

Pieter Dorrestein Recognized by Pharmacology Society

January 12, 2015 | Heather Buschman, PhD

Pieter Dorrestein, PhD, has been selected to receive the 2015 John Jacob Abel Award in Pharmacology by the American Society for Pharmacology and Experimental Therapeutics (ASPET). Dorrestein is a professor of pharmacology, chemistry and biochemistry in the Skaggs School of Pharmacy and Pharmaceutical Sciences at the University of California, San Diego. The John Jacob Abel Award, ASPET's oldest and most prestigious award, is given to young investigators to stimulate fundamental research in pharmacology and experimental therapeutics. Past recipients include several Nobel laureates. As part of the award, Dorrestein will deliver a special ASPET lecture at the annual Experimental Biology meeting in March.



Pieter Dorrestein, PhD.

“This recognition is a great credit to Pieter, the Skaggs School of Pharmacy and Pharmaceutical Sciences and UC San Diego,” said Palmer Taylor, PhD, Sandra & Monroe Trout Endowed Chair in Pharmacology and dean emeritus of the Skaggs School of Pharmacy. “John Jacob Abel was a consummate pharmacologist and biochemist in the early 20th century — a time when constituent isolation and the biological assay reigned supreme. He would have been amazed to see how mass spectrometry and analytical technologies, as developed and applied by Pieter and his many collaborators, now dominate contemporary scientific endeavors.”

Dorrestein serves as director of the newly launched Collaborative Mass Spectrometry Innovation Center and co-director of the Institute for Metabolomic Medicine at UC San Diego. Dorrestein's

research team applies high resolution and laser imaging mass spectrometry expertise to help answer a broad range of medical and ecological research questions.

In one project, Dorrestein and colleagues are building 3D molecular maps of people and their microbial communities. In another, the team is developing a crowd-sourced infrastructure to allow researchers all over the world to help annotate all of the molecules they are detecting with mass spectrometry and to connect these molecules back to their genetic signatures. With these tools, researchers will be able to answer questions about drug metabolism and interactions with microbes, in both healthy and patient populations, and drive early drug discovery and development.

Dorrestein credits his success to his many fruitful collaborations with colleagues all across the UC San Diego campus, including the Skaggs School of Pharmacy and Pharmaceutical Sciences, School of Medicine, Scripps Institution of Oceanography, Jacobs School of Engineering and the San Diego Supercomputer Center.

“There’s also a great historical connection here — John Jacob Abel took natural substances and used them for therapeutic purposes,” Dorrestein said. “Now, 100 years later, this is what we continue to do as we work to connect genetic information to real-life molecular events, with the potential to influence the development of new therapeutics.”

John Jacob Abel founded ASPET and *The Journal of Pharmacology & Experimental Therapeutics* in 1908. He also founded the American Society for Biological Chemistry and co-founded the *Journal of Biological Chemistry*. Abel is known for many scientific advances, including the isolation and crystallization of insulin, the identification of epinephrine as a hormone and the understanding of the action of pituitary hormones and various toxins, prior to their complete structural identification.