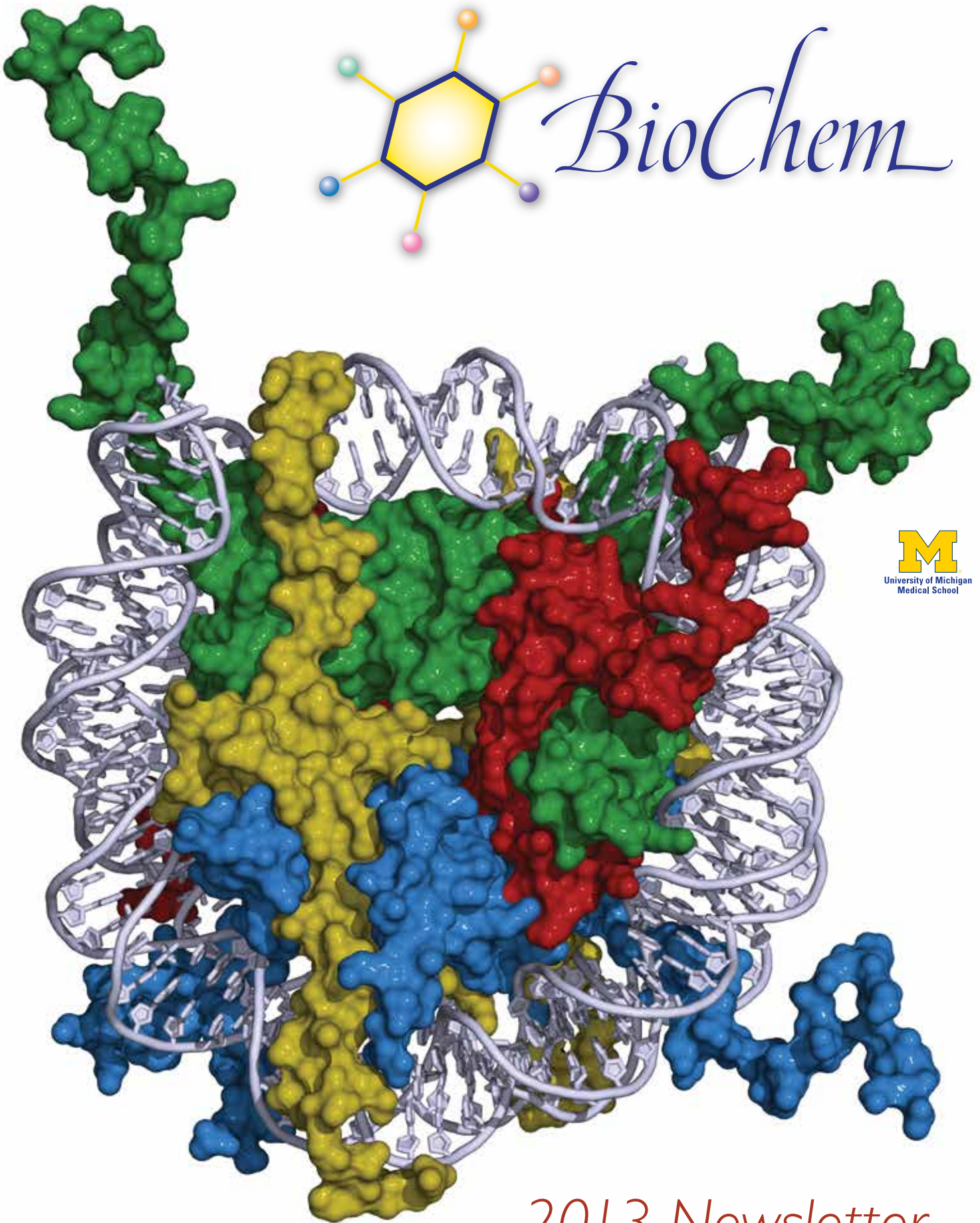


BioChem



2013 Newsletter

: Dr. David R. Engelke

Dear Colleagues, past and present,

I'm immeasurably grateful to Bill Smith for his continuing support, and for having steered the Department so successfully through perilous waters these last ten years. Many of you have been able to make it to the multiple celebrations of Bill's tenure as Chair. Although he protests that perhaps we were a little too happy to see him step down, I know he appreciated your congratulations as he gets to return his full attentions to his pursuit of science.

The academic year got off to a roaring good start with what has become the traditional Departmental Retreat at the Kellogg Biological Station at Gull Lake. We welcomed both the Ph.D. students into Biological Chemistry and the Program in Biomedical Sciences and the first cohort of five students in our new master's degree program (M.S.) in Biological Chemistry. As usual, the current graduate students did a terrific job of organizing both the scientific sessions and the social events, including the "Science Olympics". This symposium of biochemistry has continued into the fall, where an already interesting seminar series has been enhanced by two endowed lectureships. Bruce Hammock from UC Davis presented the William Lands Lecture, while Laura Kiessling delivered the Irwin J. Goldstein Lecture in Glycobiology. Other endowed seminars this past year were given by Gerhard Wagner for the Martha Ludwig Lecture, Thomas Meek for the G. Robert Greenberg Lecture, and Bruce Carter for the Distinguished Graduate Alumni Lecture.

Faculty members in the Department continue to be recognized for their contributions to the University and the scientific community. A more complete account is provided later in this newsletter, but the recognition includes teaching awards from the Endowment for the Basic Sciences to Jochen Schacht and Mike Uhler in 2012 and 2013, respectively. Carol Fierke has been named a Distinguished University Professor of the University of Michigan, and Jim Bardwell and John Tesmer were elected Fellows of the AAAS. Yang Zhang, a joint appointee in the Department of Computational Medicine and Bioinformatics, is

being awarded the Medical School Dean's Basic Science Research Award. Dr. Zhang's research focuses on the computational analysis of protein structures, and other faculty participants in the Medical School's new Protein Folding Diseases Initiative include Bob Fuller, Phil Andrews, Zhaohui Xu, Dan Southworth, Yiorgo Skiniotis, Dan Klionsky, Neil Marsh, and Ursula Jakob. This initiative is intended to open up new approaches to understanding and controlling disease states through protein structure, and the Department is playing a key role through its ongoing strength in protein structure determination. Other research areas also continue to flourish, with new, major grants being awarded this year to Steve Ragsdale, Phil Andrews, Pat O'Brien, and Aaron Goldstrohm.



I'm sad to report that the other change in our faculty this year was the passing of Professor Emeritus Prasanta Datta. I'm sure many of you remember Prasanta's many years as an upbeat and engaged role model in the Department, and Jud Coon recalls him in a piece later in this newsletter. His children, Sumana and Milton Datta, have established a Prasanta Datta Scholarship to help faculty, students, and fellows travel elsewhere to learn and import new technologies to the Department, a fitting way to honor Prasanta's lifelong passion for developing new skills and horizons.

As the Department tackles the challenges of the coming year we hope to build on the foundations laid by Prasanta and our many colleagues throughout the long history of the Department in educational excellence, integrity, and the pure joy of science. *Go Blue!*

Best regards,

The Endowed Lectureships : 2012–2013

Irwin J. Goldstein Lectureship in Glycobiology

James C. Paulson, Ph.D.

“Sialic acids as determinants of self”

September 18, 2012



Dr. James C. Paulson obtained his Ph.D. (Biochemistry) in 1974 from the University of Illinois at Urbana-Champaign, and did post-doctoral work at Duke University Medical Center, in Durham, North Carolina from 1974–78. From 1978–1990 he rose from Assistant Professor to full Professor and vice-chair in the Department of Biological Chemistry at the UCLA School of Medicine where he developed an interest in the analysis of receptor specificity for influenza viruses from different host species. During 1990–1999 he served as Vice President and Member of the Board of Directors of Cytel Corporation, La Jolla, CA. Since 1999 he has been a Professor in the Departments of Chemical Physiology and Molecular Biology at the Scripps Research Institute in La Jolla, California. Dr. Paulson served as the President of the Society for Glycobiology from 2002–2003, and currently serves on the National Academy of Sciences Glycoscience Committee. He is currently the Director of the Consortium for Functional Glycomics (<http://www.functionalglycomics.org>), an international consortium of over 500 investigators. His current research focuses on the roles of glycan binding proteins in the modulation of immune cell signaling and the receptor specificity of mammalian and animal influenza viruses.

William E.M. Lands Lectureship on the Biochemical Basis for the Physiology of Essential Nutrients

Noa Noy, Ph.D.

“New functions for an old vitamin: Cell signaling by retinol and its serum binding protein RBP”

October 30, 2012

Dr. Noa Noy earned a B.Sc. in Biology, M.Sc. in Biochemistry, and Ph.D. in Geophysics and Planetary Sciences at Tel Aviv University in Israel. Her Ph.D. thesis focused on



the origin of the colors in the atmospheres of Jupiter and Saturn’s largest moon, Titan. She undertook post-doctoral training at the Weizmann Institute of Science, at the University of California, San Francisco, and at Cornell University Medical School in New York City. She joined the faculty in the Department of Medicine at Cornell Medical School in 1983.

In 1986, Noa Noy transferred her laboratory to the De-



partment of Nutritional Sciences at Cornell University in Ithaca, New York, where she developed a research program aiming to understand the molecular mechanisms by which the transcriptional activities of lipophilic hormones are regulated and the functional consequences of these activities for cell function. Of special interest to her research team are the biological functions of vitamin A and its nuclear receptors and binding proteins in health and in disease states such as cancer and the metabolic syndrome. She was recruited to the Department of Pharmacology at Case Western Reserve University School of Medicine in 2007.

Noa Noy is a member of the Editorial Boards of the *Journal of Biological Chemistry* and *Adipocyte*. Her research has been funded by the National Eye Institute, National Cancer Institute, National Institute of Diabetes & Digestive & Kidney Diseases, the Charlotte Geyer Foundation, the American Cancer Society, and the Susan G. Komen Breast Cancer Foundation.

Martha Ludwig Lectureship in Structural Biology

Gerhard Wagner, Ph.D.

“Structures and Interactions of Eukaryotic Translation
Initiation Factors”

November 13, 2012



Dr. Gerhard Wagner is the Elkan R. Blout Professor in the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School.

Gerhard Wagner studied Physics at the Technical University in Munich. He obtained his Ph.D. from the ETH Zürich in 1997 under the direction of Kurt Wüthrich on NMR studies of protein internal mobility. After a short

time at MIT working on solid-state NMR with John Waugh he returned to the ETH where he developed methods for protein resonance assignments and structure determinations. From 1987 to 1990 he was a faculty member at the University of Michigan in Ann Arbor where he developed triple-resonance methods for protein assignments and developed procedures for studies of protein dynamics. In 1990 he moved to Harvard Medical School. His current interests are on the structural biology of gene expression, eukaryotic translation initiation, transcriptional activation, immunology and apoptosis. He is also interested in membrane protein structures and small molecule inhibitors of protein-protein interactions. Dr. Wagner has made numerous contributions to NMR methodology and this aspect continues to remain a major focus of his research.

G. Robert Greenberg Lectureship in Biological Chemistry

Thomas D. Meek, Ph.D.

“Mechanistic Studies on Two Enzyme Drug Targets:
Cathespain C and ATP Citrate Lyase”

May 1, 2013



Dr. Thomas D. Meek received a B.S. degree in Chemistry from the University of Virginia in 1976 and a Ph.D. in Organic Chemistry from the Pennsylvania State University in 1981 where he investigated the enzymatic mechanism of glutamine synthetase. From 1981 to 1984, Dr. Meek served as a postdoctoral scholar at the University of California, San Francisco where his research involved the study of the enzymes of purine and pyrimidine metabolism of parasitic protozoa.

In 1984, Dr. Meek joined the Department of Medicinal Chemistry at SmithKline & French Laboratories in Philadelphia, where he conducted research in inhibitor design and mechanistic elucidation of numerous therapeutically relevant enzymes such as carbomoyl-phosphate synthetase, hydroxymethylglutaryl CoA reductase, and most extensively, the retroviral protease of the human immunodeficiency virus. In 1992, he became Director of Cardiovascular Biochemistry at Bristol-Myers Squibb Pharmaceutical Research Institute, and managed a department looking for therapeutic regulators of seven-transmembrane domain receptors, enzymes, and ion channels. In 1996, Dr. Meek rejoined SmithKline Beecham Pharmaceuticals to direct the Department of Molecular Recognition, which was involved in research in enzymology, RNA-directed drug targets, receptors, and also in technology development for high-throughput screening platforms. Additionally, research within this group led to discovery of the molecular identity of the beta-secretase activity associated with Alzheimer's Disease. In 2000, Dr. Meek became the world-wide vice-president of Screening Sciences at GlaxoSmithKline Pharmaceuticals, which had responsibilities for implementation of high-throughput screening and compound management activities and infrastructure. Currently he is worldwide vice-president of Biological Reagents & Assay Development, a department which is responsible for provision of cell lines, purified proteins, antibodies, and assays in support of drug discovery programs. Dr. Meek is the author of more than 60 publications.

The Distinguished Graduate Lecture

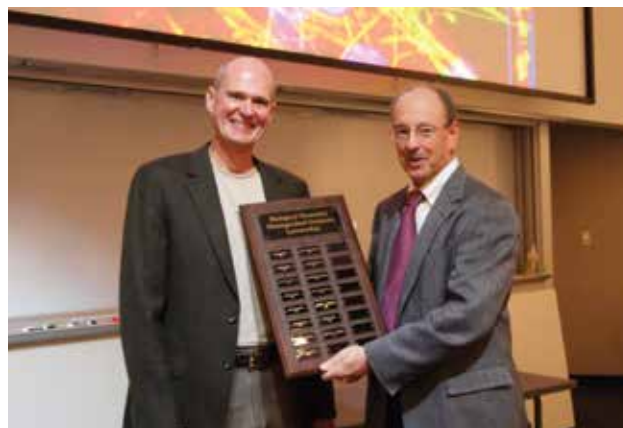
Bruce D. Carter, Ph.D.

"Eating the dead: Mechanisms of neuronal apoptosis and clearance during development of the PNS"

May 29, 2013

Dr. Bruce D. Carter obtained his B.S. from Alma College in Michigan, and then went on to complete his Ph.D. in Biological Chemistry at the University of Michigan in 1992. His doctoral thesis research focused on the mechanisms of opioid receptor signaling through G-proteins and was carried out in the laboratory of Dr.

Fedor Medzihradsky. He then did postdoctoral research in the laboratory of Dr. Yves-Alain Barde at the Max Planck Institute in Munich, Germany where he began his studies on neurotrophin signaling mechanisms in the development of the mammalian nervous system, focusing on the p75 neurotrophin receptor. After three years at the Max Planck Institute, Dr. Carter continued his studies on signal transduction through the p75 neurotrophin



receptor at Cornell University Medical School under the guidance of Dr. Moses Chao. In 1997 he joined the faculty at Vanderbilt University School of Medicine in the Department of Biochemistry where he continues to study p75 receptor signaling during development and in neuropathologies. Recently, he also has been investigating how the many apoptotic neurons generated during normal development are cleared in order to prevent an inflammatory response. In addition, he and his research team have been investigating the mechanisms regulating the formation of myelin in the peripheral nervous system. Dr. Carter has risen through the ranks to full professor and is also a member of the Vanderbilt Brain Institute and a Kennedy Center Investigator. Dr. Carter has trained numerous Ph.D. students and postdoctoral fellows. He has played an active role on multiple NIH review panels and journal editorial boards and was elected as a AAAS Fellow in 2011. For more information, please see his laboratory website: <http://www.brucecarterlab.com/index.html>.



Biological Chemistry
at University of Michigan

Alumna Spotlight : Lucy J. Sannes Ph.D.

Lucy J. Sannes Ph.D., M.B.A. is currently President of Sannes and Associates, a management and marketing consulting firm located in Bellevue, Washington.

Lucy Sannes graduated from Pomona College and joined the Ph.D. program in the Department of Biological Chemistry at the University of Michigan. Lucy was



awarded her Ph.D. in 1979, in record time, working with Dr. Donald Hultquist in Biological Chemistry. The title of her thesis was “Kinetics and Mechanism of Methemoglobin Reduction”. Drs. Don Hultquist, Dave Ballou, Vince Massey, Donald Rucknagel and George Brewer were on her Ph.D. thesis committee.

After leaving Michigan, Dr. Sannes went to the University of Illinois Medical Center in Chicago for postdoctoral training. From the beginning of her time at Michigan, she knew that she wanted to work in industry – her interest was driven by the question, “This is great science, but what can you do with it?” So after a year of postdoctoral work, she joined Abbott Laboratories in their diagnostics division. While there, she shifted into the business and management side of the company. After five years with Abbott, Lucy moved to Seattle and joined Genetic Systems where she worked for four years on the management side of the business.

Dr. Sannes and her late husband Donald Barron then launched a biomedical consulting business. For the past

twenty years, Lucy has been consulting in the areas of market research, business development and strategic planning in the biosciences through her company Sannes & Associates, Inc. During her career in the Seattle area, Dr. Sannes also obtained an M.B.A. from Seattle Pacific University.

Dr. Sannes has made a bequest that will go to support graduate education in the biomedical sciences at the University of Michigan. Dr. Sannes’ gift will support the EDGE Scholarship program, which provides recognition and funding support to top graduate students within the University of Michigan’s biological sciences. EDGE Scholars represent the “Leaders and Best” among our students and the program offers recruitment and retention incentives to enhance Michigan’s competitiveness among basic science graduate programs around the nation and throughout the world. In recognition of this gift, she was honored with membership in the John Monteith Legacy Society. This society is named for John Monteith (1787-1868), founding father and president of the institution called the University of Michigania from 1817-1821. This institution later became the University of Michigan. We are greatly appreciative to Dr. Lucy Sannes for making her bequest gift on behalf of our biomedical graduate students, the first such gift ever designated to benefit all of the University’s basic medical science departments.

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Faculty News

Jim Bardwell was elected as an AAAS Fellow in 2012. This is an honor bestowed upon members by their peers. Fellows are recognized for meritorious efforts to advance science or its applications.

Carol A. Fierke was named a Distinguished University Professor at the University of Michigan. The Distinguished University Professorships recognize exceptional scholarly and/or creative achievements, national and international reputation, superior teaching and mentoring, and an impressive record of service. Dr. Fierke was also honored by the Center for the Education of Woman at the University of Michigan with the Carol Hollenshead award for excellence in promoting Equity and Social Change. She was chosen for this award based on her leadership in transforming her department into a national model of diversity, inclusiveness and excellence.

Ursula Jakob co-chaired the Gordon Research Conference “Stress proteins in Development and Disease” in July of 2013.

Jochen Schacht received the 2012 Biological Chemistry Department Teaching Award from the University of Michigan Medical School Endowment in Basic Science (EBS) Committee.

Audrey Seasholtz received the 2013 University of Michigan Neuroscience Graduate Program Outstanding Faculty Service Award.

Bill Smith co-organized the Fall Symposium on Lipid Mediators 2013 that was sponsored by the University of Michigan and Cayman Chemicals.

John Tesmer was elected as an AAAS Fellow in 2013. This is an honor bestowed upon members by their peers. Fellows are recognized for meritorious efforts to advance science or its applications. Dr. Tesmer was also named the Cyrus Levinthal Collegiate Professor in the Life Sciences at the University of Michigan.

Ray Trievel co-organized the ASBMB Symposium on Transcriptional Regulation that was held in Snowbird, Utah in October 2012.

Ray Trievel and **Yali Dou** co-organized the inaugural Spring Symposium on Epigenetics that was held in April 2013. The symposium was sponsored by the Departments of Biological Chemistry and Pathology in conjunction with Cayman Chemicals.

Michael Uhler will receive the 2013 Biological Chemistry Department Teaching Award from the University of Michigan Medical School Endowment in Basic Science (EBS) Committee.

Anne Vojtek was awarded a 2013 Elizabeth C. Crosby Research Award. These awards are funded by ADVANCE at the University of Michigan to help meet career-relevant needs of individual instructional, research, and clinical track faculty in science and engineering.

News of Former Department Faculty

Jack Dixon former Professor and Chair of our department, was honored by a symposium organized by the Howard Hughes Medical Institute held on his seventieth birthday, June 16, at the University of California in San Diego. The symposium, “Celebrating Science with Jack Dixon,” recognized his elegant research that has radically advanced our understanding of cell signaling and the molecular basis of pathogenesis. He was instrumental in the analysis of protein tyrosine phosphatases (PTPases). His pioneering work on the catalytic mechanism of these enzymes showed that they function via a novel cysteine-phosphate intermediate. Dr. Dixon also discovered that *Yersinia pestis*, the bacterium responsible for the plague or “black death”, harbors the most active PTPase yet described. This enzyme functions as a “lethal weapon” when injected into mammalian cells, blocking the host immune response. This mechanism is now recognized as a widely used strategy for pathogenic bacteria to disarm the host’s immune system. Dr. Dixon’s interest in phosphatases led to analysis of the tumor suppressor protein PTEN, which shares sequence

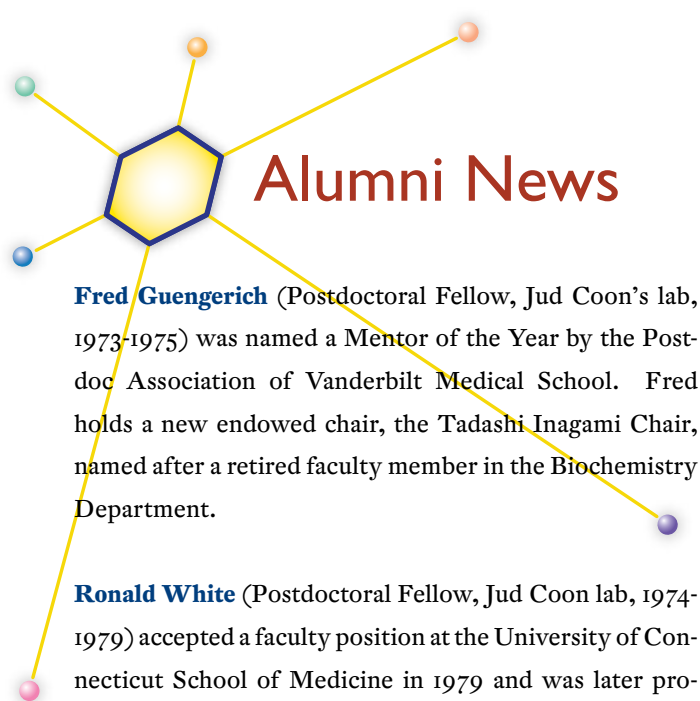
identity with the PTPases. He showed that PTEN dephosphorylates a key cellular phospholipid (PIP₃). Loss of PTEN elevates PIP₃ levels, promoting cell survival and tumorigenesis. Following his retirement from HHMI, he has returned to UCSD to continue to be a powerful advocate for biological and biomedical research.

A Professorship has been named for **Lila Miller**, Ph.D., former faculty member in Biological Chemistry.

The College of Literature, Science, and the Arts has announced that Dr. Dena Goodman will now have the title of Lila Miller Collegiate Professor of History and Women's Studies. Lila Miller received her Ph.D. degree in our department in 1936 with Professor Howard Lewis as her thesis mentor. She spent a postdoctoral year in Copenhagen at the Carlsberg Laboratories and then accepted a faculty position here at the University of Michigan. She retired as associate professor emerita in 1971. As an early female faculty member in the Medical School, she helped establish the University of Michigan's Women's Research Club and became its president. Dr. Dena Goodman's inaugural lecture at the Rackham Amphitheater was entitled "Episodes in the History of Intellectual Sociability: From the French Enlightenment to the University of Michigan."

About the Cover

Ray Trievel served as the guest editor for *Biopolymers'* special issue focusing on chromatin modifying enzymes that was published in February 2013. In addition, he and his graduate student, Rob Fick, co-authored an introductory article on chromatin modifications. Rob also designed the figure illustrating the crystal structure of the nucleosome core particle that was featured on the cover of this issue. The molecular surfaces of the core histones H2A (yellow), H2B (blue), H3 (green), and H4 (red) are depicted, and the nucleosomal DNA (light blue) is illustrated in stick representation. The nucleosome serves as a substrate for many chromatin modifying enzymes, including histone methyltransferases and demethylases studied in the Trievel lab.



Alumni News

Fred Guengerich (Postdoctoral Fellow, Jud Coon's lab, 1973-1975) was named a Mentor of the Year by the Postdoc Association of Vanderbilt Medical School. Fred holds a new endowed chair, the Tadashi Inagami Chair, named after a retired faculty member in the Biochemistry Department.

Ronald White (Postdoctoral Fellow, Jud Coon lab, 1974-1979) accepted a faculty position at the University of Connecticut School of Medicine in 1979 and was later promoted to Associate Professor of Pharmacology. He then decided to switch over to industry, working with Schering-Plough and Bristol-Myers Squibb. After retiring from Bristol-Myers Squibb as a Distinguished Research Fellow in late 2010, he started his own pharmaceutical consulting company, White Global Pharma Consultants, LLC, based in Cranbury, New Jersey. WGPC, of which he is President, provides scientific, strategic, and regulatory advice and training covering a broad range of medicinal chemistry, pharmacological, toxicological, and pharmaceutical sciences. Although he consults for a number of U.S. and international companies, his biggest client is the National Institutes of Health, where he consults on new drug discovery with the Office of Translational Research of NINDS. Ron is also an Adjunct Professor of Chemical Biology in the Laboratory of Cancer Research, School of Pharmacy, Rutgers University.

Kerry Fluhr (Ph.D., Rowena Matthews lab, 2000) is now an Intellectual Property Manager at CSIRO in the Food, Health, and Life Science Industries Group in North Ryde, Australia.

Rebecca Taurog (Ph.D., Rowena Matthews lab, 2006) has accepted a tenure track position as Assistant Professor of Chemistry at Williams College in Williamstown, MA.

Rebecca Haeusler (Ph.D., Dave Engelke Lab, 2007) has taken a position as Assistant Professor at Columbia Medical Center.

Mohamed Abazeed (Ph.D., Robert Fuller Lab, 2008) has completed his residency and fellowship in Radiation Oncology at Harvard in 2013, doing research in lung cancer genomics with Matthew Meyerson and Peter Hammerman. He has accepted a position as Assistant Professor of Radiation Oncology at the Cleveland Clinic Foundation.

Heather (Dickson) Giebink (Ph.D., Anne Wojtek lab, 2012) is currently a Graduate Student Administrator and Lecturer for the Biochemistry and Molecular Biology Program at Pennsylvania State University.

Swathi Krishnan (Ph.D., Ray Trievel Lab, 2012) is now a postdoctoral fellow in the laboratory of Dr. Danny Reinberg at New York University.

Dave Pai (Ph.D., Dave Engelke Lab, 2012) is now a postdoctoral fellow with Dr. Gerald Joyce at Scripps Research Institute.

Nathan Blewett (Ph.D., Cell and Molecular Biology, Aaron Goldstrohm Lab, 2013) is now a postdoctoral scientist at the National Institutes of Health (NICHD) in Dr. Richard Maraia's laboratory.

Jamie Van Etten (Ph.D., Aaron Goldstrohm Lab, 2013) is now a postdoctoral scientist at the University of Minnesota in the laboratory of Dr. Subbaya Subramanian.

Jonathan Whicher (Ph.D., Janet Smith Lab, 2013) has accepted a postdoctoral position with Dr. Rod MacKinnon at Rockefeller University.

Student News

Student Achievements & Recognition

Curtis Powell (Daniel Goldman Lab) was awarded a prestigious Rackham Predoctoral Fellowship for 2013-2014. This fellowship includes tuition, stipend, and grad care health insurance for three terms.

Joseph Micucci (Donna Martin/Daniel Bochar Labs) was awarded a 2012-2013 Ruth L. Kirschstein National Research Service Award studying "Characterization of Chd7 in central nervous system neural stem cells".

Swathi Krishnan (Ray Trievel Lab) was awarded a best poster prize at the ASBMB Symposium on Transcriptional Regulation that was held in Snowbird, Utah in October 2012.

Rackham Graduate Student Research Grants

The following Biological Chemistry graduate students received Rackham Research Grants between September 2012 and October 2013: **Robert Fick** (Trievel lab), **Rahman Navaz Gangji** (Goldman lab), **Anna Ganios** (Thompson lab), **Liliya Mancour** (Skiniotis lab), **Curtis Powell** (Goldman lab), **Samuel Slocum** (Sherman/J. Smith labs), **Jamie Van Etten** (Goldstrohm lab), **Noah Wolfson** (Fierke lab), and **Allison Zimmerman** (O'Brien lab).

Rackham Graduate Student Travel Grants

The following Biological Chemistry graduate students received Rackham Travel Awards between September 2012 and October 2013: **Jenna Hendershot** (O'Brien lab), **Michael Howard** (Fierke lab), **Joseph Micucci** (Martin/Bochar labs), **Erin Miller** (O'Brien lab), **Curtis Powell** (Goldman lab), **Jennifer Rauch** (Gestwicki lab), **Eric Tse** (Southworth lab), **Nathan Raynard** (Goldstrohm lab), **Jamie Van Etten** (Goldstrohm lab), **Cody Vild** (Xu lab), **Chase Weidmann** (Goldstrohm lab), **Noah Wolfson** (Fierke lab), and **Elia Wright** (Fierke lab).



New PostDocs

Sojin An received her B.A. in 1999 and her M.A. in 2001 from Ewha Womans University and her Ph.D. in 2009 from Yonsei University, both located in Seoul, South Korea. *Mentor:* Dr. Uhn-Soo Cho

Kristine Angevine received her B.S. from Loyola University of Chicago in 2008 and her Ph.D. from the University of Toledo in 2012. *Mentor:* Dr. David Engelke

Gregory Campanello received his B.S. from Butler University in Indianapolis in 2006 and his Ph.D. from Indiana University, Bloomington, in 2013. *Mentor:* Dr. Ruma Banerjee

Kanishka de Silva received his B.S. in 1998 from the University of Ruhana, Sri Lanka, his M.S. from Cornell University in 2005 and his Ph.D. in 2013 from the University of Arkansas, Little Rock. *Mentor:* Tom Kerppola

Angela Fleischhacker received her B.A. from Carleton College in Northfield, MN in 2002 and her Ph.D. from the University of Michigan, Ann Arbor, in 2007. *Mentor:* Dr. Stephen Ragsdale

Hanseong Kim received his B.S. in 1998 and his M.S. in 2001 from Korea University. He then earned a M.S. from the University of California at Davis in 2005 and his Ph.D. in 2012 from Arizona State University. *Mentor:* Dr. Uhn-Soo Cho

Marouane Libiad received his M.S. in 2008 and his Ph.D. in 2012 from the University of Lorraine in France. *Mentor:* Ruma Banerjee

Billy Samulak received her BS in 2007 from the University of Michigan, Flint, her MS in 2009 and her Ph.D. in 2013 from the University of Michigan, Ann Arbor. *Mentor:* Dr. Phil Andrews

Philip Smaldino received his B.S. from SUNY, Fredonia in 2006, his M.S. from SUNY, Buffalo in 2008 and his Ph.D. from Wake Forest University in 2013. *Mentor:* Dr. David Engelke

Thanyaporn Wongnate received her B.S. in 2007 and her Ph.D. in 2011 from Mahidol University in Thailand. *Mentor:* Stephen Ragsdale

In Memoriam

Prasanta Datta, former professor, died at age 84 in Bryan, Texas. He was born in Calcutta, India. After obtaining his B.S. and Master's degrees in Biology at the University of Calcutta, he traveled to the University of Washington, where he obtained his Ph.D. in Botany. He arrived at the University of Michigan's Department of Biological Chemistry in 1968 as an Assistant Professor, where he would spend his entire academic career. His research spanned basic enzymology to cancer biology to gene sequencing. He may be best known for describing how enzymes and their products work together to regulate biological pathways in a process he termed Concerted Feedback Inhibition. Prasanta was actively involved in undergraduate and graduate teaching, retiring as professor emeritus in 1998. Prasanta's faculty colleagues and students found him to be a fine friend, and he was admired for his impartial and thoughtful advice. His son Milton in Minnesota (email: mdatta@gmail.com) and daughter Sumana in Texas (email: suma.datta@gmail.com) are generously establishing the Prasanta Datta Memorial Scholarship to allow faculty, postdocs, or students to travel elsewhere to adopt new technologies to aid their research. Donations by others can be sent to Dr. David Engelke, Interim Chair of the University of Michigan, Department of Biological Chemistry.



Annual Student Awards



The Minor J. and Mary Lou Coon Award

Presented to the student who exhibits overall excellence in research, teaching, and service to the department, this award honors Professor Coon, former Chair of the department, and the late Mary Lou Coon, who provided the gifts that support this award.

Awardee: *Mark Taylor*

Mentor: Patrick O'Brien, Ph.D.



The Lee Murphy Memorial Prize

Presented to the student who embodies the highest ideals of scientific integrity and who has published a paper or a series of papers judged most significant by the Awards Committee, this award is named in honor of Lee Murphy, an alumnus of this department.

Awardee: *Gerwin Westfield*

Mentor: Georgios Skiniotis, Ph.D.



The Dziewiatkowski Award

Dedicated to the memory of late faculty member Dominic D. (Jay) Dziewiatkowski, this award is presented to the student who has submitted the most outstanding Ph.D. dissertation during the last academic year.

Awardee: *Swathi Krishnan* (*Unavailable for photographs*)

Mentor: Raymond Trievel, Ph.D.



The Adam A. and Mary J. Christman Award

Presented to a third-year student judged to be the most outstanding in that class, the Christman Award is named in memory of former long-time faculty member Professor Adam Christman.

Awardee: *Jenny Rauch (Unavailable for photographs)*
(Accepted by Cody Vild on Jenny's behalf)

Mentor: Jason Gestwicki, Ph.D.



The Halvor N. and Mary M. Christensen Award

Presented to a second-year student on the basis of academic record, this award is given in honor of the late Mary M. and Professor Emeritus Halvor N. Christensen who served as Chair of Biological Chemistry from 1955–1970. Mary and Halvor Christensen generously provided the original gift that supports this annual award; their daughter Karen Christensen-Gray has also generously donated funds to support this award.

Awardee: *Andrew Sikkema*

Mentor: Janet Smith, Ph.D.



The Anthony and Lillian Lu Award

Presented to a student on the basis of academic background, achievement in the graduate program, and potential as a scientist, this award is made possible by a generous donation from the Lu family.

Awardee: *Manila Hada*

Mentor: Roland Kwok, Ph.D.



Ph.D. Degrees Granted



Justin R. Hassler, Ph.D. October 18, 2012

“Dissecting the biological function of the Unfolded Protein Response sensor Ire1 α through gene deletion”

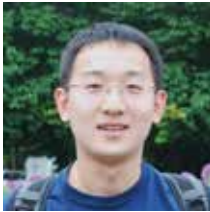
Mentor: Randal J. Kaufman, Ph.D.



Swathi Krishnan, Ph.D. November 2, 2012

“Structural and Biochemical Insights into Methylation Site and State Specificity of JMJD2 Lysine Demethylases”

Mentor: Raymond C. Trievel, Ph.D.



Siyan Cao, Ph.D. March 4, 2013

“Endoplasmic Reticulum Stress in Intestinal Epithelial Cells and Inflammatory Bowel Disease”

Mentor: Randal J. Kaufman, Ph.D.



Sean P. Ferris, Ph.D. March 28, 2013

“UDP-glucose:glycoprotein glucosyltransferase (UGGT1) promotes substrate solubility in the endoplasmic reticulum”

Mentor: Randal J. Kaufman, Ph.D.



Claudia Alejandra McDonald, Ph.D. March 28, 2013

“The Enzymology of the Monooxygenase Domain of MICAL-2”

Mentor: Bruce A. Palfey

2012–2013



Liliya V. Mancour, Ph.D. April 3, 2013

“Structural Dynamics of Transmembrane Signaling Complexes by Negative Stain Electron Microscopy”

Mentor: Georgios Skiniotis, Ph.D.



Michael W. Lofgren, Ph.D. June 25, 2013

“Auxiliary Proteins and Allosteric Control of the Mitochondrial Branch of B₁₂ Trafficking, Assembly and Reactivity”

Mentor: Ruma Banerjee, Ph.D.



Gerwin H. Westfield, Ph.D. August 29, 2013

“Molecular Electron Microscopy of Signaling Protein Complexes”

Mentor: Georgios Skiniotis, Ph.D.



Jamie L. Van Etten, Ph.D. September 6, 2013

“Regulatory Mechanisms and RNA Targets of Human Pumilio Proteins”

Mentor: Aaron C. Goldstrohm, Ph.D.



Joseph Micucci, Ph.D. October 30, 2013

“The role of ATP-dependent chromatin remodeling enzyme CHD7 in the development and maintenance of murine neural stem cells”

Mentors: Donna M. Martin, M.D., Ph.D. and Daniel A. Bochar, Ph.D.



New Ph.D. Students



Wallace Chan received his Bachelor of Science degree in Biochemistry from The University of Texas at Austin in May 2008 and his Master of Science in Biotechnology from The Hong Kong University of Science and Technology in April 2010.

Mentor: Dr. Yang Zhang



Karina Kangas received her Bachelor of Science degree in Chemistry from San Diego State University in California in May 2011.

Mentor: Dr. Patrick O'Brien



Justin McNally received his Bachelor of Science degree in Biochemistry and Biology from the State University of New York at Potsdam in May 2012.

Mentor: Dr. Patrick O'Brien



Meredith Skiba received her Bachelor of Arts degree in Chemistry from Bryn Mawr College in Pennsylvania in May 2012.

Mentor: Dr. Janet Smith



Erika Martinez-Nieves obtained her Bachelor of Science degree in Physics/Chemistry from the University of Puerto Rico at Mayagüez in May 2012.

Mentor: Dr. Stephen Ragsdale



New M.S. Students

The Department of Biological Chemistry welcomes its inaugural class for the Master's degree in Biochemistry. The Master's in Biochemistry is an intensive one-year program with two major components, graduate level coursework and research, culminating with a written dissertation. The program is expected to help students prepare for future careers in biotechnology, the pharmaceutical industry, and for entry into competitive professional programs. Applications are currently being accepted for our second class starting Fall 2014.



Amin Ali received his Bachelor of Medicine, Bachelor of Surgery (MBBS) degree from the University of Khartoum, Sudan in January, 2011.

Mentor: Dr. Raymond Triebel



Mariam Ayyash received her Bachelor of Science degree from the University of Michigan, Dearborn in April 2013.

Mentor: Dr. Robert Fuller



Rahaman Navaz Gangji received his Bachelor of Science degree from Trinity University, San Antonio, TX in May 2013.

Mentor: Dr. Daniel Goldman



Ashish Rao received his Bachelor of Engineering degree from Sri Jayachamarajendra College of Engineering in Mysore, India in June 2013.

Mentor: Dr. Michael Uhler



Allison Zimmerman received her Bachelor of Science degree from the University of Michigan, Ann Arbor in May 2013.

Mentor: Dr. Patrick O'Brien



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David Engelke, Ph.D., Interim Chair or

Melinda Warden, Chief Department Administrator

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1150 W. Medical Center Dr., 5301 MSRB III, SPC 5606

University of Michigan Medical School

Ann Arbor, MI 48109-0600

T: 734.763.0185 / F: 734.763.4581

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