

## AASCP Zoom Lecture May 26<sup>th</sup>, 7:30pm (EST) Abdulkader Rahmo, Ph.D., "Small Mobile Stem cells: Potential for multi-targeted therapy of emphysema in COPD"

## **Short Bio:**

Dr. Abdulkader Rahmo, PhD finished his degree in Biochemistry at the Swiss Federal Institute of Technology in Zurich 1988, completed his PhD at the University of Southern California in Los Angeles 1994 did his postdoc at a major clinical laboratory in Munich Germany. In 1995 he established and supervised a large private clinical laboratory specialized in molecular and genetic diagnostics in Damascus. In 2001 he became a member of the faculty of medicine at the University Damascus and established the laboratory for genetic research. Rahmo co-founded the National Commission for Biotechnology in 2004 where he became the head of the medical Biotechnology section. He taught Molecular Biology and Molecular Epidemiology at different universities. He moved to the USA in 2013 and was a visiting scientist at Western University of Health Sciences. He co-founded SMSbiotech, an early stage biotech company located in San Diego County in November 2015, based on his stem cell research. The current research and development centers on the major field of regenerative medicine, targeting wound healing in diabetic ulcers and degenerative lung diseases (COPD, IPF).

## **Topic of Lecture:**

COPD is a major worldwide chronic respiratory disease. It is the 3rd leading cause of death from chronic disease worldwide. It has a high impact on quality

of life, morbidity, and mortality. Currently, there is no cure for this disease and no therapy to replace or regenerate destroyed alveoli. Small Mobile Stem (SMS) cells, with their small size, mobility, resilience, and angiogenic effect show flexibility in route of clinical administration (either through inhalation suspended in an aerosolized mist, or by IV infusion). They also have strong and meaningful interactions with multiple types of cells key to tissue regeneration and repair, offering the potential of an induced, multitargeted, orchestrated, regenerative event that addresses the main elements of emphysema (alveolar destruction with epithelial cell apoptosis, interstitial alveolar matrix damage, and loss of lung micro-vessels). As such SMS cells could overcome many intrinsic hurdles and limitations preventing the successful therapeutic application of adult stem cells (such as mesenchymal stem cells).





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