

The Oklahoma School of Science and Mathematics Foundation

presents



Celebrating the transformation of student lives through advanced academics & Awesome Alumni Outcomes

Benefiting the OSSM Faculty Endowment

Tuesday, November 1, 2022
At The Oklahoma School of Science and Mathematics

Honoring "Awesome" OSSM Alums

Katie Maurer, M.D., Ph.D.

Medical Oncology Fellow Dana-Farber Cancer Institute OSSM Class of 2007 (Enid H.S.)

Robyn Grinsteiner Miller, M.S.

Engineer, Co-Owner Sagemill Construction OSSM Class of 1996 (Mustang H.S.)

Lt. Col. A.G. Roesener, Ph.D.

Principal Operations Research Analyst MITRE
OSSM Class of 1994 (Hardesty H.S.)

Charles Te, M.D.

Electrophysiologist
Oklahoma Heart Hospital
OSSM Class of 2000 (Guymon H.S.)

Keynote Speaker Todd Edmonds, M.Eng.

Vice President in Equity Derivative Trading Goldman Sachs OSSM Class of 2012 (Inola H.S.)

Master of Ceremonies

Mr. Scott Meacham, President & CEO i2E, Inc. (Innovation to Enterprise)

Introductions and Remarks by

Mrs. Katie Altshuler, Chair, OSSM Foundation Mr. Dan Little, Founding Chair, OSSM Dr. Edna McDuffie Manning, Interim President, OSSM

Welcome & Introductions

Katie Altshuler Chair, OSSM Foundation

Invocation

Jerry Burger Secretary, OSSM Foundation

Dinner

"Awesome" Alumni Highlights

Scott Meacham
President & CEO, i2E, Inc. (Innovation to Enterprise)
Master of Ceremonies

Keynote Address

Todd Edmonds, M.Eng Vice President Equity Derivative Trading, Goldman Sachs "Searching for the OSSM Basement and the Path to Goldman Sachs"

Gift Presentations

Dan Little, Esq. Founding Chairman, OSSM

Building the Future

Edna McDuffie Manning, Ed.D. Founding President Emerita & Interim President, OSSM

Closing

Mr. Meacham



Katie Maurer, M.D., Ph.D. Medical Oncology Fellow, Dana-Farber Cancer Institute OSSM Class of 2007 (Enid H.S.)

B.S. Microbiology and Immunology, University of Rochester, 2010 Ph.D. Immunology, New York University School of Medicine, 2015 M.D. Medicine, New York University School of Medicine, 2017

Born and raised in Enid, Oklahoma, Katie enjoyed science and math from an early age. At OSSM, she first had her opportunity to explore scientific

research in a microbiology laboratory at the OU Health Sciences Center under mentorship of Dr. H. Anne Pereira. Katie did her undergraduate work at the University of Rochester in Rochester, New York, where she earned a Bachelor of Science with honors in Microbiology and Immunology, with distinction in research. For her undergraduate thesis, she studied immunodeficiency syndromes with Dr. Deborah Fowell.

In her M.D./Ph.D. program at NYU School of Medicine, her doctoral thesis work under mentorship of Dr. Ken Cadwell centered around understanding the host-pathogen interface, elucidating the mechanism by which autophagy-deficiency leads to greater susceptibility to *Staphylococcus aureus* infection in a pre-clinical model. She completed her Ph.D. in Immunology in 2015 and went on to finish her medical studies, earning her M.D. in 2017. She did her residency training in internal medicine at the Massachusetts General Hospital in Boston where she also performed a clinical research study evaluating the role of antibiotic prophylaxis during bone marrow transplantation. Upon completion of her residency in 2019, she began fellowship in medical oncology and hematology at the Dana-Farber Cancer Institute and the Massachusetts General Hospital, where she is currently continuing her training as a medical oncologist and physician scientist.

Katie resides in Cambridge, Massachusetts, with her husband, Dr. Daniel Okin, who is also a physician scientist at the Massachusetts General Hospital.

Robyn Grinsteiner-Miller, M.S.

Engineer, Co-Owner, Sagemill Construction OSSM Class of 1996 (Mustang H.S.)

B.S. Industrial Engineering & Management, Oklahoma State University, 2001

M.S. Aerospace Administration & Logistics, Southeastern Oklahoma State University, 2014

Robyn worked for several different manufacturing companies after graduating from OSU including Ethicon, Williams Communications, Ramsey Winch, Cardinal Health, and Tinker AFB. While at Tinker AFB, Robyn managed \$40 million in engineering capital investments and expenditures. In 2010, Robyn and her husband, Rance, started Sagemill

Construction, a commercial construction company, which has grown as an Oklahoma small business to employ seven people and earn \$3 million in annual gross income. Sagemill Construction's recent projects have involved Homeland Acquisition Corp, Norman Regional Hospital, Schlotzsky's, ClimateMaster, Gordon Cooper Technology Center, Dunkin' Donuts, Kickapoo Casinos, and more.

Robyn and Rance will be married 20 years next year and have two children, Lauren and Rylan. They make their home in Meeker, OK.



Lt. Col. (Ret.) August G. "A.G." Roesener, Ph.D. Principal Operations Research Analyst, MITRE OSSM Class of 1994 (Hardesty H.S.)

B.S. Operations Research, United States Air Force Academy, 1998 M.S. Industrial & Systems Engineering, University of Florida, 2002 M.S. Operational Art & Science, Air University, 2011 Ph.D. Operations Research & Industrial Engineering, University of Texas, 2006

August G. "A.G." Roesener grew up on a farm/ranch in the small town of Hardesty in the Oklahoma Panhandle (population 212). Unfortunately, he missed the OSSM faculty member who came to visit Hardesty High School to extol the benefits of OSSM during his sophomore year. Luckily, he happened to read about OSSM in (of all places) the Oklahoma Farm Journal while eating breakfast one morning. He applied to OSSM that very week (the application deadline was approaching) and was accepted into the third class at OSSM. While the teachers at Hardesty were excellent, A.G. never really felt academically challenged. This was not the case at OSSM; his OSSM professors challenged the students to expand their knowledge and, probably more importantly, to *learn how to learn* and to appreciate learning. This lifelong skill, A.G. says, propels OSSM graduates to higher levels than they would undoubtedly have achieved otherwise.

A.G. received appointments to both the United States Air Force Academy (USAFA) and United States Naval Academy and chose to attend USAFA. In 1998, he graduated with a B.S. degree in Operations Research and entered the United States Air Force (USAF) as a second lieutenant and attended Joint Specialized Undergraduate Pilot Training (JSUPT) at Vance Air Force Base in Enid, OK.

After experiencing repeated airsickness during JSUPT, A.G. was reassigned in 1999 as an Operations Research/Scientific Analyst (ORSA). A.G. had many varying and enjoyable assignments as an ORSA in the USAF. As a few examples, he:

- designed experiments to guide operation test and evaluation of aviation electronic warfare systems
- developed algorithms to more tightly pack military equipment into cargo airlift aircraft
- optimized locations of warning radars across the United States for homeland defense
- supervised relief efforts for and delivery of supplies to American citizens during many natural disasters

A.G. has earned a B.S. in Operations Research, M.S. in Industrial and Systems Engineering, Ph.D. in Operations Research and Industrial Engineering, and M.A. in Military History. As payback for the USAF sponsoring his Ph.D., A.G. taught junior USAF officers earning their M.S. or Ph.D. in Operations Research at the Air Force Institute of Technology (AFIT), and he has continued to teach as an adjunct professor or instructor at four other universities (in both face-to-face and online only formats). He tries to impart the study habits and skills he learned at OSSM to his students.

A.G. married Marsha Glenn in 2003, and they now have two beautiful children: Austin, 10, and Mia, 8. After A.G. retired from the USAF in 2018, the family settled in Huntsville, Alabama. A.G. now works for a not-for-profit Federally Funded Research and Development Center (FFRDC), which is a "think-tank" tasked with "solving problems to make a safer world."

A.G. never claims to be the smartest person in the room (even when he is by himself). He credits his successful career to the work ethic he learned on the farm and the study skills he learned at OSSM.

Charles C. Te, M.D., FACC, FHRS Electrophysiologist, Oklahoma Heart Hospital OSSM Class of 2000 (Guymon H.S.)

B.S. Biomedical Engineering, Washington University-St. Louis, 2003 M.D. Medicine, University of Oklahoma College of Medicine, 2007 Residency—Internal Medicine, University of Oklahoma Health Sciences Center, 2007-2010 Fellowship, Cardiology/Electrophysiology, University of Oklahoma Health Sciences Center, 2010-2014



Dr. Te is Board Certified in Internal Medicine, Cardiology, Clinical Cardiac Electrophysiology, and Nuclear Cardiology. He is a member of the American College of Cardiology and the Heart Rhythm Society.

Born in Bronx, NY, Dr. Te is of Filipino descent and grew up in Guymon. He is happily married to Dr. Leslie Te and has two sons and one daughter. He enjoys basketball, football, golf, crossfit, gadgets, and food.

"OSSM is a humbling and challenging experience. It helped expand my world view, achieve my academic goals, and develop lasting friendships."

~ Dr. Charles Te



Todd Edmonds, M.Eng.

Vice President, Equity Derivative Trading, Goldman Sachs OSSM Class of 2012 (Inola H.S.)

Keynote Speaker

M.Eng. Financial Engineering, Cornell University, 2017 B.S. Applied Physics, Oklahoma State University, 2016 B.S. Mathematics, Oklahoma State University, 2016

Todd Edmonds graduated from Oklahoma State University in 2016 receiving degrees in Mathematics and Physics before attending Cornell University where he received a Master's in Financial Engineering.

Currently, Todd is a Vice President in Equity Derivative Trading at Goldman Sachs and a guest lecturer at Cornell, teaching classes on complex derivatives and financial structures.

Todd is married to fellow Oklahoma State alumna Victoria Som de Cerff Edmonds, a technology leader at ExxonMobil, published Nature Communications author, and multiple patent holder.

Todd is an active member of his community, mentoring current and former athletes focused on reaching various goals throughout their careers. He also enjoys Formula 1 engineering podcasts, playing campaign board games, and trying new restaurants in New York City with Victoria.

OSSM FAST FACTS

- Median Class Size: 11 Student to Faculty Ratio: 4:1
 - Number of Graduates: 1,900+
 - Percentage of Professors with Doctoral Degrees: 90%
 - Lab sizes are capped at 16
- Students from all 77 Oklahoma counties have attended OSSM's Residential Program
- OSSM students who are residents of Oklahoma pay no tuition, fees, room, board
 - OSSM has more than 65 different course offerings.
- More than 60 percent of OSSM students participate in independent research, receiving hands-on experience in their field of interest
 - Although OSSM does not offer AP courses, 74 percent of the students who took AP exams received scores of 3 or higher
 - 100 percent of OSSM graduates go on to colleges and universities. For the past five years, the average college scholarship offer was \$214,000 per student
- OSSM has sent more National Merit Scholars to the University of Oklahoma than any other high school in the country

Oklahoma School of Science and Mathematics

OSSM challenges students far beyond the traditional high school model. Everything at OSSM supports students' academics—from the school's residential model, **rigorous college-level curriculum**, and largely doctoral-level teaching faculty to required evening study halls staffed with faculty and limits on cell phones and personal internet. Students leap forward in their academic progress, and many OSSM graduates take numerous college credits to their chosen institutions of higher learning.

Math Pre-Calculus I, II & III; Calculus I & II; Multivariate Calculus; Differential Equations;

Number Theory; Probability & Statistics; Linear Algebra; Abstract Algebra; Geometries; Topology; Real Analysis; Complex Analysis; Advanced Problem Solving,

Foundations of Mathematics; Special Topics in Math

Biology General Biology; General Zoology; Vertebrate/Invertebrate Zoology; Embryology;

Anatomy & Physiology; Endocrinology; Histology; Genetics; Intro to Neuroscience; Plant & Soil Science; Biochemistry; Botany; Microbiology; Ecology; Molecular &

Cellular Biology

Chemistry I & II; Organic Chemistry I & II; Biochemistry; Chemical

Thermodynamics; Physical Chemistry, Chemistry Olympiad Prep/Directed Study

Engineering Engineering Seminar, Robotics Engineering, Electronic Circuits, TEAM+S

Competition (extracurricular)

Physics General Physics; Mechanics; Electricity & Magnetism; Thermal Physics Waves &

Optics; Intro. to Modern Physics; Modern Physics II; Astronomy; Topics in

Theoretical Physics

<u>Computer</u> Intro to Computer Science; Object-Oriented Programming with Java; Data Structures

Science I & II; Operating Systems; Networking; Computer Architecture & Assembly

Programming; Intro. to Data Science & Data Science Seminar, Special Topics

<u>Humanities</u> American Literature; World Literature; Principles of English Composition; American

History; Western Civilization I & II; East Asian History; Arab Civilization; Special

Topics; Foreign Languages; Fine Arts

Fine Arts & Physical Education

Foreign Languages (German, French, Spanish, Japanese, Chinese & Latin)

Mentorships In any given year, approximately 60% of OSSM seniors are engaged in mentorships

with community professionals in their areas of special interest, such as bioscience

research, engineering, and more.



- OSSM is ranked in the top 1% of public high schools in the U.S. and #1 in Oklahoma for the past four years (Niche.com).
- Eighty-five percent of OSSM alumni remain in scientific, technology, engineering, and mathematics fields for their careers!
- The fields of study and careers most chosen by OSSM graduates are **engineering** (aerospace, biomedical, chemical, civil, computer, electrical, mechanical, petroleum); **medicine**, **medical** research, and other health sciences; and other fields including computer science, technology, education, scientific research, business, and law.
- OSSM alums are employed in many of Oklahoma's finest corporations, hospitals and technical firms such as AT&T, Artificial Lift Company, Baptist INTEGRIS Hospital, Benham Companies, Boeing, Chesapeake Energy, C. H. Guernsey, Cardinal Engineering, Chevron Phillips, Devon Energy, Ditch Witch, Dobson Communications, FAA, Hall Estill, LexisNexis, Mercy Hospital, MidFirst Bank, OG&E, Oklahoma Cardiovascular Associates, Oklahoma Center for Neuroscience, Oklahoma Heart Hospital, Oklahoma Medical Research Foundation, Oklahoma State Bureau of Investigation, Paycom, SAIC, St. Anthony Hospital, St. John Hospital, Standard Aero, Stillwater Medical Center, Tinker Air Force Base, University of Oklahoma and OU College of Medicine, University of Tulsa, World Telemetry, and many more.
- A full fourth of Tulsa's most successful start-up companies highlighted by the *Tulsa World* in 2012 were begun by OSSM alumni.
- OSSM students are actively recruited by the finest universities, colleges and technical institutes from across the states; however, more than half choose to pursue their higher education in Oklahoma.
- With 30 classes graduated and some 60% of OSSM alumni living/working in Oklahoma, OSSM and its alumni/alumnae are already stimulating some \$40 million each year in economic activity in Oklahoma and this impact is increasing with every graduating class!

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- ONEOK Foundation Helping replace critical scientific instrument
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- Presbyterian Health Foundation Helping replace critical scientific instrument, providing faculty support, and more
- Sarkeys Foundation Helping train Oklahoma middle school math teachers through OSSM's Summer Math Teachers' Institute and helping provide for world class faculty and research excellence at OSSM for years to come
- Warren and Jeri Thomas Helping replace critical scientific instrument
- Troelstra Family Student Scholarship Endowment
- Bruzzy Westheimer Helping replace critical scientific instrument
- Jean M. Warren Helping OSSM retain superb faculty for years to come through Estate Planning
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