

# AWAK NEWSLETTER

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**Address:**

**AWAK Technologies**

600 Sin Ming Avenue  
4th Floor CityCab Building  
Singapore 575733

**AWAK Technologies Inc (USA)**

3115W Olive Avenue  
Suite 6,  
Burbank CA 91505

**Contact:**

(65) 62106743

**Website:**

[www.awak.com](http://www.awak.com)

**Feedback/Enquiries:**

[info@awak.com](mailto:info@awak.com)

**Current Status:**

- Preparation for pilot production
- Pre-Clinical Test in laboratories
- User Interface Design Survey

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**Chairman's Message**



**Chairman: Dr. Gordon Ku**

We are entering the second quarter of 2011 and in doing so, marking the 4<sup>th</sup> anniversary of AWAK Technologies. We had progressed a great deal in the last 4 years from a group of visionaries to a company that will make a difference in the history of dialysis.

In February this year, we completed a second animal study at SingHealth Experimental Medicine Centre (SEMC) Singapore on a swine. The results of the study proved that the AWAK sorbent cartridge is able to provide the same clearance as what was calculated from our tidal trial. This will be further verified by a larger animal trial before we proceed to a full clinical trial.

Performance aside, I believe that any medical devices must be patient-centric. Therefore, feedbacks from existing peritoneal dialysis patients were taken into consideration as we continuously refine our AWAK design. Currently, we are conducting a User Interface Design (UID) survey with Kidney Dialysis Foundation (KDF) in Singapore. The purpose of this study is to explore patient's views on the ease of use of AWAK All-in-One (AiO) design. The response of the result will be revealed in our next newsletter.

I am looking forward to the 48th ERA-EDTA Congress in Prague, Czech Republic from 23rd to 26th June where we will be show casing the AWAK AiO for the first time in Europe. We will be showing the different disposable units usable with AiO: High Capacity Cartridge and Regular Cartridge. We welcome you to visit us at our booth at Prague Congress Centre.

I would like to take this opportunity to thank our entire team for sharing the same passion and drive to give renal dialysis patients their life and freedom. For the stakeholders, thank you for your continuous support over the years in enabling us to bring AWAK to the dialysis world. Last but not least, I would like thank all who believe and supported us in our mission of improving the livelihood of kidney patient, to contribute to medical science, society, economy and humanity.

**Upcoming Events**



**XLVIII**  
era-edta  
congress  
Prague Czech Republic  
June 23-26.2011  
Booth 2.15

See you there!

# Protein Study on AWAK Cartridge



*Dr John Collins*

Dr John Collins is an Associate Professor in Nephrology from Auckland, New Zealand (Auckland City Hospital and University of Auckland) who has been spending part of his sabbatical with us. He has a long-standing interest in Peritoneal Dialysis and sees the AWAK as an important breakthrough in the management of ESRD patients.

While with us he has been working on several projects. The first relates to the capacity of the sorbent cartridge to remove protein-bound toxins. This work is being undertaken with Dr Marty Roberts. Current peritoneal and hemodialysis therapies remove only small amounts of these toxins.

Initial studies have focused on a commonly used medication, digoxin, which is about 30% protein-bound. Digoxin is cleared consistently on a single pass through a trial sorbent column. Free and bound clearance is being assessed along with the capacity of dialysate albumin (which has passed through a sorbent cartridge) to re-bind digoxin. Thereafter the experience gained will be used to test removal of clinically important highly protein-bound uremic toxins such as P Cresol Sulphate and Indoxyl sulphate.

He has also been providing clinical assistance to Dr Christian Bluchel working with an animal model of PD. Finally he has been working on data from the Tidal Peritoneal project undertaken at SGH by Dr Marjorie Foo in collaboration with AWAK. A manuscript of this study is being prepared for submission.

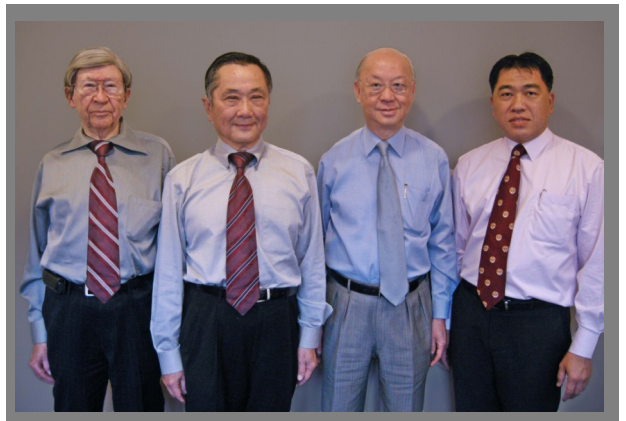
## AWAK Story

This story is one that we are proud of and which we will share with you. In 2006, the seed of AWAK Technologies was sowed and its destiny defined when Dr Gordon Ku met Dr David Lee at the International Society of Nephrology meeting in Los Angeles. It was a meeting of mind, sense of purpose, vision and mission.

A form of peritoneal dialysis, based on sorbent regenerated dialysis fluid was postulated by Dr David Lee & Dr Martin Roberts in 1999. This forms the working principle of the wearable kidney. A momentous decision was made to turn theory into reality.

AWAK Technologies was incorporated in Singapore in April 2007 to create the first peritoneal-based wearable kidney. The founding members include Dr. David Lee and Dr. Martin Roberts, who are our scientists, Mr Neo Kok Beng, president and CEO, and Dr Gordon Ku as the Chairman. In April 2008, we announced an exclusive licensing agreement with University of California, Los Angeles and we have since partnered with Temasek Polytechnic in Singapore to develop AWAK.

In a span of 4 years, we have invented a wearable AWAK device, capable of delivering the most efficient form of dialysis to-date. Its portability and wearable feature will improve the life-style and time management for patient. The medical advantages of continuous dialysis include increased general well-being, better control of hypertension, fluid balance, anaemia and phosphate metabolism, will soon be realised and proven.



*From Left: Dr Martin Roberts, Dr David Lee, Dr Gordon Ku, Mr Neo Kok Beng*

**We welcome more feedbacks  
at [info@awak.com](mailto:info@awak.com)**