

chemistry@wwu

Chemistry Department • Western Washington University
Newsletter for Alumni and Friends of the Chemistry Department

Number 7 Spring 2006

Message from the Chair

Greetings to all our alumni and friends! This year marked the fifth and penultimate year of our major six-year, \$750,000 Department Development grant from Research Corporation and the Murdock Charitable Trust. We continue to be in the midst of a major transition period with respect to faculty retirements.

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Don King, Sal Russo, and Jack Weyh retired this past year after 39, 37 and 37 years of service respectively. We made a significant new tenure track hire for the department last year, adding Emily Borda who joined us in September. Her principal area of scholarship is Chemical Education. Faculty searches continued again this fall. We recruited for three positions and were fortunate indeed to hire two new faculty. Elizabeth (Betsy) Raymond, a physical chemist and Loren Williams, a biochemist, join us in September. Both are natives of the Pacific Northwest. Betsy received her Ph.D. at the University of Oregon and currently

is a postdoctoral fellow at UCLA doing laser chemistry. Loren, an established scholar in DNA and RNA structural biochemistry, comes to us from Georgia Tech where he is a Professor of Chemistry. We look forward to the leadership he will provide for our biochemistry program. The department is still behind in its hiring schedule. We are losing Lisa Gentile who leaves us after five years to take a faculty position at the University of Richmond, and anticipate recruiting for three more faculty positions this coming September.

The department continues to emphasize the undergraduate research experience. For faculty and students this is a rich and intensive one-on-one form of instruction. During this current academic year 50 undergraduates are participating in faculty-supervised research projects and 23 worked full-time on funded research projects during the past summer. Our M.S. graduate program, although small, is of high quality and continues to be productive. During the past summer seven of our graduate students carried out funded thesis research. All funded research for students is supported by faculty research awards from agencies such as the National Science Foundation and the National Institutes of Health. Recent major research awards have been received by Spencer Anthony-Cahill (NIH), Mark Bussell (NSF), and Dave Patrick (NSF)

If you would like to keep posted about department news, we invite you to visit our website at www.chem.wwu.edu. We also cordially welcome you to stop by and visit the department any time you are in the vicinity of Bellingham.

~Mark Wicholas

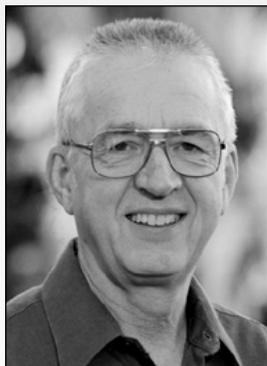
inside:

Faculty/Staff Updates	2
Graduation	6
Awards	7
Scholarships	8
Alumni News	8
Alumni Spotlight	11
Thank You	12



Message from the Editor

I want to thank everyone who made contributions to the text of the Newsletter. Gary Lampman and I did the planning while Bernadette Davidson and Denice Hougen collected much of the information. Melissa Maxwell of Publishing Services was responsible for design and production. In addition, we gratefully ac-



knowledge the Western Alumni Association and Research Corp/Murdoch Trust who paid for the printing. We invite you to stay in contact with the department.

~Sal Russo

Annual Colloquium

Our annual Scholars Day was held on Thursday, May 19, 2005. Undergraduate and graduate students presented a total of 25 posters and 3 talks. The keynote speaker was James R. Heath, Elizabeth W. Gilloon Professor of Chemistry at Caltech, whose talk was entitled "Molecules, Electronics and Computation."

For Scholars Day on May 19, 2006, our keynote speaker will be Harry Gray, Arnold O. Beckman Professor of Chemistry at Caltech, whose area of research is electron transfer in inorganic chemistry, biochemistry, and biophysics.

Faculty/Staff News

Lisa Gentile has accepted a tenured position as Associate Professor of Chemistry at the University of Richmond effective August 2006. Our thanks to Lisa for her excellent teaching, mentoring of research students, and service to the department.

Tom Harvey will be leaving Western. Our thanks to Tom for his past teaching and current excellent work as our instrument specialist.

Armando Herbelin, our first instrument technician and now an instructor at Lower Columbia College, has been granted tenure as of September 2005.

Jack Weyh Retires



Jack Weyh retired after 37 years at WWU. One always wonders whether retirement will be the right decision. According to Jack it definitely was. Since June 2005, he has busier than he could ever have imagined. And he still has all kinds of things that he wants to do.

He has entered into one of life's major changes. He is happy, healthy, busy and (trying to be) useful.

Jack remembers back to Fall 1968 when he arrived. The Viet Nam War was in full swing and protests and outright confrontation were common place. He recalls walking home well before five o'clock numbers of times after the Science building (Haggard Hall) was closed and classes were canceled because of bomb threats. Somehow, somehow we were able to complete the quarter, cover the necessary material and move on.

Jack remembers the dreary, gray concrete hallways of Haggard Hall. For some reason (which he still doesn't understand) the walls were never painted. Dreary and drab! That was the standard until we moved into the new Chemistry Building. What a dramatic improvement! Jack thanks Don Pavia and all the others that helped design and build that great facility. But no matter what the nature of the building, the Chemistry Department always continued to build, grow, excel, and provide an outstanding experience for our students.

Although he enjoys retirement, Jack still misses co-workers, colleagues and, of course, the students. Working with bright young minds is one of those "once in a lifetime" experiences that those in education get to experience every day. Jack gives thanks to students, staff, and faculty colleagues. Jack considers it a privilege to have been able to know and work with all of you.



Vyvyan Promoted, on Sabbatical

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Congratulations to Jim Vyvyan who was promoted to the rank of Professor of Chemistry effective September 2005. Jim previously earned tenure and promotion to Associate Professor in 2002. Jim has been a member of the Department's Graduate Committee since joining the Department in 1997, and was Graduate Program Advisor for Chemistry from 2001 until the fall of 2005, when he began a year-long sabbatical leave. Jim was

named a Henry Dreyfus Teacher-Scholar for 2003, and was an invited speaker at the 34th National Science Foundation Workshop on Organic Synthesis and Natural Products Chemistry in the summer of 2004.

Jim's research spans several areas: the synthesis of the heliannuol family of allelopathic natural products and structurally simplified analogues, the enantioselective synthesis of cananodine, an anticancer alkaloid, and the study of small molecule models for triblock copolymer coupling sites. The polymer project is a new collaboration with Steve Dillman of the WWU Engineering Technology Department. Jim published eight papers with 15 student coauthors over the last four years, and the National Science Foundation (NSF), the Herman Frasch Foundation, and the Camille and Henry Dreyfus Foundation fund his work. Jim is also an invited speaker in a symposium entitled "Conducting Research at a Predominantly Undergraduate Institution: Faculty Strategies for Success" that will be held in the Division of Chemical Education proceedings at the spring ACS meeting in Atlanta.

At the top of Jim's sabbatical task list is writing grant proposals to the National Institutes of Health (NIH), NSF, and the Petroleum Research Fund to keep his research funded. He is also writing an invited review article on the synthesis of aromatic bisabolene natural products for *Organic Preparations and Procedures International*. In the spring, Jim plans to spend some time at the U.S. Department of Agriculture's Natural Product Utilization Research Unit (USDA-NPURU) learning how to do biological assays on the heliannuol analogues synthesized by his students. In between these tasks, he intends to re-learn some computational chemistry using a workstation and software purchased under his Dreyfus Teacher-Scholar grant. Who knows?

He may even get into the lab to prove to his students he can actually 'do chemistry'. Jim's research group currently consists of three undergraduates and four M.S. students.

The increased flexibility of a sabbatical schedule also allows for some recreation. In November, Jim traveled to Green Bay to watch his beloved Packers play on the hallowed ground of Lambeau Field, the highlight to a very long and painful NFL season for him. Jim, Cathy, and their boys (James Robert, 7, and Nicholas, 4) spent the two weeks around Christmas visiting family and friends in Wisconsin, as usual, and they have a trip to Florida planned for April.

Patrick Promoted, Wins Award



Congratulations to David Patrick who was promoted to Professor effective September 2005. He also received the Paul J. Olscamp Award at the spring 2005 commencement exercises. The \$1000 award was created by an endowment provided by former WWU president Paul J. Olscamp, and has been given annually since 1983 to a WWU faculty member selected by the Research Advisory Committee and the President as having made an outstanding contribution to research and scholarship. Patrick's research is in the area of surface and materials chemistry. Supported by funding from the National Science Foundation and Camille and Henry Dreyfus Foundation, his group of undergraduate and graduate students is investigating new applications of liquid crystals to nanotechnology. Patrick joined the WWU faculty in 1996. You can read more about his research at <http://www.chem.wvu.edu/dept/facstaff/dpatrick/patrick.shtml>.

Dave chaired the university committee that formulated policy for the evaluation of administrators. He is currently on the committee that is investigating possible participation for Western on the redeveloped waterfront. He is a founding member of the Materials Center Facility. Dave and his wife, Bahareh, have daughters Maggie age 10 and Sam age 6.

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Faculty

Emily Borda Joins Faculty



Emily Borda began as an assistant professor in chemistry and science education at WWU in 2005. After growing up in Arvada, Colorado, she attended Gonzaga University in Spokane where she earned a B.S. in chemistry. As a junior she lived in Florence, Italy for a year. Though this adventure forced her into the ominous role of “5th year senior” down the road, it was well worth the time and further accrual of student loans (she

thinks). Emily then travelled further west to do her doctoral work in bioorganic chemistry at the University of Washington. While there, she became increasingly interested in education and did additional coursework to earn an M.Ed. in education leadership and policy studies not a moment before she also earned her Ph.D. in chemistry. That grueling experience paid off when she was offered an opportunity to combine her two areas of training at WWU: First as a postdoctoral research associate at SMATE in the fall of 2004, helping to build a research agenda within an ambitious math-science partnership grant, and then as an assistant professor of chemistry and science education in the fall of 2005.

Emily is excited to be in the classroom again, as she loves teaching. She is also thrilled with the opportunity to start a research program in science education, and most of all, hopes that these two activities, teaching and research, will inform and enhance each other. She is interested in studying students’ epistemological ideas about science (what scientific knowledge is and how it is generated and used). In particular, Emily would like to study how these ideas change over time and which factors in a student’s undergraduate education play a role in these changes. Finally, she would like to investigate whether and how different types of chemistry instruction, laboratory and independent research experiences affect changes in students’ epistemological beliefs. Through this research, she hopes to learn more about how to give students tools to critically analyze and interpret scientific information; in other words, tools to help them to be scientifically literate adults.

Emily’s husband, Matthew Miller, finished his Ph.D. in curriculum and instruction at the University of Washington in August, 2005. He hastily rose to the occasion of becoming an assistant professor in the Woodring College of Education

in early literacy. The two of them are still in relative disbelief at their good fortune in finding two promising positions at a great university in a beautiful part of the country, and are very happy to be in Bellingham. In their spare time, they enjoy the outdoors with their new golden retriever puppy, and every once in a while, jam together (badly) to old-time tunes on the fiddle (Emily) and mandolin (Matt).

Mark Peyron



Mark Peyron is teaching in the general chemistry series for the 2005-2006 school year. This is a return engagement, as he taught part time eight years previously.

Mark is a chemical engineer who earned his B.S. from the University of Idaho and PhD from the University of Washington, where he studied polymer chemistry and materials science.

He has worked as a chemical process engineer for Weyerhaeuser and on hazardous waste remediation in Bellevue, Washington. He did research funded by the oil industry at Cambridge University involving applications of magnetic resonance in porous media. Recently, he has supported local manufacturers in Bellingham, Seattle and Vancouver. He is very happy to be back teaching chemistry at WWU. During the school year Mark will also be taking classes in science education to become a better teacher and to maintain the high standards set by the Chemistry Department.

Mark has helped teach mountaineering and avalanche awareness courses with the Bellingham branch of the Mountaineers and loves wandering the North Cascades. He and his wife Paula Meckel have a home in Bellingham. Look for them trotting around Lake Padden, though a bit slower every year.



Faculty

Stephanie Jonson



Stephanie Jonson joined the department in fall 2005 as a temporary instructor for Chemistry 101. In 1998 Stephanie earned her Ph.D. in Nuclear Chemistry from Washington University in St. Louis. Doctoral and postdoctoral research were performed at the university's medical complex developing steroid based breast cancer imaging agents for positron emission tomography. On-site cyclotron production of

C-11 and F-18 allowed for routine syntheses and research with these short lived radiotracers. As a compliment to the development of new imaging agents, Stephanie routinely produced [F-18] fluoroestradiol for patient studies. This interface of chemistry, physics, and medicine provided an energetic research focus. Concurrently with her postdoctoral research, Stephanie taught at the St. Louis College of Pharmacy as an adjunct chemistry faculty member.

Stephanie arrived in Bellingham in August of 2000 with her husband Erik and children. Living in St. Louis for seven years had produced a desire for the Jonsons to relocate to the Pacific Northwest to be close to Erik's family in Ferndale and Stephanie's family in Eastern Oregon. While Erik works as an electrical engineer for Anvil, Stephanie is occupied as a domestic engineer raising Nathan, Annika, and Joshua. Immersion in child development provided Stephanie with new insights into learning and produced a desire to return to college instruction.

As a complement to chemistry and parenting, Stephanie enjoys experimenting in the kitchen and designing sewing creations. Their home on Alabama hill is an ongoing remodeling effort inside and out. Stephanie reflects that this new season of life is filled with opportunities for learning, teaching, and serving and she is grateful for the experience.

Rose Theisen



Rose Theisen joined the department as a temporary instructor of General Chemistry 121 and 122 for the 2005-2006 academic year. She completed her Ph.D. in inorganic chemistry from the University of Washington in August 2005 and jumped at this opportunity to teach at Western.

Rose is originally from Appleton, Wisconsin. She did her undergraduate work at the University of Wisconsin - Madison where she graduated with a BS in Chemistry (2000). She spent the spring semester of 1999 studying abroad in Utrecht, the Netherlands. During the summer of that year, she completed a chemistry internship at Kimberly Clark Corporation in Neenah, WI. During her senior year at Wisconsin, she did an undergraduate research project in Judith Burstyn's lab which sparked her interest in synthetic organic and inorganic chemistry. She was given a Hilldale Undergraduate Research award for her work on the cleavage of phosphodiester bonds using copper catalysts.

After packing up and leaving the Midwest in July 2001, she started her graduate work at the University of Washington in Julie Kovacs' bioinorganic research lab. She immediately began a project that involved synthesizing model complexes of the cysteine-ligated non-heme metalloenzymes Superoxide Reductase and Nitrile Hydratase. Rose presented her research at two Gordon Research Conferences and two National ACS meetings. As a graduate student, she collaborated with three spectroscopic groups to study the Kovacs' bioinorganic model complexes. While attending UW she also taught inorganic lab to juniors and seniors, and she found she really loved interacting with students and helping them to explore their interests in chemistry.

Rose is very close with her family in the Midwest. Her younger brother, Andrew, is a senior at the University of Minnesota, and her parents, Marcia and Jeff, live in Appleton, WI. She lives in Fairhaven with her partner of eight years, Sean. He is an avid cyclist and loves the Pacific Northwest climate for cycling. In her spare time she likes to cook, practice ashtanga yoga, and travel.



Graduation



RECENT DEGREES AWARDED CLASS OF 2004/2005

Congratulations to our graduation class of 2004/05. Graduation honors and immediate post-graduation activities as known to us are in parentheses behind each graduate's name.

MS CHEMISTRY

Breia Lewis

(PhD Program, Boston Univ)

Daniel Van Wyk

(Forensic Scientist, Washington State Patrol Lab)

BA Chemistry

Erik Kellison

(Pharmacy Technician, Costco)

Susan Olsen

(2nd degree in German)

BS Chemistry and ACS Certification

Autumn Burns

(MS Program in Chemistry, WWU, Bussell Lab)

Craig Campbell

(MS Program in Chemistry WWU, Wicholas Lab)

Lance Culnane

(Graduate School, Univ of Hawaii)

Christopher DuFort

(Graduate School, Indiana Univ, Bloomington)

Andrew Edwards**Jonathan Egbert**

(PhD Program, Chemistry, Univ of Washington)

Jennie Fabian

(Masters in Teaching Program, WWU)

Rebecca Jensen

(Chemistry Dept Honors; Magna Cum Laude; Graduate Program, Inorganic Chemistry, Northwestern Univ)

Jennifer Johnson

(MS Program in Chemistry, WWU, Vyvyan Lab)

Phayvanh "Dang" Lameny

(Quality Assurance Specialist, Frontier Geoscience)

Andrea Lathrop

(Lab Technician, OHKA American, Inc.)

Mallela Magaña

(Biological Science Laboratory Tech, USDA Agriculture Research Center, Wenatchee)

Sara McGarvey

(Post Bac Program, WWU BA Biology/Anthropology)

Jeffrey McMahon

(PhD Program, Northwestern Univ)

Ronald Norwood

(MS Program in Chemistry, WWU, Patrick Lab)

Emmett Richards

Amalia Stevenson (Materials Chemist, Sienna Technologies, Woodinville)

Alta Thompson**Erik Werner**

(MS Program in Chemistry, WWU, Vyvyan Lab)

BS Biochemistry

Jeffrey Adamo

(with Blue Herron Biotech)

Marisa Bebee

(Magna Cum Laude; accepted to Univ of Washington Medical School)

Elizabeth Cargill**Lisa Cooper**

(PhD Program, Univ of Illinois, Urbana-Champaign)

Phillip Hull

(Medical Assistant, Univ of Washington Medical Center)

Brian Jeppesen

(Chemistry Dept Honors; Chemistry Department Outstanding Graduate Award; Cum Laude; applying to medical school)

Stephen Klebs

(2nd degree in Biology/Math)

Peggy Leviton**Adam Lin**

(Olympia real estate agent and is investigating MS Environmental Studies Program at The Evergreen State College)

Megan McLaughlin**Danielle Moore**

(planning to enter Masters in Teaching Program at The Evergreen State College)

Sean Morgan

(applying for dental school)

Calvin Murphy

(MS Program in Chemistry, WWU, Patrick Lab)

Rebecca Newhouse

(Magna Cum Laude; PhD Program in Chemistry/Biochemistry, Univ of California, Santa Cruz)

Justin Novotney**Laura Packer**

(Ph.D. program in Biophysical Chemistry, Boston University)

Laura Stoll (Chemistry Department Honors; M.S. program in Chemistry, WWU, Gentile Lab; accepted to Univ of Washington Medical School)

Awards

2004/2005

Chemistry Department Awards

Outstanding Chemistry Department Graduate

Brian Jeppesen

Chang Biochemistry Award

Brian Jeppesen

Hypercube Scholar

Rebecca Jensen

Outstanding Analytical Student

Nick Gislason

Outstanding Organic Series Student

Nicholas Clayville

CRC Press General Chemistry Award

Matt Holt



Biochemistry Faculty at the June 2005 Commencement

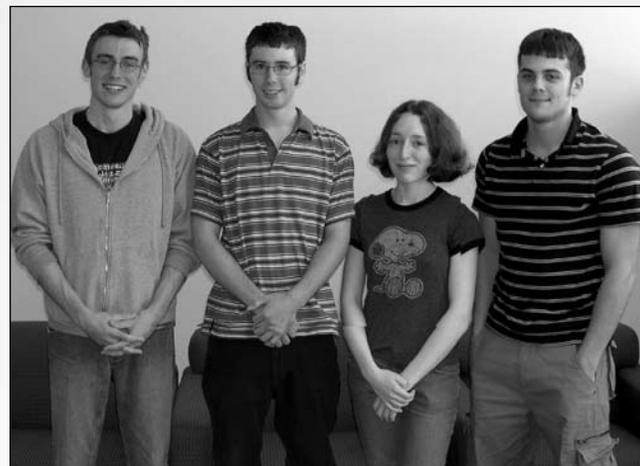
Left to right: Spencer Anthony-Cahill, Sal Russo, Lisa Gentile, Gerry Prody

Jeppeson Chosen for Awards

Brian Jeppesen was chosen as the outstanding graduate for the Chemistry Department and as the recipient of the Sea Bong Chang Memorial Award in biochemistry. During the last two years of his program at WWU, he participated in undergraduate research with Lisa Gentile. The project examined the folding of the Presenilin-1 protein and several of its pathogenic mutants that are known to cause early-onset familial Alzheimer's disease. Brian presented his research to the Protein Society Symposium in San Diego and to congressmen at the Posters on the Hill conference in Washington DC. He enjoyed the research opportunities offered at WWU and completed a departmental honors thesis.

After graduating in June 2005, he married Julie Potts, a WWU education graduate, and they spent their summer on the road to New York and back. Their trip included several stops for hiking in national parks and tours of major cities along the way. After returning to Seattle, Brian found a job doing research on an anticoagulant protein at the University of Washington where he is currently employed. Julie is teaching elementary music in Bothell.

Brian is currently pursuing a career in medicine. He is spending the year applying to medical schools while broadening his research experience at UW.



2004/05 Chemistry Department Award Winners

Left to right: Brian Jeppesen, Nick Gislason, Rebecca Jensen, Matt Holt *Missing:* Nick Clayville



Scholarships

2005/06 Scholarship Recipients

Knapman Senior Renewal Jennifer Angelosante	Tuition/Fee Waiver Alexandria Anderson Rebecca Swanson
Knapman Junior Award Tyler Mamiya	College of Sciences & Technology - Women in Science Scholarship Sandlin Preecs
Ruth Watts Female Research Scientist Sandlin Preecs	Biology & Chemistry Depts - Beckman Scholar Nick Gislason
Jerry Price/Nancy Sherer Nick Gislason	Hach Chemistry Education Scholarship Aime Champlin Andrea Davidson Karen Hasenoehrl Morgan Luce James Pearson Sian Thorton
Verna Alexander Price Jacqui Hawkins	
Barbara French Duzan Biotechnology Jessica Telleria	



2005/06 Chemistry Department Scholarship Recipients
Left to right, front: Nick Gislason, Jennifer Angelosante, Tyler Mamiya *Back:* Jacqui Hawkins, Sandlin Preecs, Jessica Telleria, Chad Merkel *Missing:* Alexandria Anderson, Rebecca Swanson

Alumni News

1960's

Jerry McEwen '66 works at the Technology Center at Roche Pharmaceuticals in Boulder, Colorado.

Jerry Couchman '69 spent 20 years in the Air Force after graduating from Western. During that time he flew fighter planes in Vietnam. In 1989, Jerry joined American Airlines as a pilot where he has been a captain for the past five years. When not flying, he lives in Ferndale with his wife Julia. Jerry custom builds wood furniture as a business.

Robert Matson '69, MS '71 had his first book published with CRC Press entitled, "Applying Genomic and Proteomic Microarray Technology in Drug Discovery". Bob also received three patents this year bringing his total to ten U.S. Patents.

1980's

Roger Koops '81, MS'83 is an independent consultant. He gave a 2-day course on Process Validation in Singapore. Roger tells us, "Asia is an up and coming pharmaceutical market but they are a little behind the US and Europe when it comes to some things, so there is good opportunity for giving these talks. It was my first time to Singapore. The equatorial region is a whole new world!"

William "Greg" Cox '82 is a freelance science fiction writer. His recent publications are "Fantastic Four: War Zone", "Alias: Two of a Kind?", "Underworld: Blood Enemy", "Star Trek: To Reign in Hell". Check out his website: gregcox-author.com.

John Peterson '82, MS '91 was granted tenure at Big Ben Community College in Moses Lake, WA.

Eric Jacobson '84, MEd '91 was on active duty with the Air Force for twenty years. After that he entered the Air Force Reserve and joined the ranks of federal civil service as a Logistics Program Analyst with the Department of Defense. He is still in Germany where he enjoys cycling and spending time with his daughter.

Brian Riley '86 is now an environmental assessor for the State of Washington. He also owns Riley and Associates, an environmental services business in Olympia.

Larry Wienkers '86, MS '88 received his Ph.D. in medicinal chemistry at the University of Washington and is now employed at Amgen in Seattle. He presented a seminar to us during winter quarter entitled "Cytochrome P450 Metabolic Inactivation: Understanding the Mechanism behind Mechanism-Based Inhibitors."

Lisa (Hammond) LaGrandeur '87 and **Tom LaGrandeur '85** came by to take a look at the building and catch up with Gary Lampman. Lisa is now Senior Clinical Development Associate with Eli Lilly and Tom is a patent attorney with Eli Lilly. Lisa's dad, Sid Hammond accompanied them on their visit. Sid

Alumni News

also has connections with the department through his other daughter, **Margo Hammond** '82. While an undergraduate Margo arranged to do demonstrations with elementary students at her dad's school. The Hammonds provided Western with two great B.S. Chemistry students, Lisa and Margo!

1990's

Marc Kirchmeier '90 left his position with Oakwood Laboratories in Ohio for a job with Corixa here in the Pacific Northwest. He subsequently accepted a position with Merck in West Point, Pennsylvania. He is still conducting biologics drug delivery research and developing monoclonal antibody therapeutics. Marc tells us, "... our oldest son, Kyle is graduating from college this May, 2006. He didn't want to follow in his father's footsteps, and is going to law school. Cole is seven and tells me he wants to be a professional football player, Madeline is four and, of course, she is a princess."

John Harold '92, MS '94 is teaching at South Puget Sound Community College of Olympia. He found beautiful acreage in Shelton, Washington where he custom built his home. His wife Diana has a position with a local hospital.

Wes Quigley '93, MS '95 received his Ph.D. from the Department of Chemistry at the University of Washington and is now employed at Boeing. He presented a seminar to us during winter quarter entitled "Analytical Chemistry at Boeing."

Matt Kaeberlein '97 was a Senior Fellow in the Department of Genome Sciences at the University of Washington and is now an Assistant Professor in Pathology at UW. His current research involves the study of genes that influence aging and longevity. Tammi (WWU Biology '97) and Matt have added another son, Jase Matthew, to their family.

Mitsuhiro "Mitsu" Tsuchiya '97, MS '01 coauthored a paper published in PLoS Genetics entitled "Increased Life Span due to Calorie Restriction in Respiratory-Deficient Yeast". Mitsu currently does research in the Biochemistry Department at the University of Washington.

Heather (Callery) Barrieau '99 and her family have survived the winters of Ohio. Her husband, Shawn, is concentrating on getting investors for his business. Heather is busy being a mom to daughter Madisen and son Nathan.

Karen Crary '99 completed her M.S. in Physical Chemistry in 2002 from Colorado University, Boulder. She is employed as a forensic chemist by the Washington State Crime Laboratory in Marysville, Washington.

Hawkins DeFrance '99 and his wife Melissa had a son named Brandon in January! Hawkins expects to receive his Doctorate of Pharmacy in April and has accepted a job as a nuclear pharmacist with Valley Medical Center in Renton, Washington.

Chris Holst '99, MS'01 is a Research Scientist with Albany Molecular Research in Albany, New York. Chris married Kim Hughes (WWU Spanish '99) and they spent their honeymoon on Maui. Kim is now a board certified RN and works in the neo-natal intensive care unit at Albany Memorial Hospital.

Meredith Morgan '99 completed her Ph.D. at Duke University in 2004 and is now a postdoctoral fellow working with Rocky Tuan in the Cartilage Biology and Orthopedics Branch of the National Institute of Health in Bethesda, Maryland. Meredith enjoys living on the east coast and has taken advantage of travel opportunities. She had quite an adventure with her boyfriend hiking the Inca trails in Peru!

Charlie Trimm '99 returned from his studies at Hebrew University in Jerusalem and is now studying at Northwest Baptist Seminary in Tacoma, Washington. Charlie is also working as a pastor in Bremerton ... "I am not doing anything with chemistry, but I have fond memories of my chemistry days!"

Paul Wadlow '99 is now project manager and manufacturing supervisor with Hollister-Stier. Paul, wife Abby, and son Aiden have moved into their new home.

2000's

Emily Peterson '00 currently lives in North Cambridge and is enjoying exploring the east coast with her boyfriend when she is not doing postdoctoral studies with Eric Jacobsen at Harvard.

Chuck Schelle '00 now teaches at Windward High School in Ferndale, Washington. He is the physics/chemistry teacher and enjoys his job immensely.

Kathleen Holt '01 was featured in Lockheed Martin's Today and the Business & Money section of The Sunday Journal of Albuquerque, New Mexico. She was recognized for her work in the community as a mentor and supporter of community causes. The articles noted that her "... career success is rooted in public service." Kathleen is a chemist and laboratory manager with Sandia National Laboratories. She is currently working on her master's degree in business administration at the University of New Mexico. Kathleen encourages those in industry to consider teaching in the sciences.

Rikki Larson '01 works for a pharmaceutical production company in Wyoming. She met the "cowboy of my dreams!" and they have wedding plans for fall 2006.

Amanda Murphy '01 completed her Ph.D. in Chemistry from University of California, Berkeley. Congratulations!

Barrett Nelson '01 is studying for his Master of Business Administration from University of Washington while working for Amgen.



Alumni News

Bevin Parks '01 is a graduate student at the University of Oregon, Eugene in James Hutchison's lab. Her project focuses on the synthesis and study of organic compounds for functional materials and other applications. Bevin gave a seminar fall 2005 here in the Chemistry Department.

Meagan (Lindstrom) Schurter '01 moved to San Diego after graduation to work in a crystallography lab at UCSD as a technician/lab manager. It was there she met her husband Brandon (a graduate student in biology). They were married in July 2002. She was subsequently employed in the biotech industry which was followed by being a case manager for developmentally disabled adults. Meagan and Brandon moved to Paris in spring 2005 where he has a postdoctoral position at the Pasteur Institute. They are having a wonderful time traveling and experiencing as much of Europe as possible.

Dwight Seferos '01 is finishing his Ph.D. in Materials Chemistry at University of California, Santa Barbara working for Gui Bazan. His project involves the synthesis of organic materials and their use for electronic applications. Dwight tells us "... had a lot of fun here at UCSB, although still worked on Saturdays! ... 2005 was a good year publication wise for me with an article in the Proceedings of the National Academy of Sciences. I just got back from presenting the work at a conference in Boston, and I am giving an invited talk at the Materials Research Society national meeting in April 2006." Dwight will also present his last project to National Institute of Standards and Technology in Maryland. He was appointed a Mitsubishi Chemical Distinguished Graduate Fellow for the 2005-06 academic year. He is looking forward to a postdoc appointment with Chad Merks at Northwestern University beginning in May 2006.

David '01 and Amy (Kendall) Shock '01 are in Australia. Immigration restrictions limit Amy from employment so she has the time and opportunity to travel around Australia.

John Flanagan '02 expects to complete his Ph.D. at the University of Virginia in May 2006. He was coauthor on a paper in Nature entitled "Double chromodomains cooperate to recognize the methylated histone H3 tail". He will begin a postdoctoral position at the University of British Columbia in August where he will be working on the structural biology of antibiotic resistance.

Rebecca (Zapf) Rogers '02 is pursuing her Ph.D. in organic chemistry at Colorado State University and "... ran into Dr. Vyvyan, one of my WWU professors, at a chemistry conference this summer. It was great to catch up and hear the happenings at WWU."

Aaron Schützer '02 is completing his studies towards a Juris Doctorate with Seattle University School of Law while working as a Patent and Legal Research Intern with ZymoGenetics in Seattle.

Luke Simpson '02 completed his nuclear medicine technology program December 2005 and has been hired by St. Josephs Hospital in Bellingham, Washington.

Nick Vincent-Maloney '02 is in San Diego working with Biosite in research and development. Nick is looking at graduate school as his next step.

Ben Edwards '03 married **Lee Knight '02** (Cellular & Molecular) in June 2005. Their wedding was held in beautiful Chilkat State Park, Alaska.

Casey Kulla '03 is finishing his masters degree in forest ecology through Huxley, WWU. He and his wife Katie plan to move to Oregon "... to start a small-scale, diversified vegetable farm!"

Christie Mitchell '03 started graduate school fall 2005 at George Washington University.

Peter Rademacher '03 is currently a graduate student in the Department of Medicinal Chemistry at the University of Washington.

Anton Stetner '03 has been selling real estate for two years with a full time assistant and a full time agent. "We closed 30 real estate transactions this year and hope to do 60 next year!" Check his website www.antonstetner.com! Anton is now married and lives in Marysville.

Kasey Messer '04 is enrolled in a Doctor of Pharmacy program at Washington State University. During her breaks Kasey will be working as a pharmacy intern in an Issaquah pharmacy.

Melanie Rehm '04 left for Chicago with fiancé **Jeff McMahon '05**. She is now a Chemist with Intertek Caleb Brett in Chicago. Melanie tells us that they both are doing great and love Chicago!

Danielle Moore '05 and **Adam Lin '05** bought a house in Olympia, just in time for the birth of their first child, a son named Phoenix, on February 12, 2006. To quote Danielle: "We decided to conduct a genetics experiment of our own and clearly achieved the best possible result."



Alumni Spotlight

Robert Mustacich



As a WWU undergraduate Bob enjoyed a three-year long research association with Mark Wicholas in the field of inorganic chemistry that resulted in two publications in the *Journal of the American Chemical Society*. He graduated Summa Cum Laude in chemistry in 1972.

That fall Bob started graduate study in physical chemistry at Harvard University. Bob's mentor was Ben Ware, a physical chemist who specialized in the characterization of macromolecules by laser light scattering and the use of Doppler shifts to study directed motion in molecular systems. Bob was very successful with a light scattering project and was the first researcher to use lasers to measure directed movement of protoplasmic components within living cells.

In graduate school Bob met Jeanette LaCosse, a graduate student in the M.A.T. program in Harvard's education department. They married in 1974 and raised three sons who are now scattered around the globe (Los Angeles, Paris, and Baku in Azerbaijan).

Bob studied with Gregorio Weber in the Biochemistry Department of the University of Illinois for two years starting 1976. Bob followed the movement of proteins across polar-nonpolar interfaces under the influence of an electric field and ligand binding using fluorescence spectroscopic techniques. This work modeled the movement of proteins in membranes under the combined influence of ligands and transmembrane potentials.

In 1978 Bob took a research scientist position with Procter and Gamble (P & G) in their Miami Valley Laboratories outside Cincinnati. He was responsible for biophysical and analytical chemistry research for an interdisciplinary pharmaceutical R&D team. Bob received his first patents at P&G in the area of medical devices and drug transport.

Tiring of R&D in a large corporate setting and longing to do something completely different back on the west coast, Bob left P&G in 1983, and he and his family moved to Santa Barbara, CA. He found work as a stock broker for Dean Witter Reynolds, which was an interesting challenge. The novelty of this job was exhausted after 2 years, but Bob had a client who

needed a research chemist for his government contract work. Imagine this fellow explaining to his boss that he wanted to hire his stock broker for a chemical R&D position! This provided a chance to start a new career as a chemist in Santa Barbara where he would remain.

Some very challenging R&D projects were awarded, and the environment was very entrepreneurial. In a period of 5 years Bob helped originate programs in portable analytical chemistry instruments (gas chromatography, mass spectrometry) and thin film polymers for electro-optics. In 1992, Bob saw the opportunity to start his own company while consulting to former employers to support his initial efforts.

Using his initials, Bob started RVM Scientific, Inc. in 1993 to pursue his ideas in nonlinear optical polymers and gas chromatography (GC) instruments. By 1994 he secured government research contracts in both fields and began hiring employees to help with the research. In 1995 an R&D project to minimize power consumption in gas chromatographs discovered an interesting phenomenon – the power consumption became mostly dependent on the surface area of the chromatograph with small mass designs. This led to some counterintuitive design concepts for GC instruments. The resulting patents were the springboard for commercialization.

RVM raised investor capital in 1999 to convert itself from an R&D organization to a manufacturing organization. RVM now sells a GC column assembly about the size of a hockey puck that contains a capillary GC column, integrated heating wire and temperature sensing, which performs the temperature programming of a large laboratory GC oven with only 1% of the power required by the large instrument. Because of the small mass, the RVM product also heats and cools extremely fast. This led to the development of add-on products for commercial gas chromatographs which can shorten analysis times by 10-fold or more.

For fun outside of work, Bob enjoys the arts and especially his love for music. In keeping with his creative outlook, he writes experimental music and has performed his music at the annual Burning Man Festival in Nevada. He has also designed and worn electroluminescent clothing at Burning Man that is computer controlled with embedded microcontrollers in the garment that control the various illuminated elements. He designed the electronic circuitry and wrote the software for this project.

Thank You to Donors

We wish to thank the following alumni and friends of the department who donated to the following Chemistry Department Western Foundation Funds during the 2004/05 academic year. Employers that matched donations are noted in brackets following the donors' names. Donations during the past year funded a variety of activities, including scholarship matching, academic awards, undergraduate research projects, small equipment purchases, and events for department majors and alumni.

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