



SOCIETY OF TRIBOLOGISTS  
AND LUBRICATION ENGINEERS

*Dedicated to advancing the science of tribology and best practices in lubrication engineering.*

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**World-Class Speakers Take Center Stage at STLE Tribology Frontiers Conference**

*Researchers share new findings on how tribology can solve  
today's technical, environmental and societal issues*

Park Ridge, Illinois (September 17, 2018) – The Society of Tribologists and Lubrication Engineers ([STLE](http://www.stle.org)) – the technical society serving individuals, companies and organizations that comprise the tribology and lubrication engineering business sector – is pleased to announce its plenary speaker lineup for the [STLE Tribology Frontiers Conference](#) to be held October 28-31, 2018 at The Drake Hotel in Chicago, Illinois.

STLE's four-day conference, co-sponsored by the Tribology Division of the American Society of Mechanical Engineers ([ASME](http://www.asme.org)), will feature more than 200 presentations exploring how tribology – the study of moving surfaces that interact with one another – can solve today's technical, environmental and societal concerns; plenary talks and technical sessions from leading tribology researchers and institutions from around the globe; and opportunities for networking and discussions with principal investigators.

"Tribology is enabling a number of game-changing advancements across a wide variety of industries," said Ed Salek, STLE's executive director. "The STLE Tribology Frontiers Conference is an ideal way for the science community to learn how emerging tribological research can be applied to modern-day issues for a better tomorrow."

During the conference, world-class visionaries will address key areas at the forefront of tribological science, including biomedicine, additive manufacturing materials and technologies, and advancements inspired by nature. Conference [plenary sessions](#) and speakers are highlighted below:

**"Tribology in Biomedicine"**

Biomedicine is growing at a rapid pace, but there are often numerous tribological complexities associated with biological function. Thanks to new research, scientists are now able to address the role of tribological action within living tissues. W. Gregory Sawyer, Ph.D., professor for the Department of Mechanical and Aerospace Engineering, University of Florida, will share new findings on the friction of living corneal epithelial cells, which cover and protect the front of the eye. The presentation will provide insight into the composition and workings of these cells, enabling researchers to create new innovations (improved contact lenses) and solve practical problems (improved management of eye injuries) in the future.

**"Additive Manufacturing Materials and Technologies"**

Soldiers in remote locations often experience long wait times for critical replacement parts, but new tribological research is enabling a way to significantly cut production time using recyclable materials

commonly found at or near bases and battlegrounds. Nicole Zander, Ph.D., chemist for the U.S. Army Research Laboratory (ARL), will discuss how polymers, metals and paper materials can be used as starting materials for additive manufacturing (also known as 3-D printing), which could reduce the Army's dependence on outside suppliers, enhance operational readiness and decrease transportation costs.

#### **“Snake Skin Tribology for Mechanisms of Friction and Wear Reduction Systems”**

Snakes are almost in continuous contact with the surface, yet they are one of the most successful vertebrates to manage friction in various ecological niches. In this presentation, [Stanislav Gorb, Ph.D.](#), professor of zoology, [University of Kiel, Germany](#), will highlight recent research on the frictional properties of snake skin and how these findings can be used to improve the design and performance of textured surfaces for human use.

The conference will also feature a special “[Meet the Principal Investigator](#)” poster session. During the session, tribology thought leaders will have the opportunity to workshop their ideas and get feedback from the technical community on various topics, such as a recent advancement or development, an unexpected finding, a new passion project, new opportunities for tribology research, and general challenges to the technical community.

To learn more about the 2018 STLE Tribology Frontiers Conference, visit <https://www.stle.org/TribologyFrontiers>. To view STLE's complete conference schedule, click [here](#).

#### **About the Society of Tribologists and Lubrication Engineers (STLE)**

The [Society of Tribologists & Lubrication Engineers](#) (STLE) is the premier technical society serving the needs of over 13,000 individuals and 250 companies and organizations that comprise the tribology and lubrication engineering business sector. STLE members are employed by the world's leading corporations, academic institutions and by governmental agencies dealing with science and technology. STLE supports these distinguished technical experts with a variety of professional education and certification programs. For more information, visit [www.stle.org](http://www.stle.org).

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