

Constellation offers technological advances for VR surgery

Vitreoretinal surgeons from around the country attended the 5th annual VR meeting in Auckland last month. Sponsored by Alcon, the interactive meeting was held in one of the new wetlabs at the Department of Ophthalmology.


The timing was perfect for the VR specialists who got the opportunity to gain some 'hands-on' experience with the very latest piece of equipment for vitreous surgery, the Constellation Vision System.

Julian Knaggs from Alcon said the Constellation Vision System is the result of years and years of R & D. It contains many of the features from the Accurus and incorporates improvements in virtually all aspects of surgical functionality and performance. Julian said the big advances on previous technology lie in three key areas: infusion, cutting and aspiration.

For the first time, this new system monitors infusion pressure enabling the surgeon to adjust and control IOP during retinal surgery. It features advanced xenon illumination and an embedded 532-nm laser is an option.

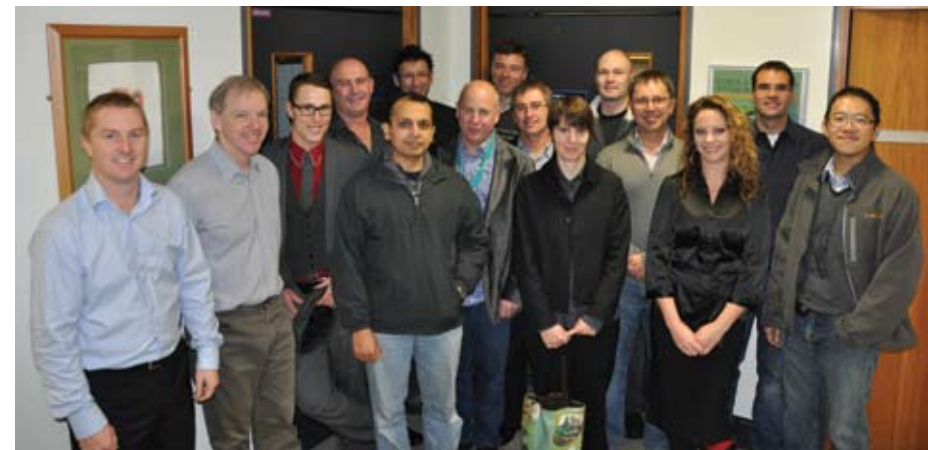
The advanced Ultravit Vitrectomy Probe technology in concert with the Constellation Vision System enables vitrectomy and membrane dissection at previously unattainable cut rates of 5000 cuts per minute and variable duty cycles (port open v's port closed). The pneumatic Ultravit Probe design draws from the best features of the Accurus and Innovit Probes and incorporates all-new patented technology as well.

This is the first vitrectomy probe designed for small gauge vitrectomy surgery from the ground up. The probe is available in 20-, 23- and 25-g formats and can be configured for additional gauge sizes, reducing the time it takes to develop new gauge formats.

It's been 11 years since the release of the Accurus and although there have been a number of significant upgrades to that system, the Constellation represents a major shift in design and functionality. Two systems will be used in Auckland, at Mercy Hospital and Eye Institute, and it is expected that several more will be in use around the country before too long. 



Dr Philip Polkinghorne with the Constellation which he has ordered for the Mercy Hospital in Auckland



VR surgeons at the Auckland meeting with Alcon staff. From left: Julian Knaggs, Archie McGeorge, Joe Davies, Steve McConnell, Nadeem Ahmad, Sean Avery, Philip Polkinghorne, Stephen Guest, Mike O'Rourke, Sarah Welch, Steve Mackey, David Worsley, Megan Hose, Peter Hadden and Kolin Foo



The Ocutome II was the equipment used in the early 80's for vitreous surgery. Dr Calvin Ring arranged for this particular piece of equipment to be donated to the Auckland Hospital Board. Dr Philip Polkinghorne pointed out that this was the equipment he started on in Auckland 20 yrs ago this year and in those days there was no endo laser or airpump. He said its certainly been an amazing time to be part of the technology change