

James C. Eisenach, MD, to Present 2021 John W. Severinghaus Lecture on Translational Science: ‘Gadgeteering for Pain Relief’

Roy A. Winkler

Managing Editor, ASA Publications

It will be a memorable event this year in San Diego – the first Severinghaus Lecture after the passing of its namesake on June 2, 2021. In his talk, titled “Gadgeteering for Pain Relief,” James C. Eisenach, MD, will honor the life and legacy of a pioneer whose work continues to reverberate through anesthesiology and in every facet of the biomedical sciences. One of the specialty’s most accomplished researchers himself, Dr. Eisenach will describe his own work in the understanding of pain, offer an intimate exploration of Dr. Severinghaus’ contributions, and draw parallels between his own research paths and those of Dr. Severinghaus.

Dr. Eisenach is currently the FM James III Professor of Anesthesiology at Wake Forest School of Medicine, and President and CEO of the Foundation for Anesthesia Education and Research. He was Editor-in-Chief of *Anesthesiology* from 2007-2016 and is the author of 22 book chapters and more than 300 peer-reviewed publications. He has been funded by the NIH since 1985, with more than \$40 million in funding so far, including currently \$8 million for research on mechanisms to optimize recovery from surgery.

In his lecture, Dr. Eisenach will detail the three sequential phases of his



James C. Eisenach, MD



Dr. Severinghaus at ANESTHESIOLOGY® 2016 in Chicago, with Daniel I. Sessler, MD, who presented the Severinghaus Lecture that year.

research: α 2-adrenergic agonists for analgesia, the pharmacology of spinal analgesia, and attempts to better define and speed recovery from pain after surgery. Along the way, he will emphasize how his work – accomplished with the help of many role models, sponsors, mentors, colleagues, and mentees – has led to a few practical applications in the treatment of pain, spurred pharmaceutical development of novel classes of analgesics, improved our understanding of the difficulty in translating pain research from the laboratory to the clinic, and suggested future interventions to reduce pain and suffering after physical injury.

The concept of “gadgeteering” will be a key focus of his lecture. Dr. Eisenach contends that gadgeteering is critical to every physician-scientist and to science in general. All scientists, he said, invent tools, methods, and concepts in their work – constantly tinkering with

them to better address current and future questions.

“This sort of tinkering is absolutely essential to discovery in all scientific disciplines,” said Dr. Eisenach. “But more than that, it is one of the central requirements for a prolonged career in research, along with honesty, curiosity, discipline, and joy.”

Gadgeteering is the term Dr. Severinghaus applied to his contributions to science when he himself presented the first John W. Severinghaus Lecture at the 2008 ASA annual meeting. As Dr. Severinghaus said in a fascinating interview with Dr. Tom Hornbein (available through the Wood Library-Museum of Anesthesiology), he aspired to be a great physiologist, but the tools he needed weren’t available – so he invented and perfected them. Some of those tools, of course, were game changers, like the electrodes to measure blood gases, which resulted in his first blood gas machine, one of which resides in the Smithsonian.

“The term gadgeteering conveys to me whimsical playfulness and tinkering, and that’s precisely how Dr. Severinghaus described his experiences and his journey in creating his tremendous contributions to the science of our specialty,” said Dr. Eisenach.

John Severinghaus remained active until the very end of his life. As told by colleagues in his obituary from the August *ASA Monitor*, he was still performing research at the Pace Altitude Lab on White Mountain in 2013, when he was 91. He attended his last ASA annual meeting in 2016 at age 94. In 2021, with his passing still fresh in our minds, James Eisenach will honor a luminary who devoted his life to science and show, through his own research, that the journey of discovery is truly never-ending. ■

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