

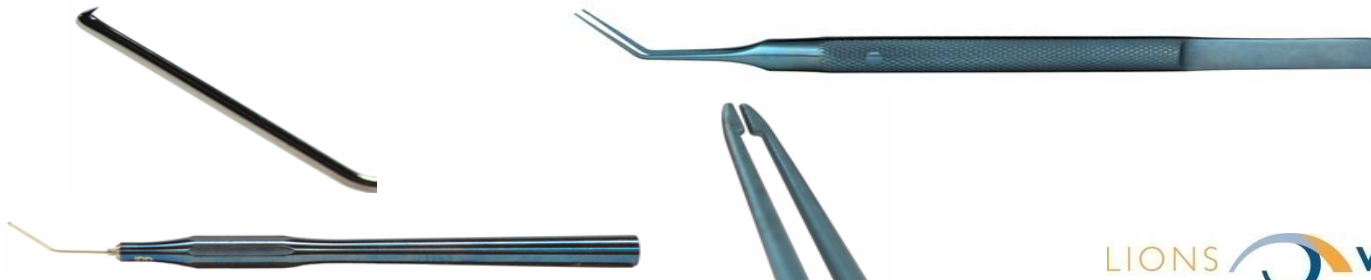
Standardized DMEK surgery: Results in the first 100 routine cases of Fuchs dystrophy and PBK

Mark A. Terry, MD
Michael D. Straiko, MD
Peter Veldman, MD
Zachary M. Mayko, MS

**Scientific Director
Lions VisionGift
Research Lab**

Disclosures

- The speaker has no financial interests relevant to the topic of this talk.
- Non-relevant disclosure: Merck speakers bureau.
- Dr. Terry receives royalties from Bausch and Lomb for the surgical instruments he has developed.
- Off Label Use of: Trypan Blue, SF6 Gas, Modified Jones glass tube.



Pre-stripped Donors for DMEK: LVG: Current Tissue Wastage rate of <3%

For Patient Chart

Donor Information



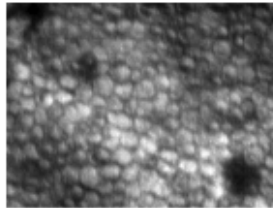
DMEK Prepared Tissue Report

Ocular Tissue is
from an E.S.A.A.
Acquired
Eye Bank

Date/Time of Death: 10/09/11 15:15 Procurement by: Jenkinson, Maggie
Date/Time of Preservation: 10/10/11 2:20 Released for Transplant by: Zack McLennan
Date/Time of Processing: 10/11/11 9:03 Prepared for DMEK by: Galloway, Joshua
Post-prep Evaluation by: Josh Galloway
Date/Time of Evaluation: 10/11/2012 | 9:22

POST PREPARATION EVALUATION

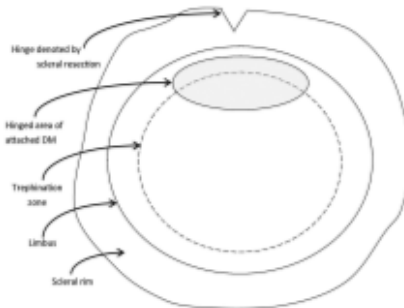
Endo Cell Count: 3012
Max Graft Diameter (mm): 9.0
Tears? None
Defects? mild to moderate cell drop out
Stress Lines? mild to moderate diffuse stria
Hinge: Hinge denoted by scleral
resorption
General Comments



PRECAUTIONS/INSTRUCTIONS FOR USE

This tissue has been prepared for Descemet's membrane (DM) endothelial keratoplasty. The standard precautions for tissue use apply (see Package Insert for Eye-Tissue for Transplant form). That suitability for tissue use ultimately rests with the surgeon. Additional precautions are as follows:

- DM has been scored circumferentially at the limbus and approximately 3/4 of the entire membrane has been separated using a modified SCUBA technique.
- Care has been taken to replace the membrane to its original anatomic orientation for post-processing evaluation and transport to the OR.
- During transport to the OR, the membrane may float freely in the media. Prior to implantation, carefully wick storage media from the interface between DM and cornea using a Microcel® or similar type sponge. Visualization may be aided with Vision Blue.
- Once the graft has been trephined, REMOVE THE ANNULUS OF NON-TRANSPLANT DM PRIOR TO SHAPED UTILIZATION.
- Once the graft has been trephined and the limbus denuded of DM between the limbus and graft, carefully grasp the tissue OPPOSITE the triangle wedge resection in the sclera. The membrane should be wick up to the point of the Hinge. Use extreme care while peeling the remaining adherent membrane to avoid tearing the delicate graft.



ID# 2012-1387.CNOS

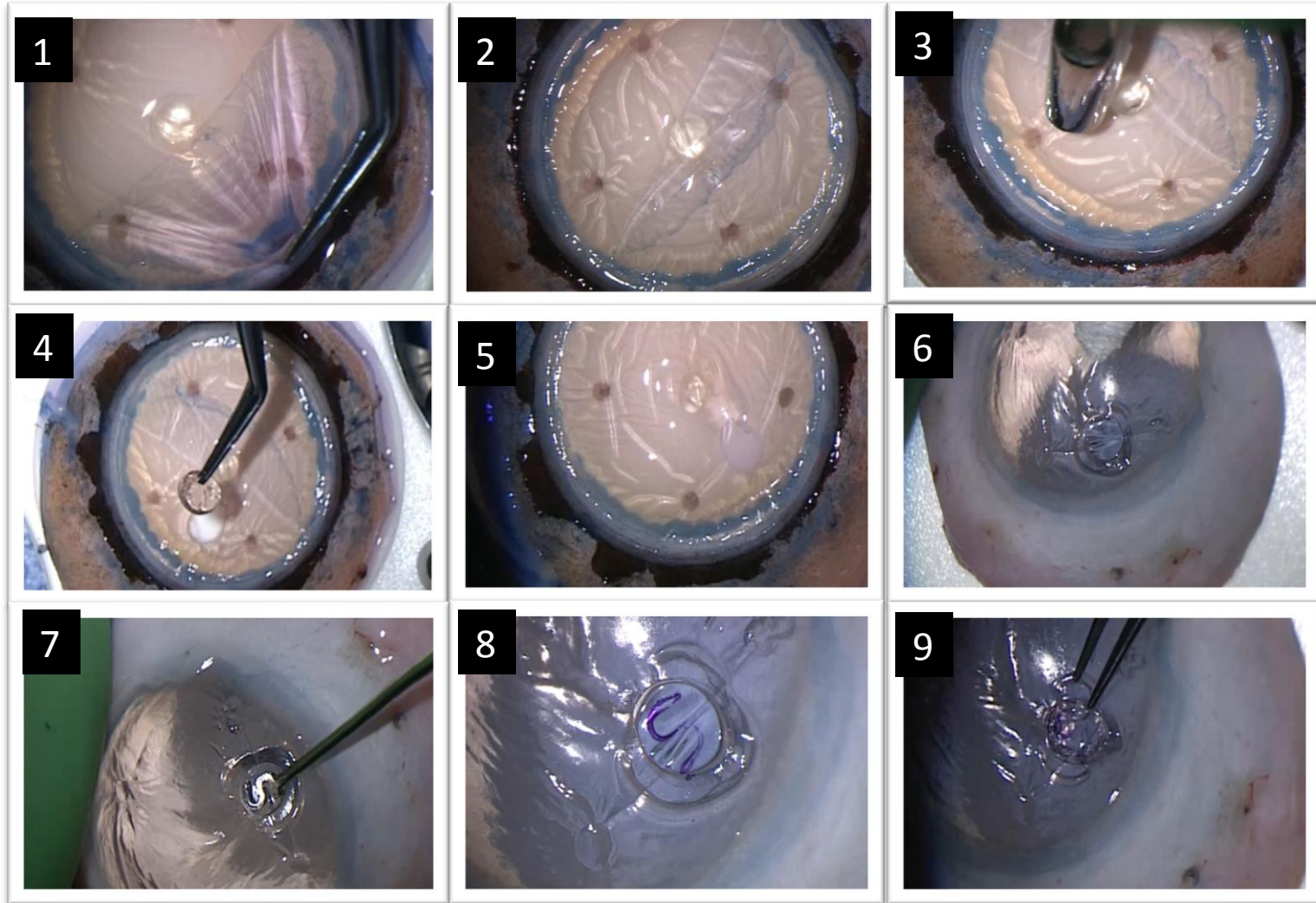
ID#

Lions Vision Gift
2305 SE 15th Ave
Portland OR 97214

503.866.7070
866.943.7793 Int'l

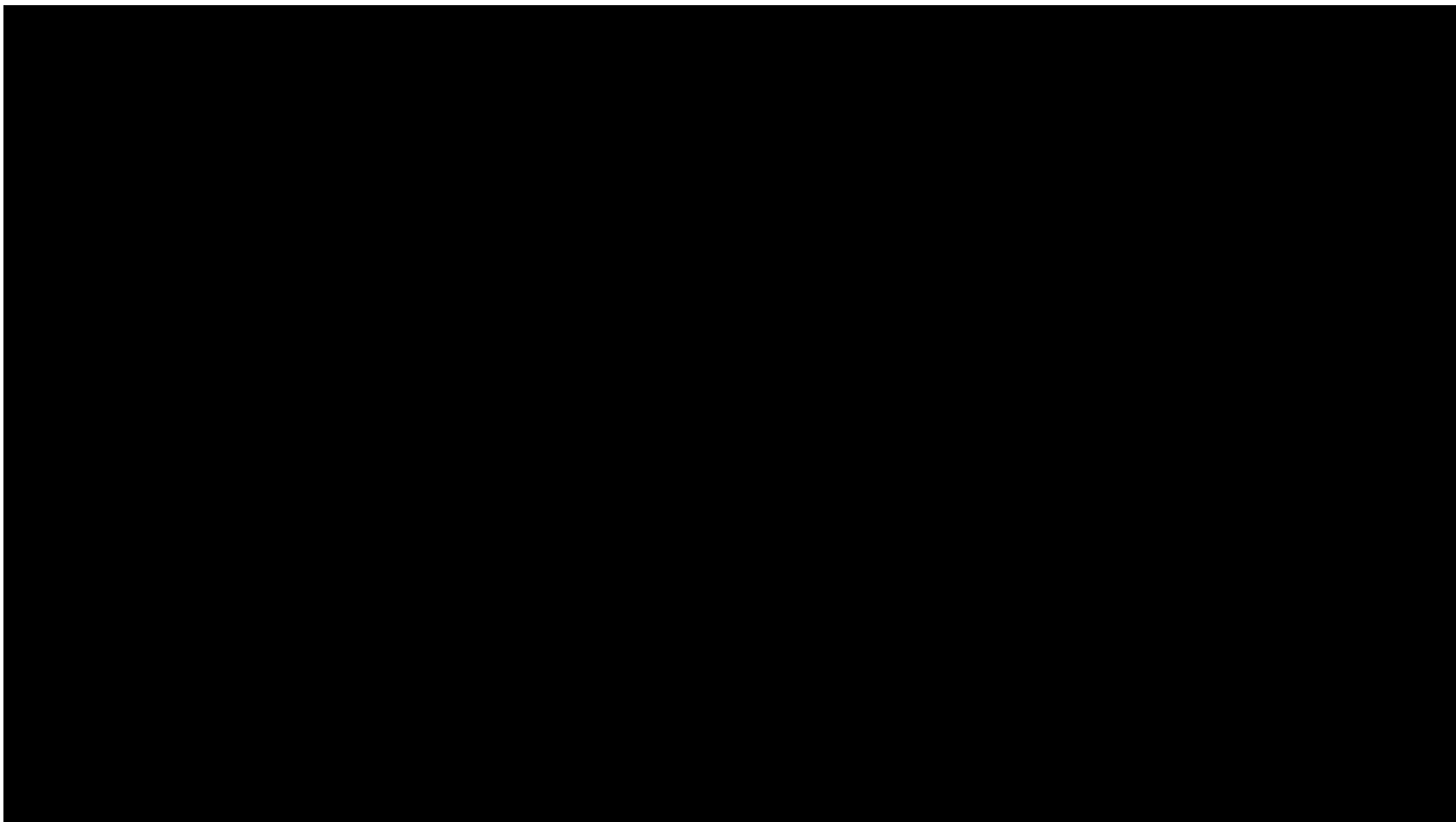
503.866.7071 Fax
866.796.9040

Pre-Marked Donor Tissue: S-Stamp Technique



Technique conceived by Philip Dye, Lions VisionGift, Portland, OR

Standardized DMEK Technique



Results with Standardized DMEK in first 100 cases

N = 100 (4 surgeons, includes Fellows first cases) for routine Fuchs and PBK

Re-bubbles: 7 (rate = 7%...only 4% if PGF excluded)

Iatrogenic PGF: 3 (rate: 3%)

(3 of 3 cases due to upside-down graft)

(NO upside-down grafts since using S stamp)

In prior 68 cases using plastic injectors, Melles anterior bubble technique, and air bubble support:

Rebubble: 33%

PGF 15%

Results with Standardized DMEK in first 100 cases

Endothelial cell loss at 6 months (n= 57): 29%
(s.d. = 16%)

Mean Visual Acuity at 6 months (n= 57): 20/28
(range: 20/20 to 20/50)

Percent of eyes 20/20 or better at 6 months = 37%

Percent of eyes 20/25 or better at 6 months = 61%

Summary and Conclusions

- With the advent of pre-stripped and pre-marked tissue, Yoeruek Tap technique, Straiko glass inserter, and use of SF6 gas, the DMEK procedure now has as low a complication rate as DSAEK and better visual results in routine cases
- Patients deserve the best and safest surgery
- DSAEK will still be needed for complex cases
- Surgeons now can accept DMEK as “ready for prime time” and learn the surgery

Thank You



NICHOLAS

Standardized DMEK Technique



CHARLIE



CINDY