ELECTROCHEMSA WORKSHOP V

International workshop on the transfer of academic research to commercial output

SCIENCE TO TECHNOLOGY (S_2T)

UNIVERSITY OF THE WESTERN CAPE

BELLVILLE, SOUTH AFRICA

Monday, 28th May 2012

Bridging the gap between research development within an academic environment and exploring the usefulness of our technology as applied in the real world, has been and still is a grey area for researchers at many of South Africa's universities. This is particularly true for research development in the field of Electrochemistry and Electro-analytical Chemistry. It is however an undisputed fact that a vast amount of potentially useful ideas have been developed, tried and tested in the laboratory including a variety of sensing formats (biosensors, immunosensors etc.), electrochemical capacitors, batteries, fuel cells, novel membrane systems and many more. The drive at this time is to get these concepts and proofs to market. The 5th ElectrochemSA workshop provides an opportunity for us to explore the infrastructure, scope and possibilities of transferring Science to Technology (S_2T) that will benefit our industries and communities as well as make a meaningful contribution to the South African economy and Scientific advancement. Representative of the Technology transfer office (UWC), TIA, NRF and DST will provide an overview of the role that each partner can play in facilitating the S_2T process. Our guest speaker, **Professor Omowunmi Sadik** (State University of New York, Binghamton) is also director of the University's Center for Advanced Sensors and Environmental Systems (CASE) research. She will share her experience with respect to the research and development of the novel micro-biosensor system, called **CapWave**, its successful transition to prototype and eventually market release and sales.

The foundation of the new tester was technology pioneered by Omowunmi "Wunmi" Sadik, professor of chemistry at Binghamton University and director of the University's Center for Advanced Sensors and Environmental Systems (CASE) research. In laboratories like Sadik's, biosensors have become increasingly sophisticated in recent years. Depending on how Sadik's sensors are configured, they can detect all kinds of organic and inorganic matter. The sensors rely on capillaries, tiny glass conduits in which the actual testing takes place. Sadik refined the capacity of those capillaries to test for small amounts of toxins. The new CapWave device is so sensitive that it can detect a sample as small as a tenth of a pictogram (a trillionth of a gram) in a thousandth of a liter of liquid. It's quick, too. The standard for testing a food sample is 12 to 24 hours. We expect the new tester to trim that by eight to 12 hours.

Press release!!! Press release!!! Press release!!! Press release!!! Press release!!!

SANTA ANA, Calif., April 12, 2011 /PRNewswire/ -- AquaStar Holdings, Inc. (Pink Sheets: RPPR) announced that the Company's wholly-owned subsidiary, SUTIMCo, had signed a Venture Acceleration Agreement with Capwave Sensor, Inc., valued at $2,790,000. Capwave is the maker of a revolutionary portable Enzyme-Linked ImmunoSorbent Assay (ELISA) test platform. According to the terms of the Agreement, SUTIMCo will assist Capwave with development and commercialization of its technology for a period of three years at $77,500 per month.

"Discovery and learning are intricately connected, I believe that chemistry must be relevant to life. It's the inspiration for my research and my teaching." Quote by Prof O Sadik

Venue: Public Health Building room 1G, UWC Main campus, Modderdam Road, Bellville

Time: 13h00-22h00

Time	***Presentation***	***Author***
13h00-13h45	Registration	**ECA5 committee**
13h45 -14h00	Opening ceremony	**Prof PGL Baker** *Chairperson: ElectrochemSA*
14h00-14h20	Electrochemistry Research	**Prof EI Iwuoha** *Director: SensorLab*
14h20- 14h40	Technology Transfer Office (UWC)	**Mr D Sanyamhumbi** *Director: TTO*
14h40-15h00	Technology Innovation Agency (TIA)	**Mr C Landsberg** *General Manager- Business Support and Advisory*
15h00-15h20	Department of Science and Technology (DST)	**Ben Durham** *Director: Biotechnology*
15h20-15h40	National Research Foundation (NRF)	**Ms Anthipi Pouris** *Capacity & Strategic Platforms Grants*
15h40-16h00	*TEA BREAK*	
16h00-17h00	State University of New York (SUNY) at Binghamton, CapWave Case Study	**Prof O Sadik** *Director: Center for Advanced Sensors and Environmental Systems (CASE) research, Binghamton University*
17h05-18h00	Open discussion	All participants
18h00-18h30	Closing ceremony	**Prof PGL Baker**
19h00	**Bloemendal Restaurant** networking dinner	All