BIOGRAPHY

Dr. Loay K. Awad was born in the city of Jerusalem. He received his B. Sc. degree in chemistry and chemical technology from Al-Quds University in February1999; he stood the first in the B. Sc. for the faculty of science, and then he became teacher assistant in Al-Quds university until October 2000, then he completed his DEA fromLausanne university and Institute of Technology of Palaiseau, France in 2001, then he completed his doctoral studies at Swiss Federal Institute of Technology in 2005.

After obtaining his doctoral degree, he became a research fellow at the Swiss Federal Institute of Technology for Medical Research. During his tenure (2005-2007) at Swiss Federal Institute of Technology his work focused on design and preparation of anti-cancer vaccine against prostate and breast cancer. In 2007 he moved to Ludwig Institute for Cancer research as a research fellow for Cancer Research. During his tenure (2007-2009) at Ludwig Institute for Cancer Research his work focused on Synthesis and characterization of small molecules as Indoleamine-pyrrole 2,3-dioxygenase (IDO) inhibitors.In 2009 Dr. Awad moved to join the Brain Mind Institute at the Swiss Federal Institute of Technology Lausanne as research fellow in neurosciences. During his tenure (2009-2011)his work focused on understanding the mechanisms of protein misfolding and fibrillogenesis and the role of these processes in the pathogenesis of Parkinson's, Huntington's and Alzheimer's disease.
In 2011 Dr. Awad moved to join Faculty of Pharmacy at Al-Quds University Jerusalem as a tenure-track assistant professor in pharmaceutical and Medicinal Chemistry. Currently, Dr. Awad is an assistant professor of Faculty of Engineering at Dammam University.

Research efforts of Dr. Awad focus on:

1. Design and preparation of anticancer vaccines based in C-glycosides antigens and the synthesis of small molecules as anti-cancer inhibitors.
2. Understanding the molecular mechanisms of neurodegeneration and developing novel chemical tools strategies for understanding the mechanisms of protein misfolding and fibrillogenesis.
3. PrepareNanocomposite microcapsules with both gold and magnetite nanoparticles like iron based nanoparticles and conjugate three drugs on it, one work against the tumor stem cells and the other work against the tumor cluster. The combination between the two methods allow to achieve the diversity in the biological applications by Appling laser radiation on the gold nanoparticles to open Nanocomposite microcapsules, and Iron nanoparticles of the microcapsule shell will enable controlling the capsules position by external magnetic fields effect.

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Dr. Awad's research has resulted in preparation of an anti-cancer vaccine for breast and prostate cancer which show promising results in vivo, Moreover Dr. Awad prepare a novel chemical tools to control the misfolding of protein and peptides,

Dr. Awad scientific contribution to these fields includes: i) 7 publications in major peer reviewed journals including JBC, Medicinal Chemistry, Chemical communication, Chemistry European Journal, Tetrahedrons; ii) one patents onIDO inhibitors and therapeutic uses thereof, currently there are 3 papers in preparationsneurodegenerative disease area and one in cancer research.

Dr. Awad has received several pre-doctoral and post-doctoral awards and fellowships and was named as the recipient of Swiss Chemical Society prize for the best presentation in Medicinal Chemistry section of the fallmeeting in Zurich 2004, and the prize for the best presentation in "conference universitaire de Suisse Occidentale" Villars, Switzerland 2006.