Session Title: The Mevalonate Pathway: A Fundamental Player in Human Disease

Session Description: The mevalonate pathway is a basic biochemical pathway that underlies many diverse cellular processes important in health and disease. It is also known as the cholesterol biosynthesis pathway and controls signaling G-proteins relevant in cell function and survival. The statins which target this pathway are primary therapies in cardiovascular diseases and they have had a significant public health impact on increasing survival. However, emerging data suggest that this pathway and statins might also play a role in other diseases beyond the cardiovascular system creating opportunities for new ideas and novel therapies.

Learning Objectives:

- Develop a deeper appreciation for the mevalonate pathway and its diverse roles in cellular physiology.
- Learn how mevalonate metabolism modulates cell fate biology.
- Understand the role mevalonate signaling plays in cancer biology and potential treatments.
- Review how targeting the mevalonate pathway can affect lipid pathways relevant to asthma pathogenesis.

Co-Chairs:
Amir Zeki, University of California, Davis
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Presentations:

* Mevalonate Pathway Regulation of Cell Fate: Autophagy, Apoptosis, and ER Stress
  Saeid Ghavami, University of Manitoba, Winnipeg, Canada

* Mevalonate Cascade and Cancer Therapy: The Statins and Beyond
  Gerhard Fritz, Heinrich-Heine-Universität, Düsseldorf, Germany

* Targeting the Mevalonate Pathway and Oxidized Phosphatidylcholines in Asthma: A New Role for Lipids in Airway Disease
  Andrew Halayko, University of Manitoba, Winnipeg, Canada