Dr. Gregory Schultz
Professor, Obstetrics and Gynecology
Director, Institute for Wound Research at the University of Florida
Pg. 19

SCIENTIST

2018
Dear All,

Since our last newsletter, I am happy to report more stellar highlights on the student, faculty and departmental donation fronts. Of the Undergraduate Program graduates that I gave recent exit interviews to (42 total): 31% were going on to medical school; 12% were going onto graduate school; and one was accepted into a life sciences program at Harvard! In addition, out of the 48 OSU Seniors of Significance, 8 were students from our department and of these, 2 were awarded with the OSU Outstanding Senior award. We continue to attract the attention of the finest students on the OSU campus and continue to prepare students for medical programs. Near and dear to all of the faculty and myself, we also produce students prepared for additional training to become future scientists.

The Biochemistry and Molecular Biology faculty continue to forge ahead and acquire new research grants to support their laboratory research efforts, and provide graduate and undergraduate students opportunities to conduct cutting-edge research. Our own Regents Professor Robert Matts and Professor Junpeng Deng with their students Dr. Shuxia Peng (postdoctoral) and Dr. Maurie Balch (recently graduated from our department with Ph.D.)
recently published work on heat shock protein 90 inhibitors in Nature Communications. Dr. Mats also received the prestigious Regents Distinguished Research Award. Our plant geneticist/molecular biologist Professor Ramanjulu Sunkar is very possibly on his way to become one of the most highly cited life scientists in OSU history!

Our incredible alumni Professor Gregory Schultz (he is the gentleman on the cover of this newsletter and more importantly, an international leader on wound healing and anti-scarring research) as well as Professor Arlan Richardson (leading international authority on aging, who treats it like a disease) both made major donations to our Department this year which will impact all of our students! Professor Schultz and his wife Ruth donated $50,000 to establish the Dr. Gregory and Ruth Schultz Endowed Graduate Student Fellowship Fund and Dr. Richardson donated another $10,000 to our Undergraduate and Graduate Research Fund. The earnings from these funds will be used to support scholarships, travel, and research project expenses of our incredible graduate and undergraduate research students. Thank you, Dr. Shultz, Ruth and Dr. Richardson!

When I first arrived in the Department, I met and came to know an exceptional colleague who was very helpful to me. I would often find him at our office front desk where he was making someone smile and I would always challenge him with questions from departmental history, to “how do you think I am doing”. He would always take time with me, and with an anecdote, a story, a quote, or a finely tuned joke, that was always relevant to my question, he would help solve any concern or answer any question I brought up. It was rare during our interactions that he did not have a bright smile and more often than not, our interactions got a smile out of me, even on some of my most difficult days. If I had a minor problem that I discussed with him, he would often simply state, “Don’t you have better things to do than worry about
that?"......I often agreed with his assessment. On that note, I am very sad to belatedly report that my colleague and friend Professor Eldon C. (E.C.) Nelson, passed away with loved ones by his side. Today I sorely miss E.C., but I know that he will remain a Departmental legend and the kind, past mentor of certainly more than a thousand OSU students. E.C. had a great affection for this department, and he worked tirelessly to help a large swath of our students. Dr. Richardson’s contribution to our Undergraduate and Graduate Research Fund was made on behalf of E.C.’s passing. Many other BMB citizens also gave to this fund on behalf of E.C. and our collective thanks go out to all of you!

If our Department helped you in your journey to success, we would greatly appreciate you giving back to any one of our foundation accounts. We are working hard to get the “Recognition by Women of Biochemistry and Molecular Biology” account endowed. This award is designed to celebrate the contributions of our incredible female citizens past and present, and provides an award that recognizes the graduate student (male or female) that produced the most impactful publication, or the graduate student that demonstrated the greatest potential to succeed in science!

In closing, I wish all of our BMB alumni and their loved ones the best! Come by and see me if you are in town, we can go for a coffee, and if you have any E.C. anecdotes to share, I would love to hear them! I greatly enjoy learning about the history of our Department through the personal experiences of our incredible alumni!
Sarah Oliver

Sarah Oliver, one of our very own Biochemistry and Molecular Biology students, was a finalist for the 2018 Harry S. Truman Scholarship during her junior year. Sarah was selected as one of the 194 finalists from the 756 candidates that the Truman Foundation committee reviewed. The Truman Scholarship, which was created in 1975, is awarded to individuals based on the accomplishments and leadership qualities of the candidates, as well as their potential to become public servants. The scholarship provides each awardee $30,000 to cover costs associated with graduate school.

With her Biochemistry and Molecular Biology major, Oliver has prepared herself academically to apply to law school, and in the future, she intends to work as a patent attorney. Sarah hopes to be able to use her degree to ascertain the unique and novel aspects of biotechnology discoveries that make them patentable.

Part of Sarah’s passion to serve the public stems from her travel experiences. She has enjoyed service expeditions in many countries including the Philippines where her mother lives. Observing the lifestyles and cultures in these locations has provided her a life changing experience that few get to witness.

Sarah looks forward to law school and eventually obtaining her juris doctorate. Oliver hopes to then be able to use her skills to advance human ingenuity and help provide opportunities for novel technology that can then support a wide sect of society. Along with being named a finalist for the Harry S. Truman scholarship, Sarah Oliver was also named a 2018 Women for OSU Scholar.
Technical Meeting Recognition

November 3, 2017—Rogers State University, Claremore OK

Dr. Nathaniel J. Torres of Dr. John E. Gustafson’s laboratory received the award for the Best Graduate Paper of The Academy from the 106th Technical Meeting of the Oklahoma Academy of Science Collegiate Academy Awards (2017) for his presentation entitled, “A closer look at a tea tree oil-selected Staphylococcus aureus small colony variant”. Tea tree oil (TTO) is an over-the-counter steam distillate that contains a high concentration of antimicrobial terpenes that target and destroy the membrane and protein structures in bacteria. TTO-reduced susceptibility S. aureus mutants demonstrated: slowed growth; reduced susceptibility to TTO, antimicrobial terpenes, alcohols and cell wall-targeting antibiotics; a diminutive cell size; and a thinned cell wall.

Analyzing proteomics data generated in our own Proteomics Core Facility, metabolomics data and physiological experimentation, Dr. Torres hypothesized that this phenotype results in: defective fatty acid biosynthesis; reduced translation; altered central metabolism; and reduced glycolysis and gluconeogenesis. This research provides another glimpse into how pathogens might resist the action of antimicrobials that inactivate/inhibit multiple targets within bacteria. Nate graduated with his Ph.D. from our Department in August and has moved on to a Postdoctoral position at the University of Southern Florida. Bon voyage Dr. Torres, we all hope you find some time between experiments (doubtful?) to enjoy the beaches of Tampa!!!
Seniors of Significance

Every academic year, the Oklahoma State University Alumni Association names a selection of graduating seniors to be titled OSU’s Seniors of Significance. Biochemistry and Molecular Biology and Biochemistry majors were well represented this year and made up eight of the total 48 Seniors of Significance! We always like to say that our Department garners the interests of the best OSU students!

BIBM – College of Agricultural Sciences and Natural Resources
- Micah Gillezeau
- Taylor Neilson
- Libby Schultz
- Madison Slawson
- William Starr
- Caleb Wilson

BIOC – College of Arts and Sciences
- Alicia Aguilar
- Stephanie Ferrante

Outstanding Seniors

From the 48 students picked to be Seniors of Significance this year, 14 were awarded further with the title of Outstanding Seniors. The Outstanding Senior award recognizes seniors who excel through academic achievement, campus and community activities, athletic or extracurricular honors or award, scholarships and work ethic during their time at OSU. Two CASNR Biochemistry and Molecular Biology seniors, William Starr and Caleb Wilson, earned the Outstanding Senior award this year.
Student Biographies

A handful of Biochemistry and Molecular Biology students have been asked to provide their opinions on their lives in order to capture the many different walks of life our students hail from. Their perceptions clearly describe our student’s eclectic thoughts on what it means to be a Biochemistry and Molecular Biology Cowboy.

Eston Blair

Eston Blair is a graduating Biochemistry and Molecular Biology major from Tulsa who appreciates the natural sciences, philosophy, theology, and socializing with friends. Blair is an accomplished pianist of seventeen years who has extensive experience accompanying vocal and string ensembles. Eston was even offered an opportunity to page-turn for renowned pianist Anne-Marie McDermott, at the McKnight Chamber Music Festival, which he says was a profound experience.

Upon graduating, Eston will enter the St. Meinrad School of Theology in Indiana as a Catholic seminarian. Afterwards, he may have the opportunity to attend the Pontifical North American College in Rome for four years of graduate theology studies. At the end of these studies, Eston will be ordained as a Catholic priest.

Eston prioritizes interpersonal relationships as a staple. Eston declares, “A community held by a common bond of friendship encourages everyone to delve into their studies and to develop character. Any improvements made to a department should consider promoting this aspect.” Naturally, we all wholeheartedly agree with Eston’s advice!!

Delton Hall

Delton Hall, from Amarillo Texas, was the 2016-2017 Delta Nu Alpha (Biochemistry Club) president. Hall is currently completing a dual degree in Biochemistry & Molecular Biology and Microbiology(Cell and Molecular Biology, as well as a minor in Chemistry. When Delton graduates he plans on attending medical school in order to fulfill his dream of becoming a physician. Delton believes that a key aspect to an enriched academic experience is getting to know your faculty and classmates. The Biochemistry and Molecular Biology major is effective at bringing people together and can lead to
amazing opportunities. Delton states, “The department is filled with hard workers looking to make their students experience the best it can be.”

Along the way, Delton has been able to provide a helping hand in the journey of others. As the president of the Biochemistry Club, Delton was honored with the duty of providing a place for our impassioned students to gather and form relationships with one another. Delton states, “Representing the Biochemistry Club has been an experience that has molded my communication and leadership skills. This is something that I will always be thankful for.”

**Matthew Lowrie**

Matthew Lowrie is currently a senior Biochemistry and Molecular Biology major, and a student employee in the Department of Biochemistry and Molecular Biology main office. Matthew enjoys getting to know people and learning about their passions and what drives their happiness. He will more than likely continue on into a medically-related field. Lowrie states, “I leave myself open to other influential routes that may pop-up in my life. As a departmental student worker I have become acquainted with many brilliant and talented individuals in the Department, each with their own reassuring contribution and insight into my own development. I have enjoyed the communication with each departmental citizen, and I have played an important role sprucing up laboratory space and cold rooms, as well as walls and the community areas within the Department. It is cliché to say, but I would not be where I am today if it were not for those that I work with”. Matthew Lowrie was also nominated for Student Employee of the Year. All of the Staff and the Department Head adore having Matthew in our main office!
Saibra Journey

For Saibra Journey, helping out her community is now a way of life. The senior Biochemistry and Molecular Biology major began volunteering at the Muscular Dystrophy Summer Camp at the age of sixteen, and she has since volunteered at this camp every summer.

“At this camp, we provide love and caring for children ages 6 to 17 who were born with a neuromuscular disease. For an entire week we help them with their particular needs ranging from making sure they are getting their stretches and physical therapy. Then helping them bathe and get dressed and fed. There is a feeling of love everywhere during these very personal interactions that spur myself and all the volunteers on.”

Saibra says that at the Muscular Dystrophy Summer Camp everyone feels at home. There is equality amongst everyone at the camp as they share their experiences with one another.

“Regardless what my summer plans look like, I always attend camp. It has become part of my life and I will not give it up.”

Saibra’s involvement in the summer camp peaked her interest in the field of genetics. She realizes that the love that she possesses towards people suffering from neuromuscular disease, can be amplified by her experiences in the Biochemistry and Molecular Biology Department, where she is learning how genetics can play an instrumental role in many different human diseases. Saibra’s younger brother was diagnosed with a neuromuscular disease called Duchenne Muscular Dystrophy and she finds herself studying the dystrophin gene mutations that cause this disease and the effects these mutations have on cell physiology. More importantly, she is very interested in deciphering how these cellular alterations can affect the entire patient.

Saibra intends to attend medical school and become a pediatric geneticist. Afterwards, she plans on owning a genetics clinic somewhere in the great state of Oklahoma! She states, “I want people to understand the importance of everything that goes into their genetic make-up. I want to bring the advancement of genetics testing and counseling to Oklahoma to further our states medical health mission and decrease the rate of inherited genetic diseases.”
Distinguished Regent’s Research Award

The Department of Biochemistry and Molecular Biology’s Regents Professor Robert Matts was awarded the prestigious Oklahoma State University Regents Distinguished Research Award during 2017.

“The RDRA recognizes research excellence at Oklahoma State University and is given to those that demonstrate outstanding and meritorious achievements in research. The candidates must demonstrate a distinguished record of past and continuing excellence in research, and be clearly recognized nationally and internationally.”

Award winners were granted a $2,000 increase in annual salary, associated benefits and an honorary award plaque. Dr. Matts is recognized for his research on mechanisms involved with protein-folding and activity, cancer development, and the mechanism of action of anticancer compounds. Dr. Matts also works tirelessly as our graduate program coordinator, and we all are lucky to have him in our Department!

Highly Cited Faculty Member

Our own Professor Ramanjulu Sunkar was once again named to the Clarivate Analytic’s 2017 Highly Cited Researchers list. This list recognizes the most impactful scientists in various fields, and Dr. Sunkar was one of 1,644 researchers recognized in the United States in 2017. This is the fourth year in a row that Dr. Sunkar has met the qualifications for this recognition. It is probable that Dr. Sunkar will become one of the most highly cited life scientists in the history of OSU. The entire Department benefits by Dr. Sunkar’s incredible productivity!
Highly Recognized Research

Regents Professor Matts, Professor Junpeng Deng, Dr. Shuxia Peng and Dr. Maurie Balch worked collectively on a paper that has been published in Nature Communications, one of a handful of truly premier science journals. Their paper entitled, “Structure-guided design of an Hsp90β N-terminal isoform-selective inhibitor”, was published on January 30th 2018.

“The 90 kDa heat shock protein (Hsp90) is a molecular chaperone responsible for folding proteins that are directly associated with cancer progression. Consequently, inhibition of the Hsp90 protein folding machinery results in a combinatorial attack on numerous oncogenic pathways. Described herein is a structure-based approach to design isoform-selective inhibitors of Hsp90β, which induces the degradation of select Hsp90 clients without concomitant induction of Hsp90 levels. Together, these initial studies support the development of Hsp90β-selective inhibitors as a method to overcome the detriments associated with pan-inhibition. “

If you are looking to read this incredible research publication, here is the article link: https://www.nature.com/articles/s41467-017-02013-1

Common Space Renovation

In order to increase the utilization of our public spaces for studying, as well as student and departmental get-togethers, the Biochemistry and Molecular Biology Department main office staff have begun updating departmental furniture. These efforts have created an inviting atmosphere for all departmental citizens and new areas for quiet study are now available for our students.
Student Organizations

OFFICERS OF THE BIOCHEMISTRY CLUB - DELTA NU ALPHA

Front left to right: Tegan Maxson - Secretary; Nicole Brinker - Ag Council Rep.; Lauren Oliver - Ag Council Rep.; Back left to right: Madeline Lee - Volunteer Coordinator; Austin Hinds - President; Rachel Williams - Vice President; Brockton Keen - Treasurer; Not Pictured: Kristy Johnson - Public Relations; Sarah Soliman - Arts & Sciences Liaison

OFFICERS OF THE BIOCHEMISTRY AND MOLECULAR BIOLOGY GRADUATE STUDENT ASSOCIATION

Left to right: Alexander Lim - GPSGA Representative; Victoria Kingdom Tabb - Secretary; Jeremy Sabo - President & Faculty Representative; Lawrie Gainey - Vice President; Bryan Naidenov - GPSGA Representative; Claudio Galvez Sagastume - Treasurer
The Biochemistry of Volleyball Champions!

Delta Nu Alpha, the undergraduate Biochemistry Club, won the first-place title at the 2017 Dean’s Volleyball Tournament during the CASNR week celebration. Athleticism and Biochemistry and Molecular Biology knowledge definitely go well together. Imagine the amount of ATP that was utilized for this win, considering that humans consume their body weight in ATP during the course of a normal day!

Sikta Patnaik

Sikta Patnaik, a member of Professor Junpeng Deng’s lab, was awarded the 2018 Women’s Faculty Council Student Research Award, which is accompanied by a $750 prize. The Women’s Faculty Council Student Research Award is designed to bring attention to the variety of incredible research activities occurring at OSU. Sikta continues to work hard in the Department of Biochemistry and Molecular Biology on protein structure and function. Recently she acted as a “chaperone” for OSU students enjoying the Department’s study abroad program in Italy and Switzerland with Professor John E. Gustafson.
Study Abroad Trip 2018

The Biochemistry and Molecular Department Head, Dr. John E. Gustafson, and graduate student Sikta Patnaik accompanied a group of nine students on a study abroad trip to Switzerland and Italy at the end of May. The group arrived in Milano Italy, stopped for lunch in Torino, and checked into a hotel in Cuneo. The first full day of the trip began by visiting La Botterà, a family run farmhouse dedicated to high quality cheese making. The city of Cuneo also provided an interesting place for exploration later that day. The following day the group rode to Parma and toured Salumificio La Perla, which is a certified Parma ham factory. The next day began with a drive to the business incubator HubMilan to learn about a business named “Water with a Mission” that sells bottled water products in order to raise funds to provide drinking water in developing countries. After the visit, the group drove to the National Museum of Science and Technology to learn about all the contributions of Leonardo da Vinci. After the museum visit, everyone toured La Scala opera house, Sforza Castle (built with 23-foot-thick walls, construction of the building began in 1358) and the Duomo (Milano Cathedral which took 500 years to build).

One of the greatest treats of the trip was a four-course dinner hosted by Dr. Nello Mangiafico, a former Postdoctoral Fellow of our Department, at a famous Sicilian restaurant in downtown Milan. Dr. Mangiafico is the President and General Manager of the European company Medivis, which develops and sells ophthalmic products. That next morning the group departed on a train from Milano Centrale for the Zürich Hauptbahnhof where they passed through the 36 mile Gotthard base tunnel (the world’s deepest and longest railway tunnel). From the Haupt-
bahnhof, the group walked down Bahnhofstrasse to the Fraumünster (Marc Chagall stained windows) and Grossmünster Church (construction began in 1100 A.D.), as well as visiting Augustinergasse and the “old city”. During the day, the students witnessed Swiss direct democracy in action and were present for a protest march against primate research and then had a real Swiss dinner at the Zeughauskeller in Zürich.

The next day in Lucerne, the group was dropped off at the town square Schwanenplatz, where they walked around the old town, enjoyed the covered bridges (e.g. Kapellbrücke, with interior paintings dating back to the 17th century). The students also viewed the mournful Löwendenkmal (Lion Monument), hewn in 1820-1821 for Swiss Guards that were killed in 1792 during the French Revolution. Some of the group also rented slow moving (safety first!) motor boats and drove around on beautiful Lake Lucerne.

The last day of the trip included a visit to the University of Zürich, where the OSU students were able to meet with students from the University of Zürich and have lunch together. Following lunch and discussions on college and social life in Europe, the students took the opportunity to explore the city of Zürich on their own. Everyone had a splendid time and it was indeed an enlightening experience for all!
Miss International Runner-Up

Graduate Student Juhi Chaturvedi competed in this past year’s Miss International pageant. As a representative of our proud Department, she earned the title of Miss India, as well as Miss International runner-up. The Mr. and Ms. International runner-ups both received $250 scholarships. Juhi is a member of Professor Junpeng Deng’s laboratory here in the Department of Biochemistry and Molecular Biology. It is wonderful to witness the multiple talents of our graduate students! And to add to this excitement, Juhi also recently found love and happiness with another member of Dr. Deng’s laboratory, Prabhat Pathak, and the two recently celebrated their wedding in India! Congratulations and may they both share a long life defined by love for many years to come!

Giving TOWARD the Department of Biochemistry & Molecular Biology

The Department of Biochemistry and Molecular Biology encourages all students to reach their full potential in every aspect of their education. The department recognizes the importance of alumni and values their contributions toward the success of our students. Financial Contributions make it possible for the department to provide a top-quality research seminar series, educational and research opportunities for students, and a variety of scholarships and scholar awards.

- BCMB Student Scholarship Fund
- Biochemistry Department Fund
- Roger E. Koepp Endowed Lectureship
- Kruse Scholarship
- Grace Knox Scholarship
- Webster Freshman Scholarship
- Dr. Gregory & Ruth Schultz Endowed Graduate Student Fellowship
- George R. and Hilda Waller Endowed Scholarship in Biochemistry
- Recognition by Women of Biochemistry and Molecular Biology
- Roger E. and Norma L. Koepp Endowed Scholarship Fund
- The Finn Wold Family Biochemistry Endowed Fund
- Endowed Scholarship in Honor of Linda C. Schultz
- V.G. Heller Scholarship for Research Experience
- Undergraduate and Graduate Research Fund

Contributions can be made online at biochemistry.okstate.edu, or checks payable to OSU Foundation and designate your desired area of support in the BCMB Department. For further information on giving toward or endowing funds for recognition of a specific individual, please contact the department.

Department of Biochemistry and Molecular Biology
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Spring and Summer 2018 Graduates
Department of Biochemistry and Molecular Biology

Undergraduates
- Benton Bishop
- Eston Blair
- Chloe Boettger
- Sadee Burchfield
- Elizabeth Caldwell
- Andrea Charlton
- Lacy Cox
- Hannah Davis
- Robert Devor
- Lane Driskill
- Cale Fussell
- Jordan Hagerman
- Geir Hareland
- Aubrey Hicks
- Mary Jensen
- Hunter Kelley
- Colleen La Force
- Melissa Martin
- Marjorie McCubbins
- Colin Mowery
- Taylor Neilson
- Stormy Perry
- Whitney Peterson
- John Rawson
- Elyssa Rhodes
- Libby Schultz
- Madison Slawson
- Megan Smith
- William Starr
- Kara Walker
- Mackenzie Wedman
- Caleb Wilson
- Alicia Aguilar
- Hunterlyn Alderson
- Joseph Charette
- Jade Cruz
- Michael Cubb
- Alexis Eichhom
- Stephanie Ferrante
- Thomas Guglielmo
- Jamie Lange
- Jonathan Liles
- Alexander Meador
- Kealyn Oliphant
- Taylor Reininger
- Chandler Smith
- Parker Wilson
- Katherine Woosley
Jordan Cowger

Department of Biochemistry and Molecular Biology undergraduate student Jordan Cowger earned the title of the Oklahoma State University CASNR Charles and Magda Browning Outstanding Freshman for 2018. Jordan serves the campus through many positions, including CASNR Ambassador, OSU Honors College Ambassador, OSU Student Foundation Secretary, and the National Women’s Fraternity Academic Chair Assistant. Jordan Cowger also takes part in aiding the community by volunteering with the Ronald McDonald House, Into the Streets, the Make-a-Wish Foundation and CowboyThon for Children’s Miracle Network. Along with maintaining high academic marks, Jordan was also named a National Women’s Fraternity Outstanding New Member, an Outstanding Freshman Dinner Attendee, a National Society of Collegiate Scholars Nominee and a Mortar Board Honors Society Top 20 Freshman. Jordan has gained large recognition across the campus community and we are all very proud to have her in our department!

casnr.okstate.edu

Relay for Life

Each year a group of Division of Agricultural Sciences and Natural Resources citizens participate in the Relay for Life event which raises funds to support cancer afflicted warriors, family, loved ones, and all those fighting cancer together. The event is also held in remembrance of those who have suffered and died from cancer, and allows many attendees and volunteers a moment to heal. The Department of Biochemistry and Molecular Biology was represented by John E. Gustafson who greatly enjoys participating every year as a member of the OSUAga Relay for Life team. The event included games and activities for kids and this last year, the OSUAga group dressed as clowns in order to entertain the younger participants of this extraordinary event. The donation goal of OSUAga was exceeded this year ($7,513), thanks to the hard work of the entire team!
Dr. Gregory Schultz

The Roger E. Koepppe Endowed Lecture, named after the Department of Biochemistry Molecular Biology’s most acclaimed Department Head, is an annual event which brings in gifted scientific speakers to our institution. The 2018 endowed lecturer was none other than Dr. Gregory Schultz. Dr. Schultz completed both his B.S. and Ph.D. degrees in the Department of Biochemistry and Molecular Biology and his postdoctoral training at Yale University. Today, Dr. Schultz is Professor of Obstetrics & Gynecology and Director of the Institute for Wound Research at the University of Florida. Dr. Schultz’s research focuses on the molecular regulation of wound healing, with an emphasis on anti-scarring therapies and the roles of bacterial biofilms and elevated proteases in chronic wounds. Dr. Schultz has authored over 350 scientific publications that have been cited more than 16,500 times, is PI or co-investigator on grants totaling over $35 million, is an inventor on 30 patents and a co-founder of two biotech companies. He was also recognized by TIME magazine as an Innovation Leader in 2006. He served as a member of the National Pressure Ulcer Advisory Panel from 2007-2010 and served as President of the Wound Healing Society from 1999-2001.

Dr. Schultz and his wife Ruth, graciously contributed a sum of $50,000 to the Department of Biochemistry and Molecular Biology to establish the Dr. Gregory and Ruth Schultz Endowed Graduate Student Fellowship Fund. This fund will be used to provide research resources and financial help to our graduate students.
Dr. Arlen Richardson

Dr. Arlan Richardson earned his Ph.D. from Oklahoma State University in chemistry / biochemistry and then went on to spend the next 40 plus years dedicated to research. His achievements include, but are not limited to:

- Professor of Geriatric Medicine
- Donald W. Reynolds Endowed Chair of Aging Research at OUHSC
- Senior VA Career Scientist at OKC VA Medical Center
- Mentored more than 50 individuals
- Authored more than 240 peer-reviewed scientific publications
- Honors:
  - Nathan Shock Award
  - Robert W. Kleemeier Award
  - Harman Research Award
  - Irving Wright Award
  - Lord Cohen Medal
- Served as/on:
  - President of the Gerontological Society of America
  - President of the American Aging Association
  - The Board of Scientific Counselors at the National Institute of Aging
  - Chair of the Gordon Conference on the Biology of Aging
  - Chair/Organizer of the Keystone Symposium on Metabolic Pathways of Longevity

Dr. Richardson’s major research passion is to understand the mechanism of aging. One of the many projects he is pursuing uses transgenic and conditional knockout mice to investigate the impact of superoxide dismutase on the process of aging. One of Professor Richardson’s recent articles that include the author Dr. Stephanie Matyi who obtained her Ph.D. in our Department as well, can be found here [https://onlinelibrary.wiley.com/doi/abs/10.1111/acel.12770](https://onlinelibrary.wiley.com/doi/abs/10.1111/acel.12770).

www.ouhsc.edu

Dr. Richardson is widely recognized throughout the world as a leading authority on aging and we are so proud he started his science career in our Department. Dr. Richardson has also made a number of donations to our Department that will support the research mission of our research students into the future and we are forever thankful for his incredible generosity.
Dr. Eldon Carl Nelson

Eldon Carl “E.C.” Nelson, of Stillwater, Oklahoma was born to Carl and Ruth Nelson in Dola, Ohio, December 13, 1935. He married Martha Joanne “Jo” Hemmerly on June 26, 1957. They had 2 daughters, Laura Nelson and Julie (Nelson) Kunzelmann. EC attended The Ohio State University, receiving a B.Sc. in Animal Science and Agricultural Education in 1957. After teaching Vo-Ag at Belle Center High School for one year, he returned to The Ohio State University to pursue graduate school in Animal Science earning a M.Sc. in 1960 and Ph.D. in 1963. He also served our country as a Lieutenant Commander in the U.S. Navy Reserve.

In 1963, Dr. Nelson accepted a teaching and research position in our formerly named Department of Biochemistry at Oklahoma State University. His research focused on the isolation and identification of metabolites of Vitamin A, synthetic analogs and related retinoids. During the time he served in our Department, Dr. Nelson accomplished everything a professor can in a career. He was a successful researcher who was awarded ~2 million dollars in research funding which included 6 renewals of a National Institutes of Health research grant on vitamin A. He was also on the nutrition study section for the National Institutes of Health and was an award-winning teacher and student advisor. In addition, Dr. Nelson was awarded the Elmo Baumann distinguished professorship which recognized the Outstanding Professor in DASNR and in 2010, he was awarded the DASNR Exemplary Faculty Award from the Ag Alumni Association. Furthermore, Dr. Nelson served as Professor and Head of the Department of Nutritional Sciences at Oklahoma State University from 1991 to 1993.

He was an indefatigable booster of the Department of Biochemistry and Molecular Biology, which resulted in his amazing success at recruiting under-
graduate majors, and his consistent good cheer and humor was wonderfully infectious. In fact, Dr. Nelson is widely credited with building our undergraduate program from ~15 majors to the ~ 250 majors we have today.

E.C. also sprinkled his interactions with students and colleagues as well as his course lectures with a large collection of jokes, which were always warmly received. He once stated, “I did not intend to be a professor of Biochemistry and Molecular Biology, I wanted to move back home to raise purebred Chester Whites”. Initially, he only intended to stay at OSU for a short time. However, he quickly came to think very highly of Oklahoma State University and CASNR and stated, “I had several job offers, but the kind of work I wanted to do, I could do better here, so I stayed.”

Dr. Nelson’s initial 41 years at OSU began in 1963 and lasted until 2004. Shortly after retiring the first time, the Department was lucky to have E.C. return to work as an undergraduate advisor until his official 2nd retirement in August of 2015. Dr. Nelson passed away on December 27, 2017. The entire Department misses his infectious smile and incredible wit and we will never forget him!