their research expertise with service to society. During the one-year project "Project SERVE (Science Enrichment using Retired Volunteer Educators): An Intergenerational Program for Improving the Quality of Chemistry Education in the EC-12 Classroom", Dom will connect senior citizens in the Lubbock area with elementary and middle school students in the Lubbock ISD. The seniors will volunteer as teacher's aides, mentors or resource persons in the schools.
- * received the Spencer A. Wells Faculty Award for Creativity in Teaching from the Texas Tech Association of Parents at their Spring Scholarship Breakfast in April 2004. In addition to his classes in the Department of Chemistry and Biochemistry, he also teaches in the Honors College and in the Master of Science for Multidisciplinary Science program for EC-12 science teachers.
- * was Promoted to Professor, effective September 1, 2003.
- * was named the 2003 Honors College Outstanding Faculty Member of the Year on May 16, 2003.
- * was a plenary speaker at the European Sonochemistry Society (ESS 9) meeting in Badajoz, Spain, April 25-30, 2004.
- * was named in February 2004 on national "Thank-A-Teacher-Day" by TTU University Daily news editor Heidi Toth as one of five professors who made her undergraduate studies worthwhile. Dom's chemistry class, she writes, "was the most fun I've ever had in a science class."
- * gave these invited seminars: "Sonochemical Remediation of Environmental Contaminants" at Baylor University, September 2002, and "Sonochemistry: Applications of High-Intensity Ultrasound in the Facilitation of Environmental Remediation and Materials Chemistry" at Case Western Reserve University, June 2002.
- * made these presentations: "Facile Sonochemical Synthesis of Nanocrystalline Indium Phosphide", ACS National Meeting, New Orleans, March 2003, "Sonochemical Synthesis of Ionic Liquids" and "Sonochemical Synthesis PolySilyne Materials", ACS Regional Meeting, Austin, TX, November 2002, and "Silicon-Based Nanotubes", ACS Regional Meeting, Albuquerque, NM, October 2002.
- * received these new grants: "Enhanced Sonochemical Efficiency Using Power-Modulated Pulsed and Heterodyne Ultrasound", The ACS Petroleum Research Corporation, \$80,000 for June 2002- August 2004, and "Sonochemical Synthesis of Polysilyne Materials, Phase III", DOE (as administered through Sandia National Labs), \$24,950 for January 2003 - August 2003.
- * was presented in November 2003 with an award commemorating a scholarship created in his honor by Lynn Elms, TTU's Director General of UIL Region 1 5A Spring Meets. This is a freshman year \$700 scholarship. Applicants must have attended a Region 1 5A event; seven scholarships are available.



Dom (center) receives a plaque commemorating the creation of a scholarship in his honor from Lynn Elms of UIL and Vice Provost Elizabeth Hall. The inscription reads:

TEXAS TECH
LEADERSHIP SCHOLARSHIP
DEPARTMENT OF CHEMISTRY/BIOCHEMISTRY
HONORING
DR. DOMINICK CASADONTE
CONTEST DIRECTOR FOR SCIENCE
UIL REGION 1



Dom is always willing to do whatever it takes to generate students' interest in chemistry. Here he dons a SpongeBob Squarepants costume as he performs experiments for a children's presentation.



Dom Casadonte (center) receives the Spencer A. Wells Faculty Award for Creativity in Teaching from the Texas Tech Association of Parents.

PURNENDU K. DASGUPTA:

Sandy took advantage of being on Development Leave in the fall of 2003, spending several weeks in Western Japan (visiting Tokushima, Okayama and Kumamoto Universities, where he has ongoing active research collaborations), got his picture taken beside an active volcano near Mt. Aso (in edited form, this is the mugshot now gracing his website) and in general had too much sushi and sashimi to be good for any mortal. He must like the stuff, because he goes back to lecture this fall again, albeit this time briefly. His Japanese colleagues went back to Mt. Aso and mapped the H_2S and SO_2 emissions around the crater and the fumarole by walking around with an instrument package that was designed collaboratively.

He then spent another few weeks in Thailand, mostly at Chiang Mai University (where they have a very active program in flow analysis) working with collaborators. With colleagues in Thailand and India, the goal is to try to develop a rapid screening test for Beta-Thalassemia (akin to sickle cell anemia, but not the same malfunction), a genetic disease that is common in both countries. The current definitive test is based on HPLC separation of hemoglobin fractions, this is both time consuming and expensive. After spending some time in Mahidol University in Bangkok, he went to India.

He visited colleagues at Jadavpur University (with a mutual interest in trace arsenic analysis in potable waters, a common problem in the region) in Calcutta and then flew to the Central Leather Research Institute (CLRI) in Chennai in Southern India. While he is very reluctant to disclose details, somehow he managed to drop the bathroom sink on his feet while staying at the lavish guest houses of CLRI and had to be stitched up (without anesthetic, ha! serves him good!!) in the middle of the night. He limped his way across India to beautiful Kerala to the Indian Regional Research Institute at Trivandrum, gave several talks and established a collaboration on gas and aerosol measurement.

Upon returning home, he continued the traveling theme, visiting Universities of Maryland and Minnesota and lecturing as well at Honeywell headquarters just outside Minneapolis (they are working together on microfabricated trace gas sensors) and in November, gave a lecture in the TTU Physics Department (he claims that in order to be invited to give a seminar in Chemistry, he will likely have to leave TTU).

Sandy was invited to be the Royal Australian Chemistry Institute biennial lecturer in 2003. He went traipsing along many Australian cities (from Hobart, Tasmania to Sydney to Melbourne to Darwin to Perth). The president of RACI attended one of his talks in Sydney and wrote him up in the President's column in the RACI news magazine (in what is the Australian equivalent of C&EN):

....."Professor Dasgupta's challenging lecture explored the moral responsibilities of science and scientists and, in goodly part, addressed the behaviour of scientists and their relationships in the commercial (and defence) environments. The principles of science can, and have been, applied for both constructive and destructive purposes and decision makers on such applications can be both scientists and, more frequently it seems, non-scientists. How do we as a scientific community influence such decisions? I let the question hang for further correspondence. (The full text of the lecture is on <http://www.depts.ttu.edu/chemistry/faculty/dasgupta/probstcomplete.pdf>; the lecture was sponsored by the RACI Analytical Division.)

Most recently, Sandy was selected to be one of the twenty or so odd authors to be invited to contribute to the 500th volume of *Analytica Chimica Acta*. Elsevier then invited all of the contributors (only a handful from the US) to have a conference at an idyllic retreat at the small village of Ellecom, two hours from Amsterdam. He claims this is the first time that someone paid handsomely for him to go across the ocean and did not ask him to talk. He would not divulge how his garrulous self dealt with this ignominy! Now that he is back to stay for good (for a while anyway), he is brushing up on all sorts of chemical detective stories (do send him your favorite please!) to get ready for his first ever foray of teaching a new course in Forensic Chemistry this coming spring."



The Dasupta Group



Sandy at the active volcano near Mt. Aso, Japan.

Faculty News and Notes continued ...

ROBERT FLOWERS:

- * was recognized by Chancellor Smith as a recipient of the Chancellor's Council Distinguished Research Award at a black-tie reception in December 2002. Bob shared the \$10,000 award with Warren Ballard from the Department of Range, Wildlife, and Fisheries Management.



Bob Flowers (center) receives the Chancellor's Council Distinguished Research Award. With Bob are TTU Chancellor David T. Smith (l) and **Dr. Rebecca Miller**.



Bill Hase (right) and his research group.

WILLIAM L. HASE, WELCH CHAIR:

- * gave a Plenary Lecture at the conference on Theory and Applications of Computational Chemistry in Gyeongju, South Korea, February, 2004. Bill and 24 other international computational chemists from Australia, Belgium, Canada, the Czech Republic, Germany, Israel, the Netherlands, Sweden, Switzerland, UK, and USA received felicitations for their 60th birthdays and for their contributions to computational chemistry. In Korea, the 60th birthday is celebrated with a big party, called "hwan-gap janchi", which celebrates the completion of a full life-cycle according to the Oriental Zodiac. The 60th birthday is generally venerated as an attainment of maturity and wisdom.
- * served on a review panel for the NSF Chemistry Division in January 2004. The Panel reviewed proposals for establishment of new Chemical Bonding Centers.
- * founded the Mesilla Chemistry Workshop in 1997. Mesilla, an historic section of Las Cruces, NM, has been the site of workshops in enzyme dynamics, environmental chemistry, asymmetric catalysis, and nitric oxide chemistry. The next topic will be space chemistry.

ROBERT A. HOLWERDA:

- * taught an outdoor integrated science curriculum (Chemistry, Wildlife and the Environment: High Sierras) at the Berkeley Echo Lake Camp, California, in July and August 2004. Sponsored in part by Trouw Nutrition USA, the program featured an introduction to the chemical elements, water quality testing chemistry, High Sierra wildlife identification, wilderness exploration with map and compass, and crafts designed to foster an appreciation for wilderness preservation. The curriculum was based on materials supplied by the American Chemical Society, USDA Forest Service (Eldorado National Forest), Boy Scouts of America, and Wilderness Press. Over 400 children from the Berkeley area, ages 8-13, participated.



DAVID KNAFF:

- * was presented with the **Barnie E. Rushing, Jr. Faculty Distinguished Research Award** by the Texas Tech Association of Parents at their Spring Scholarship Breakfast in April 2004. David has more than 30 years of uninterrupted federal research support.
- * was elected to a 9-year term of the Executive Committee for the International Society for Research on Photosynthetic Prokaryotes (i.e., bacteria). David will plan for the next International Congress to be held in 2006 in France near Bordeaux.
- * was elected to a 6-year term on the Editorial Advisory Board of *Advances in Photosynthesis and Respiration*.
- * served as one of the organizers for a satellite meeting held in August in Trois Rivières (Canada) in conjunction with the International Congress for Photosynthesis Research that will take place in Montreal in August 2004.
- * was invited during 2003 to speak at: the Gordon Research Conference on Biophysical Aspects of Photosynthesis in Rhode Island; at a symposium on Thioredoxin and Related Proteins at the University of Neuchâtel (Switzerland); and at the 11th International Conference on Photosynthetic Prokaryotes in Tokyo, Japan.
- * presented an invited talk at the 13th Western Regional Photosynthesis Meeting in Asilomar, CA, January, 2004.
- * presented these invited seminars: Institute for Protein Research, University of Osaka, Japan, August 2003; National Institutes of Health, Bethesda, MD, March 2004; Biochemical Institute, University of Zurich, Switzerland, May 2004; and Department of Chemistry, University of Leiden, The Netherlands, May 2004.
- * served as co-editor of a special issue of the journal *Photosynthesis Research* devoted to structural biology.
- * was appointed to a 3-year term on the TTU President's Budget Advisory Council.
- * served as a founding member of the TTU Council of Principle Investigators (a new research advisory group).
- * was appointed in September 2003 to the Editorial Advisory Board for the book series, *Advances in Photosynthesis Research*.



David Knaff (center) receives the **Barnie E. Rushing, Jr. Faculty Distinguished Research Award** from the Texas Tech Association of Parents.

CAROL KORZENIEWSKI:

- * was promoted to Professor effective September 1, 2003.
- * spent academic year 2003-04 working as a Program Officer in the Chemistry Division at the National Science Foundation in Washington, D.C. She handled proposals submitted to NSF and worked on special projects for the Analytical and Surface Chemistry Program. See page 1 for more information about her experience.
- * was instrumental in developing Science: It's a Girl Thing, a summer science camp held on the TTU campus for girls from fifth thru 11th grades. See photos on page 17.

GUIGEN LI:



- * received tenure in February 2003.
- * was selected in June 2004 as one of four US partners for the International Innovation Partnership on Homogeneous Catalysis by the Chinese Academy of Science. His project "Asymmetric Catalytic Halo Aldol Reactions" will receive \$178,000 funding over a three-year period with research being performed both at TTU and the Shanghai Institute of Organic Chemistry. Other US partners for the IIPHC are from Pennsylvania State University, Ohio State University, and the University of Virginia.
- * joined the distinguished board of "CHEMTRACT-Organic Chemistry" in November 2003 as an Expert Analyst in organic synthesis. Guigen was selected by Editor Barry M. Trost of Stanford University.
- * presented "New Olefinic Reaction Provides an Easy Approach to Diamines and Imidazolines" at the Symposium on New Reactions and Methodology, 226th ACS National Meeting in New York, fall 2003.

JORGE MORALES:

- * was awarded a Petroleum Research Fund grant in June 2003 entitled "Valence-Bond/Coherent-State Lagrangian Formulation of Quantum/Classical Models". He will receive \$35,000 for two years.
- * was invited to deliver the plenary talk: "Toward a Unifying Formulation of a Coherent-state Theory for Quantum Molecular Dynamics" at the ACS National Meeting in Philadelphia, August 2004.
- * received the Wiley-International Journal of Quantum Chemistry Young Investigator Award, granted by the Wiley Scientific Publishing Company and the *International Journal of Quantum Chemistry*; \$1,000 Award, February 2003.
- * gave invited talk "Novel and Unusual Coherent States for Quantum/Classical Dynamics: A Unifying Approach" at Jackson State University, Mississippi, March 2003.
- * presented a poster on "Valence-Bond/ Coherent-State Lagrangian Formulation of Quantum Classical Charge-Transfer Models" at the Sanibel Symposium on Theoretical Chemistry, Quantum Theory Project, University of Florida, February-March 2003.



DAVID NES:

- * spent academic year 2003-04 working as a Program Director for the Division of Molecular and Cellular Biosciences at the National Science Foundation in Washington, D.C. He will continue this appointment for the 2004-05 year as well. His primary responsibilities are for programs in Metabolic Biochemistry and Molecular Biochemistry. He also represents Biology at the NSF in a cross-directorate effort in the Emerging Frontiers Program as Program Director in Sensors and Sensory Systems. David's major duties are in program planning and management of research proposals sent to NSF. He also pursues affirmative action and EEO goals, and creates and maintains linkages to other NSF units and other Federal agencies through working groups. See related story on page 1.

EDWARD QUITEVIS:



- * attended the 225th National ACS Meeting, in New Orleans, March 2003, and presented a paper at the Spectroscopy of Liquids Symposium entitled, "Intermolecular Spectrum of Oriented Liquid Crystals: Optical Heterodyne-detected Raman-induced Kerr Effect Spectroscopy of 4-Octyl-4'-cyanobiphenyl".
- * was awarded a Welch Foundation grant, "Low Frequency Dynamics of Room Temperature Ionic Liquids Studied by Optical Kerr Effect Spectroscopy," 6/1/04-5/31/07, \$150,000.
- * was awarded a National Science Foundation Nanoscale Interdisciplinary Research Team (NIRT) Grant: "Dynamic Heterogeneity and the Behavior of Glass-forming Materials at the Nanoscale", 6/1/03-5/31/07, \$1,000,000, Co-PI with Sindee Simon, Gregory McKenna, and Ranko Richert.
- * graduated doctoral student **F. William Weaver** in August 2003, dissertation title: "Studies of Methylene Blue Monomer-Dimer Reaction in Super-cooled Glycerol".

ROBERT W. SHAW:

- * served on a review panel for Sensors and Sensor Networks Program proposals submitted to the Division of Bioengineering and Environmental Systems of the National Science Foundation in June 2004.
- * was promoted to Associate Professor effective September 1, 2004.

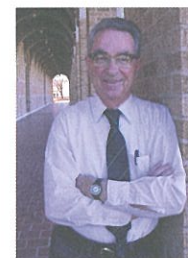


DENNIS C. SHELLEY:

- * Scientists and engineers from three academic institutions joined with their counterparts from shoe and leather companies throughout Southeast Asia in a landmark two-day event during January 2003 in Ho Chi Minh City, Vietnam. A laboratory demonstration of "best practices" scrap leather recycling technology was held and a technology transfer workshop was conducted at the Chemical Engineering Laboratory on the campus of the University of Technology of Ho Chi Minh City, the host institution. TTU's Leather Research Institute (USA), led by Dennis, was the project's lead institution and principal investigator, respectively.

HENRY SHINE:

- * was honored in 2003 with the publication of the Henry J. Shine Commemorative Issue of *ARKIVOC*. Chairman **Dick Bartsch** was the Facilitator for the issue. *ARKIVOC* ("Archive for Organic Chemistry") is available online without access, downloading or page fees, and is published by ARKAT USA. ARKAT is a not-for-profit entity designed to enhance chemical research worldwide and hence to benefit researchers, students, commercial and noncommercial enterprises, and humanity in general by increasing opportunity and efficiency and reducing waste of materials, time and effort.
- * has published the "Early History of the Department". The full text of this article can be seen at the department website, www.depts.ttu.edu/chemistry.



In November 2003, TTU's Mortar Board recognized several Tech faculty members with this year's "apple polishing" awards, those professors who had a special impact on the Mortar Board members' education. Four Chemistry and Biochemistry faculty were recognized this year: **David Birney** (selected by two different Mortar Board members), **Bob Holwerda**, **David Knaff**, and **John Marx**. No other department had four faculty so honored. At a special reception, each selected faculty member received a certificate and a mug filled with chocolate kisses.

The Welch Foundation in Houston, a major supporter of fundamental research in chemistry at Texas Tech University, in 2004 awarded renewal grants of \$50,000/year for three years to **Dick Bartsch**, **Bill Poirier** and **Max Roundhill**. **Greg Gellene** received a three-year renewal grant of \$55,000/year, while **David Birney** and **Guigen Li** had their grant support levels increased from \$50,000 to \$55,000/year and a new three-year grant of \$50,000/year was received by **Ed Quitevis**.

Transition State: Deaths

MICHAEL LANE MALLINGER (BS CHEM 1999) died April 29, 2002.

JOSEPH HARVEY HARRIS (BS CHEM 1966, MS Shine 1968) died September 19, 2002. He received his PhD in microbiology at TTU, and worked at Texas Instruments, Howard Payne University, College of the Southwest, and Collin County Community College. He was also a researcher at Howard Hughes Medical Institute. **Henry Shine** remembers, "Harvey was a pre-med student when an accident in 1962 left him a paraplegic. This ended his hopes for a medical career and turned him instead to chemistry. The Head of Chemistry, **Joe Dennis**, had a lab bench constructed so that Harvey's wheelchair would slide under it. At that bench, Harvey carried out research on the *para*-semidine rearrangement of 4-methoxyhydrazobenzene. The research was published in *Tetrahedron Letters* in 1986."

ROBERT ROWAN JR. died May 27, 2003 at age 88, a retired professor from New Mexico State University. **Henry Shine** says, "In my early history of the Department, I record the appointment to and departure from our faculty of Dr. Rowan. The March 1, 2004 C&EN contains his obituary."

BRADLEY C. RIEK (BS BICH 1996, MS Harman 1999) died August 25, 2003. He was employed by Applied Biosystems as a chemical engineer.

DON O. HENDERSON (MS Redington 1987) died November 10, 2003, after battling cancer for nearly two years. Following post-doctoral research at Vanderbilt and Fisk Universities, Don remained at Fisk as a researcher. In 1992, he established the Chemical Physics Laboratory, which he headed. He later became an Associate Professor of Physics, as well. Don completed about 120 research articles and presentations, primarily about pulsed lasers and other instrumentation gained for characterizing properties of nanoparticles and materials.

Student News

RICHARD LOMBARDINI:

- * Under the Department of Energy program of his mentor, Professor **Bill Poirier**, physics graduate student Richard traveled to Germany in summer 2004 to participate in the Nobel Laureate Student Conference, a special program for graduate students from around the world to meet with a number of Nobel Laureates. This year the list included, among others, W. Kohn, W. Lamb, V. Ginzberg, and B. Josephson. The Laureates lectured on a topic of their choice related to physics, and then held less formal small group discussions with the students in the afternoons and evenings. US students are supported by NSF and DOE programs, which combined, accept only 50 students each year. Richard was selected under the DOE program, which included a visit to DOE headquarters in downtown Washington D.C.
- * Richard was the third place winner of the Outstanding Student Presentation Award at the Southwest Theoretical Chemistry Conference in November 2003, for a poster entitled "Quantum Mechanical Calculations of the Rovibrational Energy Levels of Neon Clusters". The SWTCC, organized by Professors **Greg Gellene** and **Bill Poirier**, was held at the Holiday Inn in Lubbock. The winning posters were selected by a group of conference attendees not from TTU.

SM. RAHMAT ULLAH:

- * Sm. Rahmat was selected by the Division of Environmental Chemistry of the American Chemical Society as the winner of one of the 2004 Graduate Student Paper Awards. This is the highest award given to students by the Division of Environmental Chemistry. Sm. Rahmat presented his paper at the Fall 2004 National ACS meeting in Philadelphia at a special Awards Symposium and was honored at the Environmental Division Dinner with a \$500 check. One of Professor **Sandy Dasgupta's** PhD students, the title of his paper was "Carbon Dioxide Removal Greatly Improves Trace Ionic Analysis in Environmental Samples".

CHUNZHOU:

- * was the first place winner of the Outstanding Student Presentation Award at the Southwest Theoretical Chemistry Conference in November 2003. Chun, **David Birney's** PhD student, won with her poster entitled "Theoretical Studies on the CHClO Additions of Ketene with Ethylene, Formaldimine, and Formaldehyde."

MANDY GERYK:

- * received the Texas Tech Association of Parents annual Student Academic-Citizenship Award for her extraordinary service as the student member of ASCAP (Arts and Sciences Committee on Academic Programs). Mandy, a junior biochemistry major, received this year's award for the College of Arts and Sciences.
- * was among 114 TTU students selected for inclusion in the 2003 edition of *Who's Who Among Students in American Universities and Colleges*.



Mandy Geryk with her Student Academic-Citizenship Award.

Congratulations Chemistry and Biochemistry Outstanding General Chemistry Teaching Assistants

Ms. **Nancy Layland**, Fall 2002
Ms. **Andrea Bentley**, Spring 2003
Mr. **Ademola David Idowu**, Fall 2003
Mr. **Howard Vogel**, Spring 2004



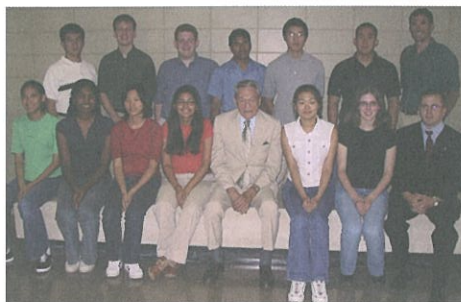
GenChem Coordinator **Michael Jones** (l) and Chairman **Richard Bartsch** (r) present the 2003-04 Outstanding TA Awards to (center, l to r) **Ademola David Idowu** and **Howard Vogel**.

PHOTOCHEMISTRY



Photo on left: Chemistry and Biochemistry undergraduate scholarship recipients for 2003-04; photo on right, scholarship recipients for 2004-05.

Welch Summer Scholar Program participants (photo on right) with Dr. Norman Hackerman in summer 2003, and (photo below) posing in their favorite new letter "W" in summer 2004.



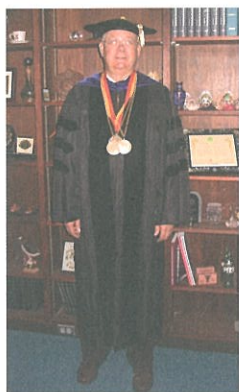
Visiting speaker Kihyung Song from Wayne State University (l) and Ed Quitevis.



Henry Shine and his wife **Sellie** pose proudly by the plaque commemorating the Henry Shine Lecture Series. This plaque, and a similar one for the G. Wilse Robinson Lecture Series, are displayed in the Chemistry Building near the administrative office.



Retired Chemistry and Biochemistry faculty (l to r, front row) **Joe Adamcik**, **Clinton McPherson**, and **John Anderson** at the retirement party for **Dick Redington** and **John Marx** (l to r, back row).



Chairman **Dick Bartsch** poses in his doctoral regalia prior to the inauguration ceremony for new TTU President, Jon Whitmore.



David Birney (l) and **Paul Paré** participate in The Race for the Cure.



Science: It's a Girl Thing camp-goers experience polymers (l) and prepare oral presentations (r) during SIGT 2003. Professor **Carol Korzeniewski** is one of the organizers of SIGT.

Products in High Yield: Alumni News

RIDAAL-HORR (PhD Dasgupta 2003) has accepted a position with Dionex Corp in Sunnyvale, CA where he already has friends such as **Brian De Borba** (MS Dasgupta 2000). Dionex is in the process of commercializing the gas-aerosol analysis instrument that was partly developed as part of Rida's graduate work. He has also just "tied the knot" with his new wife Yasmin.

DAVID A. BABB (PhD Bartsch 1985) has been promoted to Dow Scientist within Core Polyurethanes R&D of Dow Chemical Company in Freeport, TX.

CHARLES M. BALDWIN (PhD Shine 1970) is the O.P. and Evalyn Hammons University Professor of Pre-Medical Studies at Union University in Jackson, TN. He serves as faculty advisor for the ACS Student Affiliate there, which received an Outstanding Award in 2003, and previously served as chairman of the science department.

LYNDRA BILLS (BS CHEM 1983), following her undergraduate studies at TTU including research with **Dick Bartsch**, got her MD at the University of Texas-San Antonio Health Sciences Center. Following her residency in internal medicine/psychiatry at West Virginia University, she worked in West Virginia, then in the public health service. Currently she is Director of Medical Behavioral Health for the Lancaster General Health System in Lancaster, PA.

LARRY BRATTON (BS CHEM 1986; MS Bartsch 1989) is beginning his seventh year as a Senior Scientist for Pfizer Pharmaceuticals, Inc. He works in the Drug Discovery Program at Ann Arbor Laboratories preparing novel compounds for evaluation as new drug candidates for treatment of various cardiovascular diseases. A World Patent (WO 03/084916 A2) was issued last October involving compounds that modulate PPAR activity.

CHARLES BRADLEY BORING (PhD Dasgupta 1998) and his wife Kathy, now residents of Dallas, announce the arrival of son Michael.

MARTY CAMPBELL (PhD Bartsch 1999) is completing his third year as Assistant Professor in the Department of Chemistry at Henderson State University in Arkadelphia, AR. In July, he added the duties of Undergraduate Research Director. In addition to dispensing funds for equipment and student salaries, he will serve as Coordinator for the Arkansas Research Conference held each spring at HSU. Marty and his wife, Janee, have adopted two children.

WITOLD CHAREWICZ (Visiting Professor 1982, 1985, 1988, 1995 and 2001) has directed the Division of Hydrometallurgy of the Institute of Inorganic Chemistry and Metallurgy of Rare Elements at Wroclaw University of Technology, Poland, for 10 years.

BONG RAE CHO (PhD Bartsch 1980), professor at Korea University, has received a Korean Office of Science and Engineering Foundation (KOESF) grant to synthesize two-photon materials for bio-imaging. His daughter, Hyun-Young, has graduated *summa cum laude* from the Department of Psychology at Yonsei University.

SANGKI CHUN (PhD Bartsch 2002) is a Senior Scientist in Corporate R&D for LG Chemical in Korea. He has developed an environmentally-benign adhesive that is going to the pilot-plant stage.

NAZAR ELKARIM (PhD Bartsch 1999) is a Research Scientist II at Northern Lipids Inc. in Vancouver, British Columbia. He now heads the IT department.

HOLLY GOEBEL (BA CHEM 2004) writes, "I just wanted to say 'thank you' to **Dr. Dennis Shelly** for teaching me so much last semester. **Zubin Bhakta** (BS CHEM 2004) and I feel he was a positive influence on us. We appreciate that he cares about his students. I am working for AME Laboratories in Lubbock as a lab assistant."

SIHUYN (MARIA) HAM (PhD Birney 1998) is a professor at Sookmyung University in Seoul, Korea.

TAKASHI HAYASHITA (Postdoc Bartsch) is Associate Professor of Chemistry in the Graduate School of Science at Tohoku University in Sendai, Japan. He visited TTU in March for collaborative work in the Bartsch Research Laboratory and returned to the United States this summer to participate in the 13th International Symposium on Supramolecular Chemistry at the Notre Dame University.

JEFFREY KYLE HANCOCK (BA CHEM 1999) graduated from dental school in May 2003 and now practices dentistry in Lubbock. His wife is Starr.

A. K. M. MANSURAL HOQUE (PhD Shine 1990) is a professor of chemistry at Dyersburg State Community College in Tennessee, where he teaches general and organic chemistry. The Hoques have a son studying law at the University of Virginia, Charlottesville. Their daughter, born in Lubbock, is now 14.

HONG-SIK HWANG (PhD Bartsch 1996) is a Research Chemist for Indium Corporation of America in Clinton, NY. He works in polymer formulation of epoxy flux and underfill adhesives that can provide adhesion and soldering for assembly of electronic components.

SHERYL IVY (BA CHEM 1993, MS Bartsch 1996) has joined Sunesis Pharmaceutical, Inc. in South San Francisco as a Staff Research Associate II.

YOUNGCHAN JANG (PhD Bartsch 1995) is a Senior Researcher for Korea Kumho Petrochemical Co., Ltd. in Taejon, Korea. He has 10 journal publications for the period of 2000-2004.

SANG IHN KANG (PhD Bartsch 1983) continues his employment with Cognis Corporation, but in a new location of Kankakee, IL, south of Chicago.

KIM KEHOE (BS CHEM 1997) writes: "I graduated from University of Texas Medical Branch in Galveston in May 2002 and am currently in the middle of my Internal Medicine internship year. I am doing my training at Tripler Army Medical Center in Honolulu, HI, where I am an Army Captain. I don't have much free time these days, but when I do I really enjoy living where I do. I was back in Lubbock this past September and it felt great - a lot has changed, but yet it is still the same. I attempted to visit the Chemistry Dept. but didn't see any familiar faces. Please tell Drs. **Headley** and **Birney** hello for me!"

Alumni News Continued ...

JAMES (JIM) KELLY (BS CHEM 1968) writes, "I enjoy receiving the TestTube, particularly articles relating to staff from the '60's (Drs. **Dennis, Shine, Stuart**, etc.) Although I am now a CPA (MPA from UT-Austin in 1975), I strongly credit my education at Tech, and specifically problem-solving and analytic abilities (important in my job as well) to my chemistry curriculum at Texas Tech and UT (3-year doctoral candidate there before changing fields). My wife, Susan, is an eighth-grade teacher, son Mike works in Houston (BS chemical engineering from UT) and daughter Beth works in Dallas (BBA information systems from Texas A&M)."

JONG SEUNG KIM (PhD Bartsch 1993) has moved from Konyang University to a new position as Associate Professor in the Department of Chemistry at Dankook University in Seoul. The Kim Family lives in Bundang, which is 20 kilometers south of Seoul.

BRIAN KNETTLE (PhD Flowers 2003) was Visiting Assistant Professor at Texas Tech during the 2004 Spring Semester.

LI LI (MS Birney 2003) is in the PhD program at Purdue University. She and her husband **Promad Chopade** (current Instructor in our department -- see page 3) have a daughter, Catherine, age 17 months.

ZUANG-CONG (GEORGE) LU (MS Bartsch 1990) is Vice President of Great Western Inorganics, Inc. in Arvada, CO (near Denver). The company sells more than 400 high purity inorganic chemicals. His wife, Yongming Ding, works for an environmental analysis company and his daughter, Amy Lu, is the mother of four- and two-year old sons.

GEVORK MINASKANIAN (PhD Marx 1979) is Vice President of Chemistry and a co-founder of Aderis Pharmaceuticals, Inc. in Richmond, VA. In addition, he teaches evening chemistry courses at Virginia Commonwealth University. Aderis Pharmaceuticals, in collaboration with its development partner Schwarz Pharma AG, has progressed a proprietary dopamine agonist formulated in a novel transdermal patch to late Phase III clinical studies as a treatment for Parkinson's Disease. This product is scheduled to be filed for FDA review in September.

JASON MONTGOMERY (MS Poirier 2002) is now pursuing a PhD degree in Chemistry at the University of Chicago.

THOMAS A. MOORE (PhD Song 1975) and wife **ANA LORENZELLI MOORE** (PhD Herndon 1972) have revealed, through their research at Arizona State University, the largest transient dipole moment ever measured in a popular artificial photosynthetic molecule. The molecule consists of a covalently linked carotene, porphyrin, and fullerene, and was prepared in 2000.

CHARLIE O'REAR (BS CHEM 1988) is Operations Sections Leader for Celanese in Pampa, Texas.

DEBOLEENA ROY (PhD Birney 1993) is currently a professor of Chemistry at American River College in Sacramento, CA.

BILL SHUMWAY (PhD Birney 2001) is a research scientist at Haliburton Corporation in Houston, TX.

CARRIE BATES SIMS (BS CHEM 1999, MS Bartsch 2002) is the Organics Laboratory Manager at AccuLab, Inc., an environmental testing facility in the New Orleans area. She has been married for two years and has just become President-Elect for the Greater New Orleans Women's Soccer League.

BYUNGKI SON (PhD Bartsch 1985) started Frentech Chemical Company last year. He writes: "At our company we develop synthetic procedures of speciality chemicals for other companies and supply the chemicals to the companies. Also we synthesize intermediate chemicals or reagents for academic research."

VERONICA THOMASON (BS CHEM 1998) is a Chromatography Applications Chemist with Teledyne-Isco in Lincoln, NE. She supports Combi Flash instruments, a line for automated flash chromatography.

STEVEN TOMLINSON (PhD Harman 2001) taught General Chemistry at TTU Fall 2001-Spring 2004 and now works for Proctor & Gamble Pharmaceuticals as a Medical Science Liaison for the Wisconsin and northern Chicago area. His daughter Athena was born May 2004.

MARTY UTTERBACK (PhD Bartsch 1992) moved to Atlanta in August 2003 to become industry manager for Georgia Pacific, manufacturer of pine tree chemicals.

RAMESH VISVANATHAN (Postdoc Bartsch) is the Associate Director for Analytical Research at Ranbaxy Labs Ltd. near New Delhi, India.

DARCEY WAYMENT (PhD Casadonte 1997) is an Assistant Professor of Chemistry at Our Lady of the Lake University in San Antonio, TX.



LOUIS WHALEY (MS Bartsch 1990) is pursuing a PhD in Inorganic Chemistry at Rutgers University. In his research, he is specializing in magnetic and conducting mixed-metal oxides.

JOHN WHITE (PhD Bartsch 1993) teaches in the Department of Chemistry, Physics and Engineering at Temple College in Temple, TX.

ZHI-YI ZHANG (Postdoc Bartsch) has joined the Hospital Product Division of Abbott Laboratory in Lake Forest, IL, as a Senior Research Pharmacist. His division recently became an independent company, Hospira, Inc., with 14,000 employees worldwide.

LONGGUI ZHONG (MS Bartsch 1997) started his own company in Nacogdoches, TX. The company is engaged in international trading and engineering service.

CHUN ZHOU (PhD Birney 2004) is a research scientist at Corsicana Technologies in Corsicana, TX.

Transition States: Graduations

Ph.D. Degrees in Chemistry

August 2002

Sung-Kun Kim

(Biochemistry-Shaw)

Inhibition of Metallo-Beta-Lactamase by Rational and Combinatorial Approaches

Nathan Alan Ross

(Organic-Bartsch)

Reformatsky Reactions Under High Intensity Ultrasound Irradiation

December 2002

Daniel Ta-Jen Chang

(Physical-Gellene)

A Systematic Study of Basis Set Superposition Error in the Interaction Energy of Two Hydrogen Molecules

Zhengrong Li

(Inorganic-Whittlesey)

Investigation of Alkylindium-Metal Carbonyl Reactions and Synthesis of Xenophilic Compounds

May 2003

Yusuf Tutar

(Biochemistry-Harman)

Structure-Function Studies with the cAMP Receptor Protein of Escherichia coli

August 2003

Rida Sadek Al-Horr

(Analytical-Dasgupta)

Advances in Ion Chromatography for Environmental Applications

Fritz William Weaver

(Physical-Quitevis)

Studies of Methylene Blue Monomer-Dimer Reaction in Supercooled Glycerol

December 2003

Brian Wesley Knettle

(Organic-Flowers)

Reactions and Photochemistry of Samarium (II) Dibromide Complexes

Christopher Lee Truitt

(Biochemistry-Paré)

Translocation of Volicitin by Beet Armyworm Larvae to Corn Seedlings and Identification of a Volicitin Receptor in the Plant Plasma Membrane Enriched Fraction

Ph.D. Degrees (continued)

May 2004

Mohamed Ali Ali Farag

(Biochemistry-Paré)

Inducible Plant Responses Triggered by Photochemical and Bacterial Elicitors

Fernando Adolfo Fernandez

(Organic-Bartsch)

Synthesis of Calix[4]arene Ligands With Multiple Proton-Ionizable Groups for Complexation of Multivalent Metal Ions

Jess Edward Jones

(Inorganic-Casadonte)

Chemical Applications of High Intensity Ultrasound in Green and Materials Chemistry

Henry Charles Manning

(Analytical-Bornhop)

Multi-Disciplinary Study of Lanthanide Chelates as Multi-Model Molecular Imaging Agents

Chun Zhou

(Organic-Birney)

Studies on Cycloaddition Reactions of Ketenes: Further Investigations of Pseudopericyclic Reaction Mechanisms

August 2004

Todd Davis

(Organic-Flowers)

Reduction and Reductive Coupling Reaction α -fluoroketones and Related Substrates

Kyoo Dong Jo

(Analytical-Dasgupta)

Development of New Automated Flow Titration Systems

Master's Degrees in Chemistry

August 2002

Eun Jung Park

(Inorganic-Whittlesey)

Reactions of Electrophiles with Transition Metal Carbonyl Anions

December 2002

Dazhan Liu

(Organic-Bartsch)

Synthesis of New Calixarene Ligands

Jialin Liu

(Organic-Nes)

Synthesis and Testing of Sterol Biosynthesis Inhibitors with Candida lbicans

Paramakalyani Martinelango

(Analytical-Shelly)

Multidimensional Instrumental Analysis of Wet-Blue Leather Hydrolysate

May 2003

Lin Gao

(Analytical-Korzeniewski)

Electrochemical and Transmission Infrared Spectroscopic Studies of Methanol Oxidation Reactions at Platinum and Platinum-Ruthenium Fuel Cell Catalysts

August 2003

Angela Christine Gwyn

(Organic-Bartsch)

Synthesis and Modeling of Crown Ethers

Subramanian Ananthakrishn Karur

(Organic-Li)

New Metal Assisted Olefin Formation Processes

Thi Thuy Minh Nguyen

(Biochemistry-Nes)

Influence of Inhibitors of Sterol Biosynthesis on Growth and Sterol Metabolism in Candida Albicans



Mohamed Ali Ali Farag (far left) was selected to serve as Graduate School banner-bearer at the May 2004 graduation ceremony.

Graduations Continued ...

Master's Degrees (continued)

December 2003

Li Li

(Organic-Birney)

Elimination of cis-Penten-2-yl Acetate

Xiangyi Liu

(Organic-Flowers)

*Development and Application of Small
Molecule Chaperones for Protein
Renaturation*

Wei Pei

(Organic-Li)

*Baylis-Hillman-Type C-C Bond
Formation and Olefin Diamination
Reaction*

May 2004

Nancy Lea Layland

(Biochemistry-Knaff)

*The Purification and Characterization
of Plant Cytochrome c and the
Identification of the Gene From
Vigna Radiata*

Ganesh Vijayaraghavan

(Analytical-Korzeniewski)

*Studies on Electrochemical Reaction
Pathways of Methanol Electro Oxidation
on Nanoscale Fuel Cell Catalysts*

Shanhong Xu

(Analytical-Korzeniewski),

*Activity of Methanol Electrooxidation
at PtRu Materials at Temperatures in
the Range of 23 to 70*

August 2004

none



May 2004 Biochem graduate **Lisa Ayoub** proudly displays her TTU diploma.

Bachelor of Arts in Chemistry

August 2002

Despina Mehedintu Davis

December 2002

Charlie Robert Vasquez, Jr.

May 2003

Karl Miller Adam

August 2003

Christan Star Cole

December 2003

none

May 2004

Holly Kay Goebel

Cody Scott King

Carrie Leanne Loewen

Keisha Linzee Naugle

Lisa Jeannette Rotge

Megan Ashley Strader

Colton John Street

August 2004

Jill Sawicki

Gregory Keith Vandiver

Bachelor of Science in Chemistry

August 2002

Anton Vasilievich

December 2002

Brandi Dutton

James Harold Lewis

May 2003

Bruce Lee McHam

Faraz Ahmed Rizvi

August 2003

none

December 2003

none

May 2004

Claude Martin Hillis

August 2004

Lauren M. McPherson

Bachelor of Arts in Biochemistry

August 2002

none

December 2002

none

May 2003

Rajvinder Singh Baidwan

Brandy Jo Harvey

William Michael Turner

Erin Rebecca Winfrey

August 2003

Srinivas Sai Mikkilineni

December 2003

Colton John Wilson

May 2004

Shajeea Ajmal

Kimberly Ann Biberdoft

Eunice Noemi Orozco

Julia K. C. Williams

Erin Michelle Sliter

August 2004

Loan Hoang Cam Phan

Kathryn Thuy Tram Tran

Yen Phuong Tri Trinh

Bachelor of Science in Biochemistry

August 2002

none

December 2002

none

May 2003

Joshua Gordan Carnes

Matt Stevenson Durham

April Dawn Nesbit

August 2003

none

December 2003

Emmanuel Duran

May 2004

Lisa Michelle Ayoub

Michelle Leigh Risko

August 2004

Amanda Kaye Bryan

Joanna Leigh Schmidt

Dale Scott Smith

Dear Family, We Are Fine. How are You?

Please let us hear from you, whether it be a quick "hello", a lengthy epistle, or a cool note to correct our errors about you! It would be a tremendous help to us if you could update our information about you and that, in turn, would help you be better informed about what's going on here at Tech. Please fill out the form below and mail it to the *TestTube* editor (address at page bottom). An interactive online form is available, at www.depts.ttu.edu/chemistry/alumniform.html. Or, send Kathy.Jones@ttu.edu an e-mail message with this information (and maybe a photo or two for the next issue of the *TestTube*).

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Kathy Jones, Texas Tech University, Department of Chemistry and Biochemistry,
Box 41061, Lubbock TX 79409-1061

The Coinage Metals

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