

WINNER OF THE BEN STURGEON AWARD 2005

At the Opening Ceremony of the recent EuroDisplay 2005, 25th IDRC, held in the Edinburgh International Conference Centre, Edinburgh, Shigeo Mikoshiba, President of the SID, presented the Ben Sturgeon Award for 2005 to Richard Woodgate.

The Ben Sturgeon Award is offered annually by the UK & Ireland Chapter of the SID, for outstanding work by a young scientist in a field related to liquid-crystal display technology. Ben (short for Bennett) was for many years the research director of BDH Ltd, both before and after the company became part of the E. Merck Group. Among many achievements, he was the driving force behind commercialisation of the cyanobiphenyl liquid crystals, then newly discovered by Professor George Gray and his colleagues in collaboration with the displays group at Malvern. His energy, focus and judgement were an inspiration to the younger scientists who worked with him and are commemorated by the award.

This year's winner, Graham Woodgate read physics at Bristol University achieving a first class honours degree in 1987. From there Graham went on to Reading University where he did an MSc in Applied & Modern Optics gaining a distinction and picking up the Pilkington Prize for top student in 1988.

Graham began his career as an Optical Engineer at Crosfield Electronics Ltd working on the development of a novel high productivity 6000 dpi scanner for the printing industry. After three years he joined the newly set up Sharp Laboratories of Europe (SLE) in Oxford as Principal Researcher within the Imaging Optics Team. This very productive period saw Graham make a major contribution to Sharp's 3D imaging portfolio. This included the invention and development of several autostereoscopic 3D displays and led to Sharp producing the worlds first switchable 2D/3D display cell phone. Sharp has gone on to sale 3 million units and the technology is now in laptops and LCD monitor products. In 1998 Graham was promoted to Manager of the Novel Projector Technology Group where he led the development of several novel technologies for LCD projectors. He was responsible for around 20 granted US patents during his tenure at SLE.

In 2001 with Jonathan Harrold he founded Ocuity Ltd in Oxford. Originally the company provided high-value technical consultancy services in optical and electronic projects for the electronic displays and fibre-optic telecommunications industries. After a short period Graham and Jonathan began their own internal research programme into new types of optical systems. This led to the invention and demonstration of a new class of optical architectures suitable for flat-panel displays. This new architecture is called *Polarisation Activated Microlens*TM. This technology may be used for brightness enhancement which is particularly important for OLED and transfective displays as well as to produce very high-quality, high-efficiency, low-cost switchable 2D/3D displays. This technology has been protected by a portfolio of 12 patents, the fundamental one of which is now granted. The technology has recently been licensed to a major manufacturer in Asia for productionisation. The work has also been published at the IDW03 and in IDW04 where it was the recipient of the *SID Outstanding paper Award*.

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Shigeo Mikoshiba presenting the Ben Sturgeon Award 2005 to Graham Woodgate

Photo: John Mansell