

**Report of the NOX Family NADPH OXIDASES GORDON RESEARCH SEMINAR (GRS):
BIOLOGICAL ROLES OF NADPH OXIDASES: INSIGHTS INTO FUNDAMENTAL MECHANISMS
AND THERAPEUTIC POTENTIAL**

Dates and site: Les Diablerets, Switzerland, May 26th-27th 2018

Chairs: David E. Heppner (Harvard Medical School, Postdoctoral Research Associate, Dana-Farber Cancer Institute, Boston, USA) and Aikaterini Anagnostopoulou (University of Glasgow, Research Associate, BHF Cardiovascular Research Center, Glasgow, Scotland, UK)

The NOX Family NADPH Oxidases GRS 2018 was a two-day seminar (Saturday and Sunday) and consisted of three sessions of Oral presentations and two poster sessions. 19 people attended the meeting where 13 young investigators presented their work in either the oral (10 talks) and/or poster sessions (13 poster). The attendees came from Brazil, USA and Europe (France, Italy, Netherlands, Slovakia, Spain, Switzerland and UK).

The Oral presentation program consisted of three sessions: Session I: Structure and Regulation of NADPH Oxidase Enzymes; Session II: Biological Roles of NADPH Oxidases and Redox Signaling: From the Single Cell to the Complex Organism and Session III: NADPH Oxidases in Health and Disease. Each presentation consisted of 15-20 mins followed by 5 mins of discussion. The two poster sessions were one and a half hours. During the oral and poster sessions, there were ample opportunities for discussions and interactions between the young investigators and the invited senior scientists. The oral/poster sessions consisted of multidisciplinary aspects in the study of NOX enzymes from perspectives of molecular-level structure and function to relevance in health and disease including cardiovascular, cancer, pulmonary, and inflammatory diseases.

The GRS also featured a one hour mentorship/career panel of four invited speakers who are experts in the NOX/DUOX field or related research themes. The four speakers who were part of the Mentorship panel were Ulla Knaus, Conway Institute, University College Dublin, Ireland; Albert van der Vliet, University of Vermont, USA; Patrick Pagano, University of Pittsburgh, USA and Nancy Hynes, Friedrich Miescher Institute for Biomedical Research, Switzerland. The mentorship panel consisted of questions/discussions in career development and personal experiences on career trajectories from a graduate student to a successful scientist. GRS participants were able to interact with the mentors during the GRS and the "NOX Family NADPH Oxidases" GRC meeting which was held in Les Diablerets on May 27th until June 1st 2018 right after the GRS.

Based on GRS meeting evaluations filled in by the GRS participants, the meeting was successful in terms of NOX science and scientific and social interactions. Based on the evaluations, the young investigators found the program and oral/poster presentations interesting and insightful and they liked the diversity of different topics in the NADPH oxidases field. It gave them a great opportunity to interact with other participants and senior scientists to talk about their research projects and technical issues. Furthermore, the young investigators found the career panel valuable and enlightening.

The GRS chairs are very grateful to SFRR-E for the generous contribution of two 400 Euro travel awards for young investigators participating in the NOX Family NADPH Oxidases GRS oral program. The two SFRR-E travel awards were awarded to two young investigators with the highest-rank abstracts including Dr. Livia L. Camargo (University of Glasgow, BHF Cardiovascular Research Center, Glasgow, Scotland, UK, Postdoctoral Researcher) and Carmen Veith (Maastricht University, Department of Pharmacology and Toxicology, Maastricht, Netherlands, PhD student). Mrs. Veith gave an oral presentation in the Session II entitled "Profibrotic Signaling by TGF- β NADPH Oxidase 4-Dependent Activation of the Tyrosine Kinase Fyn". Dr. Camargo gave an oral presentation in the Session III entitled "Interplay Between Nox-Regulated Oxidative Stress and ER Stress Response in Experimental Hypertension". The SFRR-E logo was placed in the NOX GRS program web-site, meeting program and contribution was acknowledged during the GRS meeting and it will be included in the GRC President's annual report.

Their pictures are enclosed to this report.



Carmen Veith



Livia L. Camargo

Sincerely yours,

A handwritten signature in black ink that reads "David E. Heppner".

David E. Heppner, Ph.D.
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A handwritten signature in black ink that reads "Anagnostopoulou".

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