Wet Lab description – SASCRS 2026 Johannesburg

All wet labs are supported by a partnership between the SASCRS 2026 conference, Lions World Vision Institute, others supporting microscopes, and Instructors Dr. David Gunn, Dr. Sean Edelstein, Dr. Leonard Heydenrych, and Dr. Cor Van Zyl.

CAIRS

Dr. David Gunn (Australia) will begin the session with an overview of CAIRS, surgical planning, tunnel creation (femtosecond laser and manual dissection), and instrumentation. In the hands-on wet lab portion, the participant will create the CAIRS tunnel in the recipient cornea using a manual dissection technique and then insert the donor CAIRS graft segment into the recipient tunnel. This wet lab uses human cornea CAIRS graft segments and human recipient cornea mounted on an artificial anterior chamber. The lead instructor, Dr. David Gunn, is a worldwide leader with extensive experience in the CAIRS procedure. **Co-Requisite: For Critical Surgical Planning guidance, all participants must attend Dr. David Gunn's full presentation and lecture, in Session 1 on 13th February at 09:25: CORNEA SA LECTURE, "CAIRS – A paradigm shift in the management of keratoconus."**

Endo-In DMEK

An advanced DMEK insertion technique, the participant will insert a preloaded Endo-In DMEK graft into an artificial anterior chamber, using a fluid wave motion. Because the graft is folded endothelial side in, the graft naturally opens when inserted into the anterior chamber. There is no pulling, no pushing, no cornea tapping required. This technique uses a syringe with BSS to advance the graft; a no-touch technique. The session will begin with a presentation on this device and technique by the lead instructor and supported by other international and South African instructors and LWVI staff. The lead instructors**,** Dr. Leonard Heydenrych (Cape Town / Port Elizabeth), and Dr. Sean Edelstein (USA), have extensive experience with use and teaching this new device and technique. Because this is an advanced technique, the basics of the Standard DMEK (endo-out scroll) procedure and unscrolling (by tapping) must already be mastered. **Prerequisite: prior Standard DMEK experience required.**

Standard DMEK (Endo-Out Scroll)

Using human cornea for graft and recipient model, the participant will insert a preloaded endo-out scrolled DMEK graft into an artificial anterior chamber, using a fluid wave motion, and unscroll the graft using exterior tapping and other movements from cornea surface. The modified micro jones tube has a 1.6mm outer diameter and may not always require a suture. This technique uses a syringe with BSS to advance the graft; a no-touch technique. The session will begin with a presentation on this device and technique by the lead instructor and supported

by other international and South African instructors and LWVI staff. The lead instructors**,** Dr. Leonard Heydenrych (Cape Town / Port Elizabeth), and Dr. Sean Edelstein (USA), have extensive experience with use and teaching this new device and technique. **Prerequisite: prior DSAEK or DMEK experience preferred. PKP experience required.**

TransplantREADY DSAEK

Using human graft tissue and human recipient mounted on an artificial anterior chamber, the participant will insert the preloaded TransplantREADY DSAEK graft into the AAC. The graft is preloaded into a proprietary LWVI glass cannula and, by using fluid wave motion (BSS in a syringe), the graft moves into the AC and quickly opens without manipulation. It is a no-touch technique. The session will begin with a presentation on this device and technique by the lead instructor and supported by other international and South African instructors and LWVI staff. The lead instructor Dr. Sean Edelstein (USA), has extensive experience with use and teaching this new device and technique. **Prerequisite: experience in PKP procedures required, EK experience preferred but not required.**