

Case #1: 18 yo FM

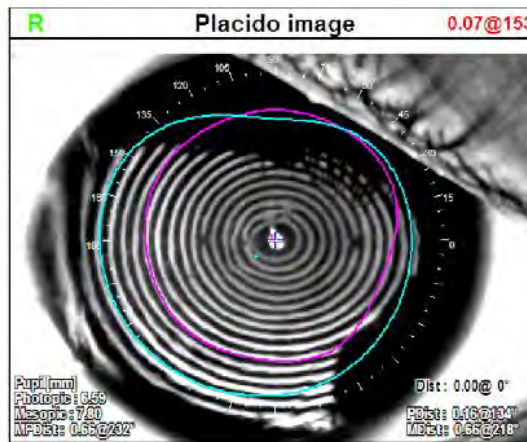
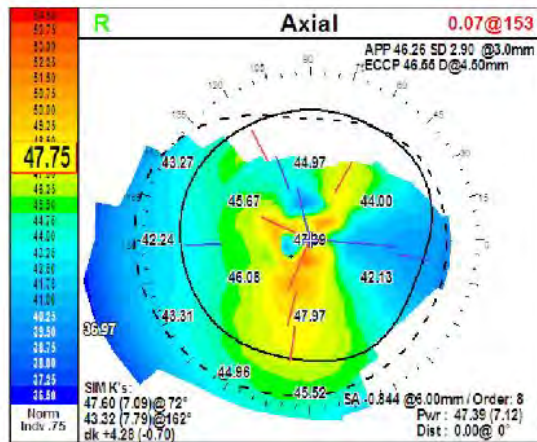
Macular Stromal Dystrophy both eyes



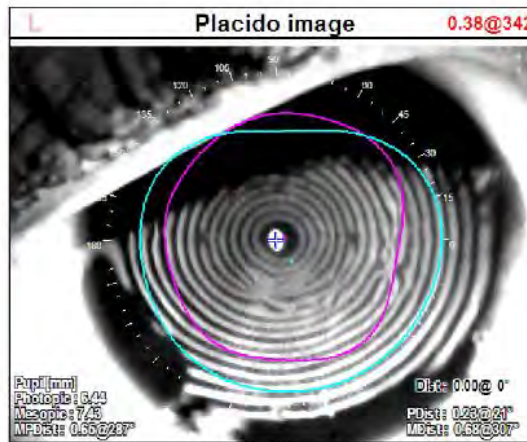
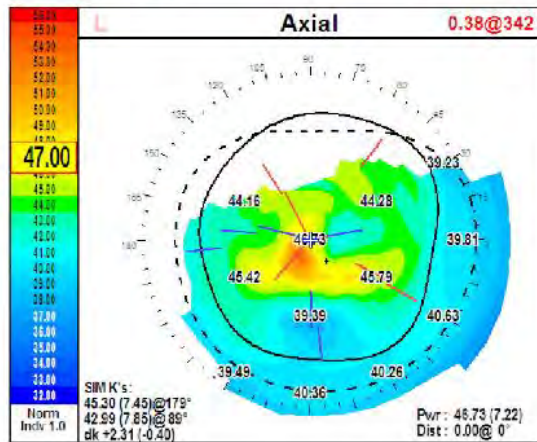
Case #1: 18 yo FM

Macular Stromal Dystrophy both eyes very poor vision especially at night OU

L	12/14/2016 11:39	Comment	L	Diagnosis	L
R	12/14/2016 11:38		R		R



-4.75+5.0x89 20/50



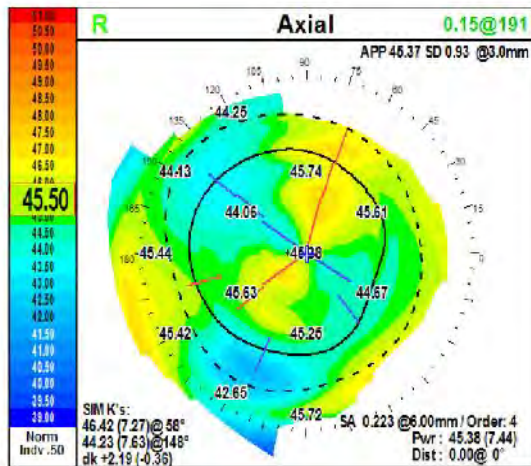
-2.25+2.50x89 20/40

SimK Steep	SimK Flat	dk	e(Q)	SA@6.0mm	Pupil
45.30(7.45)@179°	42.59(7.65)@ 89°	-2.31(-0.40)	-1.20(1.45)	0 -0.05 C-0.60	6.44 7.43
47.60(7.09)@ 72°	43.32(7.79)@162°	+4.28(+0.70)	0.92(+0.24)	0 -0.07 C-0.40	6.59 7.50
				Cornea Index: n=1.3775 (Ax), n=1.3760 (Re), 0.00 (I, PO) Q: 0.60mm	λ 687.6nm

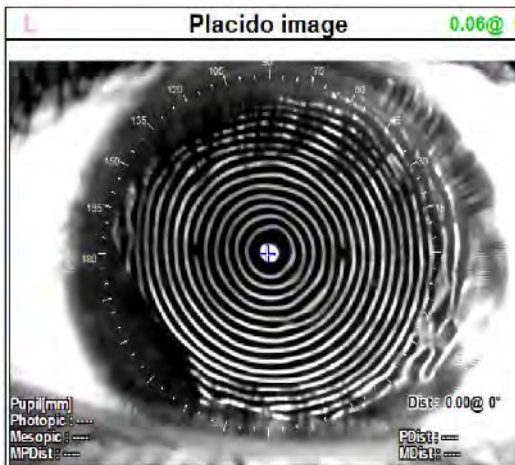
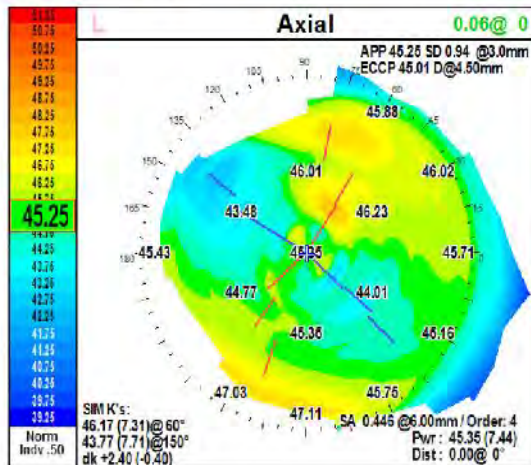
Case #1: (currently 25) yo FM Macular Stromal Dystrophy both eyes
 12/2017 OS: DALK 9.0mm bed/9.25mm donor – suture removed 2019
 05/2017 OD: DALK 9.0mm bed/9.25mm donor – suture removed 2018

L	06/24/2024 12:03	Comment	L	Diagnosis	L
R	06/24/2024 12:03		R		R

6/24/2024 7 yrs later



OD: -3.0+1.75x69 20/25



OS: -2.0+0.75 x 45 20/25

Case #1: 20 yo FM Macular Stromal Dystrophy both eyes

Summary: 7yr f/u after successful large (10mm dia) DALK OU

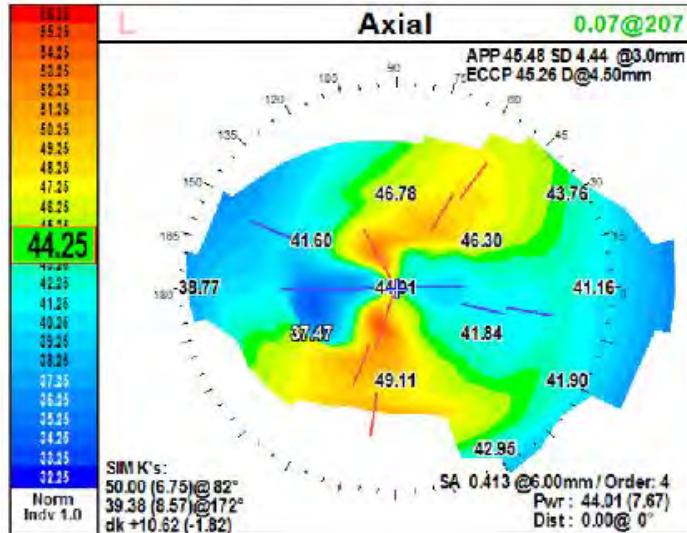
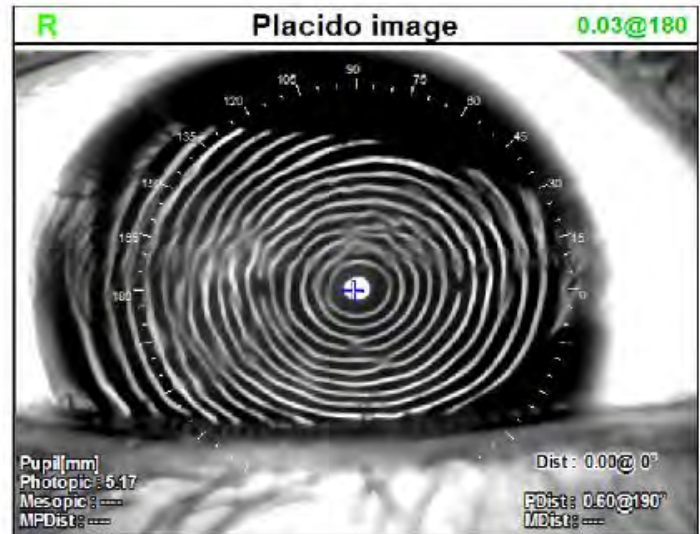
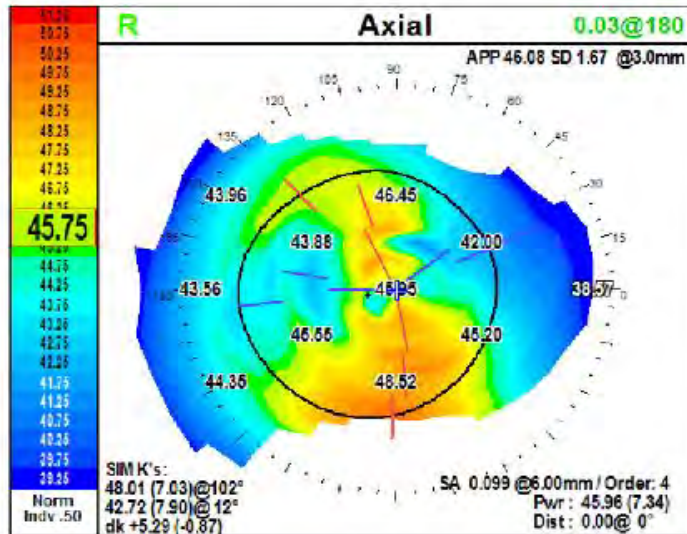
- Has enjoyed fully restored vision in BOTH eyes requiring mild spectacle correction over the last 7 yrs. No contact lenses needed.
- As of 6/24/2024, no evidence of recurrence stromal macula dystrophy
- Benefit of large diameter DALK graft w deep predescemets dissection to within 15-30u of DM is debulking genetically compromised host keratocytes posteriorly and peripherally to near limbus to prevent early recurrence in deep central stroma which has so far not occurred in this graft after 7 yrs. If peripheral recurrence were to advance into OZ and impact vision over the next decade, this graft is designed to be peeled off and replaced, thus preserving descemets membrane which in our opinion is sacrosanct at any age but particularly for this young patient.

Case #2: 22 yo (younger sister to case #1) w Macular Stromal Dystrophy OU

“Very poor night vision – cannot drive”

OD -5.0+2.50x90 20/40 OS: -5.0+3.0x95 20/40

L	04/04/2024 08:07	Comment	L	Diagnosis	L
R	04/04/2024 08:07		R		R



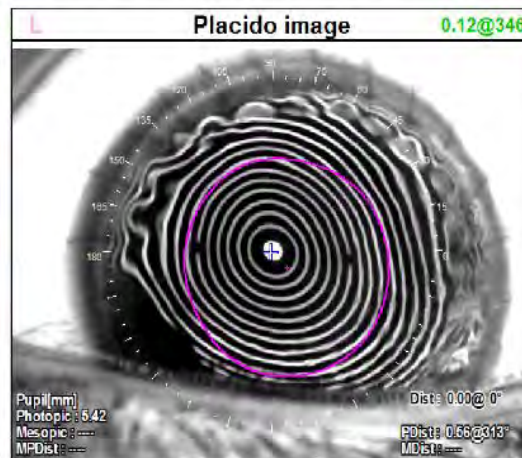
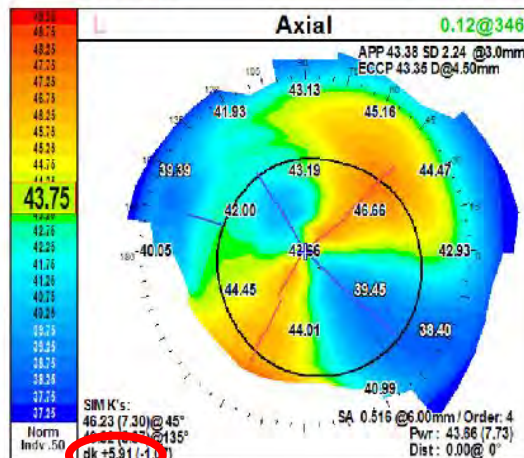
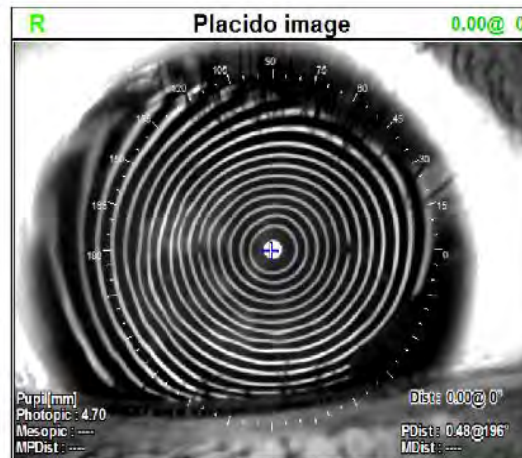
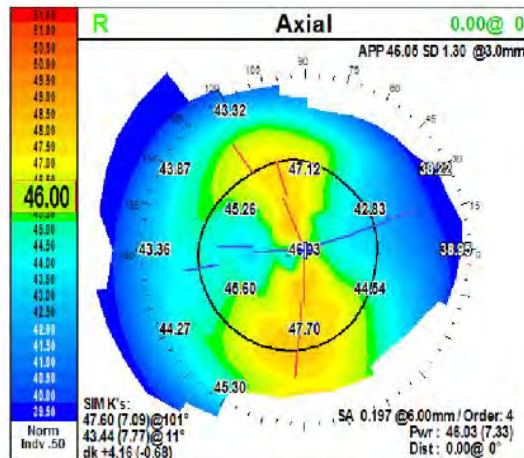
Case #2: 22 yo Macular Stromal Corneal Dystrophy

7/1/2024 OS TOPOGRAPHY below. High astigmatism

4/16/2024 OS: DALK 9.5mm donor/9.5 mm bed laterality matched nasal marked 24 bite running suture

07/01/2024 09:28	Comment	L	Diagnosis	L
07/01/2024 09:28		R		R

7/1/2024



- OD: UCVA 20/50
- Corneal opacities

- OS: UCVA 20/40!
- -1.75+4.25x45 20/20
- Running Suture "in"

Case #2: 22 yo Macular Stromal Corneal Dystrophy

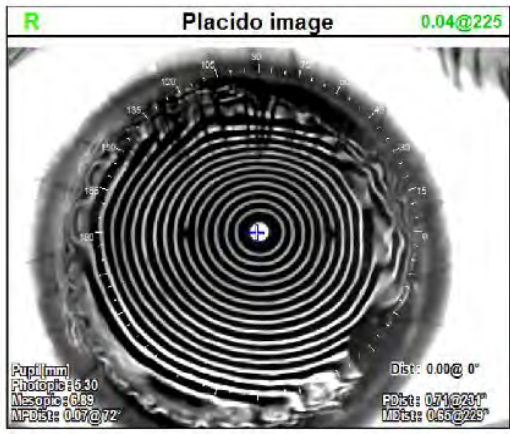
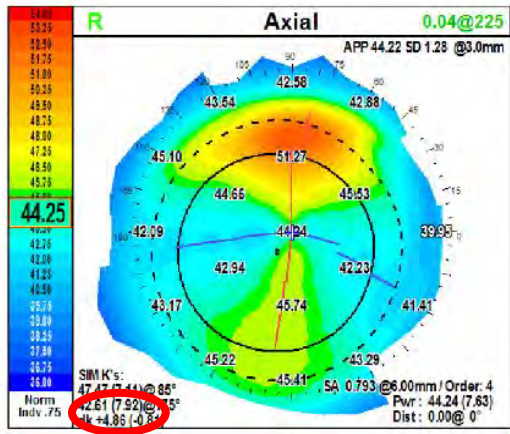
12/3/2024 OD: DALK 9.5mm bed/9.5mm donor laterality matched nasal marked 24 bite running suture

7/2024 OS: Adjust running suture under intraoperative keratometer

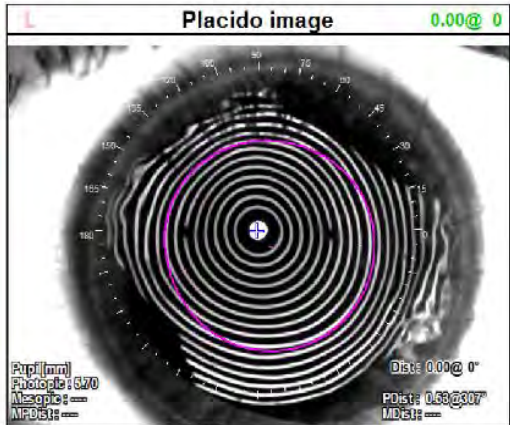
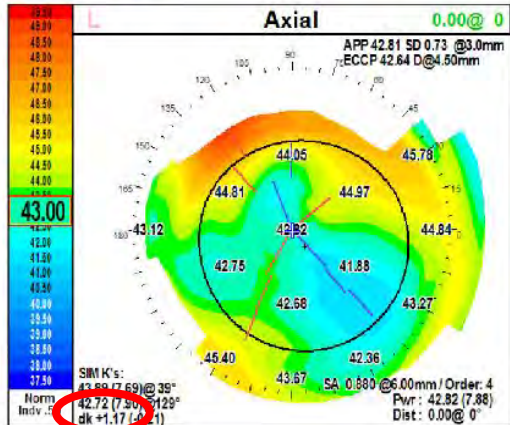
4/16/2024 OS: DALK 9.5mm donor/9.5 mm bed laterality matched nasal marked 24 bite running suture

1/13/2025

L	01/13/2025 12:29	Comment	L	Diagnosis	L
R	01/13/2025 12:29		R		R



- OD: UCVA 20/50
- -3.5+4.5x83 20/25
- Running Suture "in"



- OS: UCVA 20/20!
- -1.0+1.50x19 20/20
- Running Suture "in"

Case #2: 22 yo Macular Stromal Corneal Dystrophy

THRILLED!! Can see "clearly" for first time in years...Got married all this same year!

1/28/25 OD: Adjust running suture under intraoperative keratometer

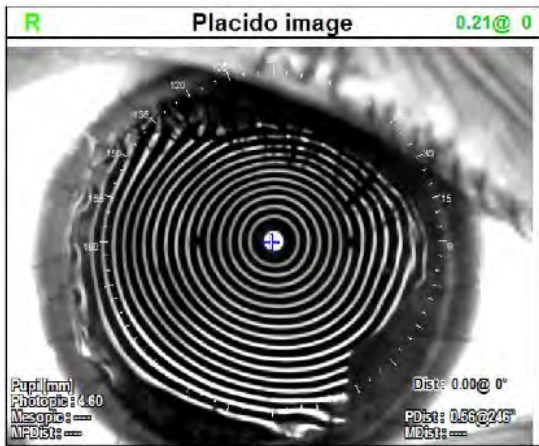
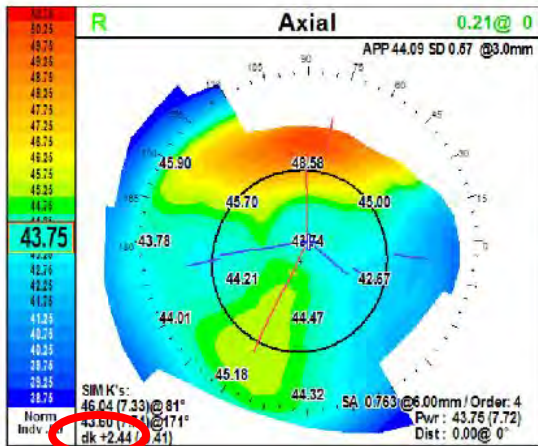
12/3/2024 OD: DALK 9.5mm bed/9.5mm donor 24 bite running suture

7/2024 OS: Adjust running suture under intraoperative keratometer

4/16/2024 OS: DALK 9.5mm donor/9.5 mm bed 24 bite running suture

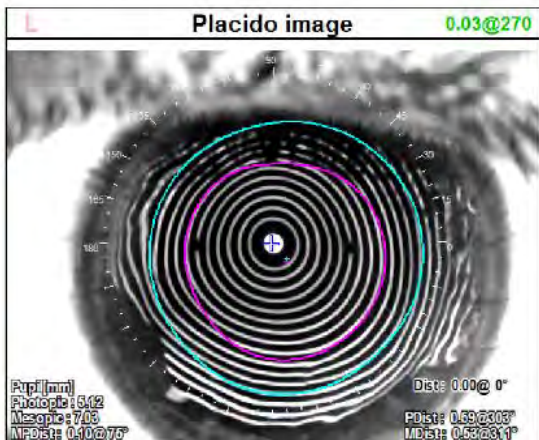
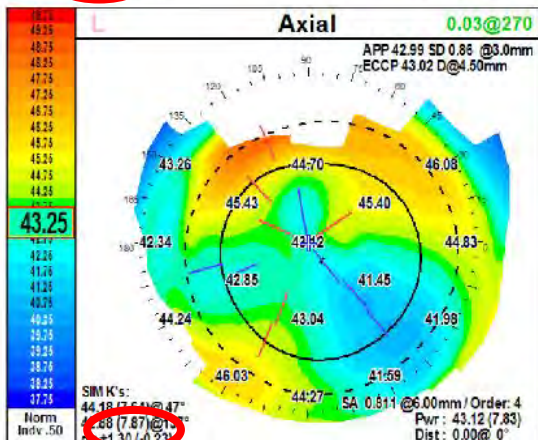
Date	L	R	Comment	L	R	Diagnosis	L	R
	02/10/2025 14:17	02/10/2025 14:17						

2/10/2025



OD: UCVA 20/30

Running Suture "in"



OS: UCVA 20/20!

-1.0+1.50x19 20/20

Running Suture "in"

Case #2 -Summary

- Very early visual rehabilitation (excellent Uncorrected Visual Acuity (UCVA) only 3 days after DALK in both eyes.
- Dramatically improved UCVA both eyes after running suture adjustment in each eye.
- Running suture will be left “in” both eyes. Since DALK grafts spherical and near emmetropic, intend to leave in place indefinitely or until it spontaneously breaks (about 3-5 yrs). The longer left in place, greater change graft maintains its shape after eventual removal.