



Chemical Reactivity, Metabolism and Opportunities for Therapeutic Development in Oxygen Radicals

February 2 - 7, 2020

Chairs

Yvonne MW. Janssen-Heininger and Manisha Patel

Vice Chairs

Christian Schoneich and Anna-Liisa Levonen

Ventura Beach Marriott

2055 Harbor Boulevard
Ventura, CA, United States

Conference Description

Since its inception as a field, the oxygen radical research pendulum has swung from a focus on the "damaging" effects by high levels to "physiological" effects by low levels of oxidants, causing a shift away from the term "oxidative stress" towards "redox biology". New biochemical insights, along with recent clinical successes of several new redox therapeutics in human diseases, including FDA approval of dimethyl fumarate, have led to a resurgence of interest in the role of oxidants in cellular homeostasis, disease pathology and the development of drugs to combat chronic diseases or to promote a healthy life span. Our objectives for this conference are to highlight the conceptual advances in our understanding of how oxidative processes regulate cell biology, life span and disease pathogenesis. We also aim to highlight the development of next generation methodological tools and reagents to probe oxidative events, and will have a session devoted to the development of redox therapeutics. The role of mitochondria, endoplasmic reticulum and lysosomes in control of proteostasis, and generation of metabolites have emerged as an exciting forefront of the redox biology field. A focus on these organelles and their control on redox homeostasis, metabolism, disease pathogenesis and aging are proposed for the 2020 conference. New to the conference is a "poster preview" session for poster presenters. We intend to provide an inclusive environment that encourages the participation of diverse and early stage scientists, and will have a fun social schedule to promote this.

We hope that you will join us in Ventura! Manisha and Yvonne