Piruthivi Sukumar, J Diabetes Metab 2015, 6:10
http://dx.doi.org/10.4172/2155-6156.C1.033

OMICS International
conferenceseries.com

6th Global Diabetes
Summit and Medicare Expo

November 02-04, 2015 Dubai, UAE

Operation ROS: From stillbirth to stroke via diabetes

Piruthivi Sukumar
IIT Guwahati, Assam

For decades it is known that reactive oxygen species (ROS) molecules are indispensible to the immune cells to combat the microorganisms that invade different systems of over body. However, over the last 20 years it is becoming increasingly evident that those ROS species chemicals can also induce adverse affects on most if not all of the mammalian cells, tissues and organs. Especially, in people suffering from diabetes, excessive ROS production could be arguably, the most significant factor for development of micro and macrovascular complications. For example, excessive ROS could lead to stillbirth in gestational diabetic women, inflammatory disorders in type I diabetic children, atherosclerosis in insulin resistant middle aged person and retinopathy in old chronic diabetic patients. However, early clinical trials targeting ROS in wholesome manner have failed to show any positive results. Hence a more thorough understanding and specific targeting of ROS molecules are required in addition to expanding the knowledge on the interplay between ROS and various other signaling systems of the cells. Our laboratory concentrates on how calcium signaling, a ubiquitous second messenger system, contributes to ROS mediated complications in diabetes. The lecture and the following discussion will introduce the students and young professionals into basics of ROS and diabetes and go on with discussing the recent advances in this field of targeting ROS for diabetes induced complications. Also it will induce the audiences' thoughts on how to exploit their skills and expertise to answer numerous unanswered questions in this important and need of the hour field of research.

p.sukumar@iitg.ernet.in

Notes: