



6/28/2021

Message from the Editor:

First, I hope that you and your loved ones have persevered through the challenges of the pandemic. I hope that the recovery process continues as we regain a sense of normalcy. Second, I was recognized for 15 years of service at McMurry which means that this is the 15th year I have interacted with alumni and put together an alumni newsletter. I was named the new faculty liaison to the McMurry Science and Math Advisory Board (SMAB) which is described at the end of the Alumni News segment below. If you wish to get involved with other math and science alumni to serve your alma mater, please let me know. Finally, I also wish to update the department display case on the second floor of the science building. The display case always has held the plaques that recognize the winners of the Outstanding Senior Award, but I would like to fill the rest of the case with profiles of you, our alumni. Those of you who have already been profiled in a publication by McMurry will be the starting point. Additionally, some of you have sent me stories over the past 15 years of what you have been doing since leaving McMurry and with your permission I plan to include these as well with any updates you send (or perhaps a picture to go with the story). However, I would like to open this invitation to all of you. Whether you are a recent or not so recent graduate, continue to work in a science-related field or have not thought about chemistry since you stepped off the graduation stage, I want to hear from you. I want current students that stop to look at the display to see all the varied experiences that our alumni have had. Thank you in advance!

Sincerely,

Dr. Edward Donnay

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Alumni News:

With the pandemic canceling in-person homecoming last fall and stopping everyone from traveling, we did not see or hear from many alumni this year. If you need to get out of your house and wish to stop by McMurry, we would love to see you and talk with you. We also like hearing from our alumni via mail or email. Drop us a note when you can.

Dr. W. L. Magnusson ('59), aka "Wimpy", stopped in for a visit and toured our renovated biochemistry lab spaces on September 14, 2020. Dr. Magnusson was a chemistry faculty member from 1963-1969 when the Finch-Grey Science Building was built and opened. We enjoyed a nice conversation with him.

Dr. Richard Collins ('69) replied to last year's newsletter saying that he remembered the Science Building as a new building, never again aging in his memory. It seemed weird to him that a "new" building needed renovations, but fifty years have flown by. The current building replaced the Quadrangle which he described as "quaint, but without air conditioning". He also relayed the story about working part-time in the labs during the summer of '66 and still smelling something that had spilled and soaked into the wooden floors of the stockroom years earlier. There was no working fume hood in the old Quadrangle. Dr. Collins retired 13 years ago, and he and his wife Joanne live in Florida where they enjoy life on the water. They have traveled to over 50 countries. Richard is the district president of the Saint Vincent de Paul Charlotte County District. He has volunteered as a science fair judge, helped build a Habitat for Humanity home, and worked on a variety of fund raisers.

Ms. Aletha Williams ('04) has won the 2021 Outstanding Alumni Award for Math and the Sciences. It will be presented to her at the Night of Distinction event during homecoming on October 15th. Aletha Williams, an Affinity Group creator, called Change Agents of Katy ISD, helps to get more teachers of color into the teaching profession. She is a 2020-2021 Teach Plus Ready to Lead Fellow, a 2019-20 Teach Plus Texas Senior Policy Fellow, and a 2019-18 Teach Plus Texas Policy Fellow. She has been a teacher for 14 years. Aletha currently teaches 10th-grade academic chemistry and is the team lead for the academic chemistry team for Patricia Paetow High School in Katy ISD. Aletha is an active member of several districts and national science programs and organizations. She is a part of the Teaching and Learning Council created by Educate Texas. She has spoken with many Texas House of Representatives and Senate members about education policies to improve HB3, mental health, etc., in schools. Aletha was a TED-ED innovative educator and worked on a project to help teachers learn about literacy and project-based learning for ELLs. After receiving her degree from McMurry University, she received a BS in Biology and a minor in Secondary Science from West Texas A&M, and an MS in Educational Technology, Media, and Design from Full Sail University. She is finishing her Ph.D. in Curriculum & Instruction for STEM Education from Texas Tech University.

Dr. J. Eric Chacon ('07-Natural Science), his wife Rebecca, and older sister Ella welcomed son Eli Eric Chacon to the family on October 4, 2020. Congratulations to the Chacons!

Dr. Allison White ('08) and her husband Adam Nachbar announced the arrival of Camden Charles Nachbar to the world on April 24, 2021. Congratulations!

Dr. Tara (Williams) Farmer ('12) and her husband Jace welcomed their first child Grayson James Farmer on July 3rd, 2020. Congratulations Tara and Jace!

Congratulations to Mukundwa K. Gael (ex'17) for completing his D. Pharm. degree from the University of Tennessee! Dr. Gael will soon begin his new position as a PGY1-Resident at The Johns Hopkins Hospital.

The McMurry Science and Math Advisory Board (SMAB) is an organization of science and math alumni that donate time and resources to their alma mater. Members interact with current faculty and students to provide mentorship and guidance. Participation is even easier now that virtual meetings and presentations are more familiar to us all. SMAB funding priorities include Charles and Lisa Bloomer Research Stipends for students and supporting student academic travel to professional meetings and conferences. If you would like to know more about SMAB, you can visit, <http://academics.mcm.edu/smab/> or contact Dr. Edward Donnay at donnay.edward@mcm.edu.

Departmental News:

The department would like to congratulate the following students who won academic awards this past year: Ernesto Valle, Jr – Outstanding Senior, Benny Todd and M. David Voogd – Outstanding Juniors, Honna Turner – Outstanding Sophomore and Dr. W. Norton Jones Chemistry Scholarship, Caryn Lawrence – Outstanding Freshmen. In addition, Anelisa Valenzuela was awarded the John Oliver Wallace Memorial Scholarship, Benny Todd received the Dr. Victor Tsang Endowed Scholarship and M. David Voogd continues to receive a Ward-Bottom Science Scholarship Award.

The department is happy to introduce a new graduate this spring: Ernesto Valle, Jr.! Ernie is an Air Force veteran who started taking classes at McMurry University in the summer of 2017. By taking courses during the summer sessions and with transfer hours, Ernie completed all the requirements for a Biochemistry major plus minors in Math, Physics, Biology, and Business Administration. He graduated with Departmental Honors after conducting research with Drs. Shin and Pyenta and completing an honors thesis (see below). Ernie served as president of the Chemistry Club and was heavily involved in both the Biology club and the Society of Physics Students. He was elected into Sigma Pi Sigma, the Physics Honors Society. Ernie also won the Don Allen Memorial

Award given to McMurry University's outstanding non-traditional graduate. He is currently exploring employment opportunities after graduation. Congratulations Ernie!

Lara Meyer is a post-baccalaureate student who took general chemistry at McMurry University in the 2018-19 academic year and has taken multiple science courses since then. She has done excellent work as a peer leader in the Supplemental Instruction program helping other McMurry students with chemistry. She has done research with Drs. Shin and Pyenta. Her husband serves on active duty at Dyess Air Force Base. She has completed the necessary coursework and is applying to medical schools. Congratulations, Lara!

A second post-baccalaureate student, Sonyea Woolfolk, took both general and organic chemistry at McMurry the last two years after serving in the Air Force. As her husband is also finishing his service at Dyess, they are moving away from Abilene. She plans to finish taking the prerequisite coursework and then apply to pharmacy schools. We wish Sonyea the best of luck going forward!

The Chemistry Club won a 2019-2020 Student Chapter Award from the American Chemical Society. The digital badge appears to the right and the award also came with a wooden plaque. For the 2019-2020 academic year, ACS awarded 72 chapters outstanding, 99 chapters commendable, and 120 chapters with an honorable mention. This year the focus of the club was on the spring national ACS meeting scheduled to be held in San Antonio, but due to the pandemic it was changed to a virtual meeting. Still, the club took advantage and streamed some of the presentations from the national meeting during a club lunch get together.



The first recipient of the Dr. W. Norton Jones endowed professorship was named in April. It is Dr. Malaney O'Connell ('11) who is a faculty member in the Department of Biology, but does research in both biochemistry and cancer biology. The professorship endowment is for a minimum of three years and provides annual resources to support chemical research with undergraduate students. Read more about her research below. Well done, Dr. O'Connell!

Departmental Research:

The goal of Dr. O'Connell's research as part of the professorship is to utilize scanning electron microscopy to visualize the physiological microenvironment of breast cancer cells grown in a 3D environment in order to understand how changes in collagen expression promote invasion and metastasis. By understanding the structure of specific collagens in the microenvironment of tumors, she hopes to better understand the functional role these specific collagens may be playing in metastatic breast cancer. The funds from the professorship will be used to support student work including stipend support, travel to conferences, research materials, and publication costs.

All department travel to conferences with students was suspended this past year due to the pandemic. However, research in the department continued. Under unusual conditions, students did research in summer 2020 and gave presentations at the end of the summer. Senior Ernesto Valle, Jr. completed an honors thesis in the spring of 2021 based on his research with Drs. Shin and Pyenta. The title of his thesis was "Design, Synthesis and Dual Efficacy of Fluorine Derivatives as Histone Deacetylase and Metallo- β -Lactamase Inhibitors" and he defended his thesis with an oral presentation. A video recording of his oral presentation was done using a camcorder purchased by the department because of the pandemic. We hope to post the recording to our department website soon.

In the summer of 2021 the department has six undergraduate students conducting research on the Welch Foundation Departmental Grant: M. David Voogd, Anelisa Valenzuela, and Benny Todd are all returning for a second summer, while Rebecca Blankenship, Caryn Lawrence, and Reid Smith are participating in research for the first time. Anelisa, Benny, Rebecca, and Reid will work with

Drs. Shin and Pyenta on a collaborative project to evaluate histone deacetylase inhibitors as anticancer agents against two different cancer cell lines, MDA-MB-231 and MCF-7. Synthesis of the inhibitors occurs in the Shin laboratory while the Pyenta laboratory grows and maintains the cancer cell lines for testing. Other aspects worked on in the two groups include computational docking studies and isolation of possible anticancer compounds from West Texas plants. David and Caryn will be working with Dr. Donnay to synthesize new ligands and metal complexes that bind to DNA and may be useful for photodynamic therapy. Another project is to determine whether toxic solvents used in the synthesis of metal precursors can be substituted with a new biodegradable bio-sourced alternative.

School and Miscellaneous News:

The Department of Physics received a Department of Education Title V grant (McMurry's second) to support renovations of the area on the first floor used for upper level physics courses, the hiring of a faculty member to develop a program in Engineering Physics, and a STEM Student Success Center. The renovations began after classes ended in May with asbestos abatement. When the physics faculty started to remove some of the cabinets, they found some equipment that had been hidden away by Dr. Bottom. It was like a time capsule. The new faculty member, David Upshaw ('07-Physics), began on June 1, and Tammy Werner ('08-Math & Art), who had been working at McMurry as a math instructor, was hired as a professional tutor to staff the success center.

McMurry will complete the third year (of five) on the first Title V grant in October. This year of the grant saw the beginning of the Human Health Science program and the arrival of Dr. Bradley Blackwell, who put together a program in Sustainability and Renewable Resources, which will start in the fall of 2021. A scanning electron microscope (SEM) was obtained and installed in the biology department. The renovations to the greenhouse, which added an outdoor classroom on the north side, were completed and an open house was held in April in conjunction with Earth Day. Another goal of the Title V grant is to strengthen ties with 2-year schools so that students can transfer smoothly to get a 4-year STEM degree. Therefore, the next year of the grant will focus on the partnership with Cisco College.

There has been substantial change in the cabinet level at McMurry. Mr. Grant Greenwood was hired as the new Vice President for Enrollment Management last year, Dr. Matt Draud was named the new Vice President for Academic Affairs last summer, and Mr. Michael Hutchinson (a McMurry alumnus from 1987) was just announced as the new Vice President for Institutional Advancement. Dr. Draud has a background in Biology and initiated a restructuring of the academic units and installing division chairs to oversee them. The Department of Chemistry and Biochemistry is in the Division of Science and Mathematics as expected, but Computer Science is now in the Johnson School of Business and Human Health Science was placed into a division with the Departments of Kinesiology and Psychology.

Dr. Tikhon Bykov in the Department of Physics was announced as the first recipient of the Dr. Virgil E. Bottom Endowed Professorship in Physics. The professorship is analogous to the one named after Dr. W. Norton Jones. Dr. Bykov was also named Chair for the Division of Science and Mathematics. In addition to those two titles he remains the Chair of the Physics Department and will coordinate aspects of the new Title V grant. Dr. Bykov will be a very busy man!

40 Years Ago in the Department

(Below are news items and excerpts from the department newsletter from May 1981. The entire newsletter can be seen under the "Department News" tab on our website, www.mcm.edu/chemistry)

"Among our graduating seniors of last summer and this spring we had one B.A. graduate and five B.S. graduates." They were Donna Jean Anderson, Buddy Fisher, Carl Mumford, Tim Simpson,

Laurel Van Winkle, and Brenda Wilmott. "Miss Anderson was honored with the outstanding senior award in Chemistry."

"The Gamma Sigma Epsilon Chapters sponsored a picnic for the graduating seniors in science. The picnic was co-sponsored by GSE and Beta Beta Beta (Biology). On a Friday afternoon the members and guests picniced(*sic*) at Abilene State Park. ... During the last week in March, Vernon Farthing, Linda Sellers, Debbie Begin and Dr. Sonntag attended the GSE convention in Columbus, Mississippi on the campus of Mississippi University for Women."

"During the past year the department has obtained a Cary 210 UV-Visible spectrophotometer with funding from an NSF instrument grant. The Cary 210 will be used primarily in research to obtain the absorption spectra from 200 to 800 nm of newly synthesized transition-metal complexes. An Apple II Plus microcomputer has also been obtained and will be interfaced with the Cary 210 to speed up the process of data collection and reduction." *The department still has this instrument and it is in the process of being refurbished by the physics department.*

"Dr. Klassen will continue to do research on the synthesis and spectroscopic properties of rhodium complexes on a grant from the Welch Foundation. Mansel Harris and Linda Sellers will assist him with the research project during the next year."

Alumni Search:

For the following alumni we have no contact information. If you know the contact information for one of these alums, we welcome your sharing that information with us, or you might contact that person and ask him/her to contact us.

Mohamad Dareshori '63

Gayle Hart Long '64

Michael Haralson '68

Susan Arth '75

Gregory Guy Alexander '79

John Walrath '80