ATTACHMENT 1

IN TEXT AND ADDITIONAL TABLES

(INCLUDES ALL TABLES FOUND IN AMENDMENT 13 AND ADDITIONAL TABLES NOT SHOWN IN THE NARRATIVE)

P050034 AMENDMENT 013
VISIONCARE OPHTHALMIC TECHNOLOGIES
IMPLANTABLE MINIATURE TELESCOPE™ (IMT)

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TABLE 1
DEMOGRAPHIC AND BASELINE CHARACTERISTICS
OPERATED SUBJECTS (N=217)
IMT-002

Gender		
Female	103	47.5%
Male	114	52.5%
Race		
Caucasian	208	95.9%
Black	3	1.4%
Hispanic	5	2.3%
Asian	1	0.5%
Age (In Years)		
Mean (SD)	75.6 (7.3)	
Minimum	55	
Maximum	93	
Anterior Chamber Depth		
Mean (SD)	3.15 (0.38)	
Minimum	2.48	
Maximum	4.74	
Type of AMD		
Geographic atrophy (GA)	85	39.2%
Disciform scar	93	42.9%
GA & Drusen	11	5.1%
GA & Disciform scar	8	3.7%
Drusen & Disciform scar	13	6.0%
GA & Drusen & Disciform scar	7	3.2%
Best-corrected Visual Acuity		
Mean BCDVA	20/312	
(Range)	(20/873, 20/80)	
Mean BCNVA @8"	20/315	
(Range)	(20/1262, 20/50)	
Mean BCNVA @16"	20/260	
(Range)	(20/632, 20/63)	

TABLE 2
OPERATED EYES WITHOUT IMT PLACEMENT
IMT-002

3	Posterior Capsule Tear
2	Choroidal Detachment
4	Posterior Capsular Tear
1	Zonular Dehiscence
1	Choroidal Hemorrhage

TABLE 3
AVAILABILITY AND ACCOUNTABILITY
OPERATED SUBJECTS (N = 217)
IMT-002

Available for Analysis	**n/N (%)**	217/217 (100.0%)	207/217 (95.4%)	204/217 (94.0%)	196/217 (90.3%)	196/217 (90.3%)	180/217 (82.9%)	174/217 (80.2%)
Discontinued	**n/N (%)**	0/217 (0.0%)	7/217 (3.2%)	11/217 (5.1%)	13/217 (6.0%)	16/217 (7.4%)	20/217 (9.2%)	29/217 (13.4%)
Deceased		0/217 (0.0%)	1/217 (0.5%)	3/217 (1.4%)	3/217 (1.4%)	5/217 (2.3%)	7/217 (3.2%)	10/217 (4.6%)
IMT removed postoperatively		0/217 (0.0%)	1/217 (0.5%)	1/217 (0.5%)	1/217 (0.5%)	2/217 (0.9%)	2/217 (0.9%)	8/217 (3.7%)
Lost to Follow-up	**n/N (%)**	0/217 (0.0%)	0/217 (0.0%)	0/217 (0.0%)	1/217 (0.5%)	2/217 (0.9%)	8/217 (3.7%)	13/217 (6.0%)
Missed Visit	**n/N (%)**	0/217 (0.0%)	3/217 (1.4%)	2/217 (0.9%)	7/217 (3.2%)	3/217 (1.4%)	9/217 (4.1%)	1/217 (0.5%)
% Accountability = Available for Analysis ÷ (Enrolled - Discontinued)		217/217 (100.0%)	207/210 (98.6%)	204/206 (99.0%)	196/204 (96.1%)	196/201 (97.5%)	180/197 (91.4%)	174/188 (92.6%)

TABLE 4
AVAILABILITY AND ACCOUNTABILITY
OPERATED SUBJECTS
IMT-002 -LTM

Available for analysis	3/3 (100%)	84/85 (99%)	113/125 (90%)	106/129 (82%)
Discontinued (cumulative)			4/125 (3%)	6/129 (5%)
Deceased			3/125 (2%)	5/129 (3%)
IMT removed postoperatively			1/125 (1%)	1/129 (1%)
Lost to Follow-up			3/125 (2%)	10/129 (8%)
Missed Visit		1 /85 (1%)	5/125 (4%)	7/129 (5%)
% Accountability = Available for Analysis / (Enrolled - Discontinued)	3/3 100%	84/85 99%	113/121 93%	106/123 86%

TABLE 5.1
MEAN BCVA AT BASELINE, 12 MONTHS AND 24 MONTHS
IMT-IMPLANTED EYES
IMT-002

Mean BCDVA **95% CI**	206	**20/312** (20/334, 20/291)	193	**20/141** (20/152, 20/131)	173	**20/149** (20/161, 20/138)
Mean BCNVA at 8" **95% CI**	206	**20/315** (20/341, 20/291)	192	**20/181** (20/196, 20/167)	173	**20/190** (20/207, 20/174)
Mean BCNVA at 16" **95% CI**	206	**20/262** (20/282, 20/244)	192	**20/149** (20/161, 20/138)	173	**20/157** (20/170, 20/145)

TABLE 5.2
VISUAL ACUITY EFFECTIVENESS ENDPOINT
IMT-002

Effectiveness (N=)	194	192	175	173
Overall Effectiveness Endpoint ***≥2 lines gain of BCDVA or BCNVA***	***171 (88.1%)*** ***83.6%, 91.8%***	***173 (90.1%)*** ***85.8%, 93.4%***	***150 (85.7%)*** ***80.6%, 89.9%***	***149 (86.1%)*** ***81.0%, 90.2%***
Binomial exact p-value for Ha: success rate > 50%	***<.0001***	***<.0001***	***<.0001***	***<.0001***
≥2 lines gain of BCDVA **and** BCNVA	141 (72.7%) 66.9%, 77.9%	141 (73.4%) 67.7%, 78.6%	115 (65.7%) 59.4%, 71.7%	114 (65.9%) 59.5%, 71.9%

TABLE 6
SUMMARY OF IMPROVEMENT IN VISUAL ACUITY
IMT-IMPLANTED EYES
IMT-002

[redacted]		
≥ 2 LINES GAIN OF BCDVA *OR* BCNVA	90.1% (173)	86.1% (149)
≥ 2 LINES GAIN OF BCDVA *AND* BCNVA	73.4% (141)	65.9% (114)
≥ 3 LINES GAIN OF BCDVA *AND* BCNVA	53.1% (102)	49.1% (85)
[redacted]		
≥ 2 LINES GAIN OF BCDVA	80.3% (155)	74.6% (129)
≥ 3 LINES GAIN OF BCDVA	66.3% (128)	59.5% (103)
≥ 4 LINES GAIN OF BCDVA	45.1% (87)	42.8% (74)
≥ 5 LINES GAIN OF BCDVA	25.4% (49)	19.1% (33)
[redacted]		
≥ 2 LINES GAIN OF BCNVA	82.8% (159)	77.5% (134)
≥ 3 LINES GAIN OF BCNVA	67.7% (130)	63.0% (109)
≥ 4 LINES GAIN OF BCNVA	49.0% (94)	43.9% (76)
≥ 5 LINES GAIN OF BCNVA	28.6% (55)	24.3% (42)

TABLE 7.1
SUMMARY OF IMPROVEMENT IN VISUAL ACUITY
IMT-IMPLANTED EYES
STRATIFIED BY PREOPERATIVE BCDVA
IMT-002

≥2 LINES GAIN OF BCDVA *OR* BCNVA	86.7% (13)	86.1% (99)	98.4% (61)	71.4% (10)	83.7% (87)	94.5% (52)
≥2 LINES GAIN OF BCDVA *AND* BCNVA	46.7% (7)	69.6% (80)	87.1% (54)	35.7% (5)	65.4% (68)	74.5% (41)
≥3 LINES GAIN OF BCDVA *AND* BCNVA	13.3% (2)	47.0% (54)	74.2% (46)	21.4% (3)	43.3% (45)	67.3% (37)
≥2 LINES GAIN OF BCDVA	53.3% (8)	74.8% (86)	96.8% (61)	42.9% (6)	71.2% (74)	89.1% (49)
≥3 LINES GAIN OF BCDVA	13.3% (2)	60.9% (70)	88.9% (56)	21.4% (3)	54.8% (57)	78.2% (43)
≥4 LINES GAIN OF BCDVA	0.0% (0)	39.1% (45)	66.7% (42)	7.1% (1)	37.5% (39)	61.8% (34)
≥5 LINES GAIN OF BCDVA	0.0% (0)	13.9% (16)	52.4% (33)	0.0% (0)	13.5% (14)	34.5% (19)
≥2 LINES GAIN OF BCNVA	80.0% (12)	80.9% (93)	87.1% (54)	64.3% (9)	77.9% (81)	80.0% (44)
≥3 LINES GAIN OF BCNVA	60.0% (9)	64.3% (74)	75.8% (47)	50.0% (7)	58.7% (61)	74.5% (41)
≥4 LINES GAIN OF BCNVA	40.0% (6)	43.5% (50)	61.3% (38)	28.6% (4)	41.3% (43)	52.7% (29)
≥5 LINES GAIN OF BCNVA	26.7% (4)	23.5% (27)	38.7% (24)	14.3% (2)	21.2% (22)	32.7% (18)

TABLE 7.2
SUMMARY OF IMPROVEMENT IN BCDVA
IMT-IMPLANTED EYES
STRATIFIED BY PREOP BCDVA
IMT-002-LTM

≥2 LINES GAIN OF BCDVA	37.5% (3)	66.0% (31)	89.5% (17)	40.0% (4)	65.5% (38)	82.1% (23)
≥3 LINES GAIN OF BCDVA	12.5% (1)	46.8% (22)	84.2% (16)	10.0% (1)	51.7% (30)	53.6% (15)
≥4 LINES GAIN OF BCDVA	12.5% (1)	31.9% (15)	52.6% (10)	10.0% (1)	25.9% (15)	39.3% (11)
≥5 LINES GAIN OF BCDVA	0.0% (0)	12.8% (6)	26.3% (5)	0.0% (0)	5.2% (3)	21.4% (6)
MEAN BCDVA 95% CI	**20/96** (20/128, 20/72)	**20/146** (20/167, 20/127)	**20/225** (20/279, 20/181)	**20/126** (20/199, 20/79)	**20/152** (20/174, 20/134)	**20/240** (20/292, 20/197)

Data after IMT explant was excluded.

TABLE 7.3
BCDVA STRATIFIED BY PREOP BCDVA
IMT-IMPLANTED EYES
IMT-002-LTM

36-Month Cohort	N = 8	N = 47	N = 19	N = 74
Preop BCDVA	**20/122** (20/148, 20/101)	**20/264** (20/286, 20/243)	**20/551** (20/602, 20/504)	**20/293** (20/330, 20/261)
36-Month BCDVA	**20/96** (20/128, 20/72)	**20/146** (20/167, 20/127)	**20/225** (20/279, 20/181)	**20/156** (20/175, 20/139)
48-Month Cohort	N = 10	N = 58	N = 28	N = 96
Preop BCDVA	**20/123** (20/143, 20/107)	**20/266** (20/286, 20/247)	**20/542** (20/579, 20/507)	**20/302** (20/334, 20/273)
48-Month BCDVA	**20/126** (20/199, 20/79)	**20/152** (20/174, 20/134)	**20/240** (20/292, 20/197)	**20/171** (20/191, 20/152)

Data after IMT explant was excluded.

TABLE 8
SUMMARY OF IMPROVEMENT IN VISUAL ACUITY
IMT-IMPLANTED EYES
STRATIFIED BY IMT MODEL
IMT-002

≥2 LINES GAIN OF BCDVA *OR* BCNVA	89.0% (97)	91.6% (76)	84.5% (82)	88.2% (67)
≥2 LINES GAIN OF BCDVA *AND* BCNVA	67.0% (73)	81.9% (68)	60.8% (59)	72.4% (55)
≥3 LINES GAIN OF BCDVA *AND* BCNVA	46.8% (51)	61.4% (51)	40.2% (39)	60.5% (46)
≥2 LINES GAIN OF BCDVA	74.5% (82)	88.0% (73)	69.1% (67)	81.6% (62)
≥3 LINES GAIN OF BCDVA	60.0% (66)	74.7% (62)	52.6% (51)	68.4% (52)
≥4 LINES GAIN OF BCDVA	36.4% (40)	56.6% (47)	36.1% (35)	51.3% (39)
≥5 LINES GAIN OF BCDVA	16.4% (18)	37.3% (31)	14.4% (14)	25.0% (19)
≥2 LINES GAIN OF BCNVA	80.7% (88)	85.5% (71)	76.3% (74)	78.9% (60)
≥3 LINES GAIN OF BCNVA	64.2% (70)	72.3% (60)	58.8% (57)	68.4% (52)
≥4 LINES GAIN OF BCNVA	43.1% (47)	56.6% (47)	41.2% (40)	47.4% (36)
≥5 LINES GAIN OF BCNVA	28.4% (31)	28.9% (24)	20.6% (20)	28.9% (22)

TABLE 9.1
CUMULATIVE BCDVA IMPROVEMENT FROM BASELINE
IMT-IMPLANTED EYES
IMT-002-LTM

N	74	96
Gain ≥ 3 lines	39 (53%)	46 (48%)
Gain ≥ 2 lines	51 (69%)	65 (68%)
Gain ≥ 1 lines	63 (85%)	75 (78%)

Records after IMT explant excluded

TABLE 9.2
MEAN BCDVA AT BASELINE, 36 MONTHS AND 48 MONTHS
IMT-IMPLANTED EYES
IMT-002 AND IMT-002-LTM

N	206	74	96
Mean 95% CI	**20/312** (20/334, 20/291)	**20/156** (20/175, 20/139)	**20/171** (20/191, 20/152)

Records after IMT explant excluded

TABLE 9.3
BEST CORRECTED DISTANCE VISUAL ACUITY (BCDVA)
IMT-IMPLANTED SUBJECTS INCLUDING AVAILABLE PARTIAL DATA FOR 54 AND 60 MONTHS
IMT-002 AND IMT-002-LTM

	IMT-Implanted Eyes															
Mean BCDVA (SD logMAR) Median	206	**20/312** (0.214) 20/317	193	**20/141** (0.228) 20/138	173	**20/149** (0.225) 20/152	74	**20/156** (0.221) 20/145	104	**20/174** (0.275) 20/159	96	**20/171** (0.244) 20/174	34	**20/171** (0.254) 20/166	6	**20/103** (0.328) 20/87

N = number of eyes returned for the visit with non-missing BCDVA.

TABLE 10
CHANGE IN BCDVA FROM BASELINE
FOLLOWING CATARACT REMOVAL AND IOL IMPLANTATION

N	**22**	9	6	37	**193**
Mean Lines Change in BCDVA (95% CI)	**0.35 (-0.60, 1.29)**	0.38 (-0.32, 1.07)	-0.20 (-2.24, 1.84)	0.26 (-0.35, 0.88)	**3.43 (3.10, 3.76)**

TABLE 11
CHANGE IN BCDVA FROM PRE-IOL IMPLANT
IMT EYES WITH IMT REMOVAL POSTOPERATIVELY & WITH IOL IMPLANT

N	6
Mean Lines Change in BCDVA (95% CI)	-2.2 (-3.30, -1.10)

TABLE 12.1
BCDVA INCREASE ≥ 2 OR ≥ 3 LINES
FELLOW EYES WITH CATARACT SURGERY AND IOL IMPLANT DURING STUDY
AND CORRESPONDING IMT-IMPLANTED EYES

[redacted]			
≥ 2 Lines	20 (90.9%)	6 (27.3%)	0.0001
≥ 3 Lines	16 (72.7%)	2 (9.1%)	0.0005

BCDVA Change in Fellow Eyes = Change from study baseline to the last available BCDVA
BCDVA Change in IMT Eyes = Change from study baseline BCDVA to 12-Month BCDVA

TABLE 12.2
BCDVA LINE CHANGE FROM BASELINE
EXTERNAL TELESCOPE AND IMT EYES AT 12-MONTHS
IMT-002

2.2X						
2.2X External Telescope	110	2.9 Lines	2.7 Lines, 3.1 Lines	2.8 Lines	<.0001	
12-Month 2.2X IMT	110	3.0 Lines	2.5 Lines, 3.5 Lines	3.4 Lines	0.1984	
Paired Difference	110	0.1 Lines	-0.4 Lines, 0.5 Lines	0.4 Lines		0.2142
3.0X						
3.0X External Telescope	83	3.6 Lines	3.3 Lines, 3.8 Lines	3.4 Lines	<.0001	
12-Month 3.0X IMT	83	4.0 Lines	3.6 Lines, 4.4 Lines	4.4 Lines	0.3727	
Paired Difference	83	0.5 Lines	0.1 Lines, 0.9 Lines	0.6 Lines		0.0055

N = number of eyes with 12-month data.

TABLE 13.1
MEAN SCORE CHANGE AT 12 MONTHS
NEI 25-ITEM VISUAL FUNCTION QUESTIONNAIRE (VFQ-25)
IMT-002

[redacted]				
General Vision	35.3 (33.2, 37.4)	50.3 (47.5, 53.1)	14.1 (11.0, 17.2)	<.0001
Near Activities	25.5 (23.6, 27.5)	37.3 (34.6, 40.0)	11.2 (8.4, 13.9)	<.0001
Distance Activities	34.3 (31.7, 36.8)	42.4 (39.1, 45.7)	7.9 (4.4, 11.4)	<.0001
Color Vision	63.9 (60.1, 67.8)	67.7 (63.9, 71.5)	3.4 (-0.2, 6.9)	NS
Social Functioning	49.3 (46.0, 52.7)	58.3 (55.1, 61.4)	8.6 (4.8, 12.4)	<.0001
Mental Health	39.8 (36.5, 43.1)	49.3 (45.5, 53.0)	9.3 (6.1, 12.5)	<.0001
Role Difficulties	37.4 (34.2, 40.7)	44.8 (41.0, 48.5)	7.3 (3.5, 11.0)	0.0002
Dependency	37.7 (34.0, 41.4)	48.3 (44.4, 52.2)	10.0 (6.1, 13.9)	<.0001
Ocular Pain	88.2 (86.0, 90.4)	88.5 (86.1, 90.9)	0.6 (-2.1, 3.3)	NS
Driving	2.3 (1.0, 3.6)	1.9 (0.6, 3.2)	-0.5 (-1.6, 0.5)	NS
Peripheral Vision	67.6 (63.9, 71.3)	62.9 (59.7, 66.1)	-5.9 (-10.4, -1.5)	0.0091
Overall Composite[2]	44.0 (42.1, 45.8)	50.3 (48.2, 52.4)	6.0 (4.0, 8.1)	<.0001
General Health	64.0 (60.8, 67.1)	59.7 (56.4, 63.0)	-5.1 (-8.1, -2.0)	0.0015

VFQ-25 scores on a scale of 0 (low) to 100 (maximum).
95%CI = 95% Confidence Interval.
1 P-value for testing that mean VFQ change = 0.
2 General Health not included in Overall Composite per NEI VFQ-25 scoring guidelines.

TABLE 13.2
VFQ-25 SCORE PERCENT OF PATIENTS ACHIEVING
A CLINICALLY MEANINGFUL 5 POINT CHANGE IN COMPOSITE SCORE
IMT-IMPLANTED EYES
IMT-002

Subjects with increase ≥ 5 points	51.8%	100/193
Subjects with decrease ≥ 5 points	22.3%	43/193

TABLE 13.3
CHANGE IN VFQ-25 COMPOSITE SCORE FROM BASELINE AT 12 MONTHS
STRATIFIED BY AGE
IMT-002

N	42	49	56	46
Mean (SD)	10.5	6.5	3.3	4.7
95% confidence interval for mean[1]	5.7, 15.3	2.4, 10.6	-0.4, 7.0	0.7, 8.8
Median	9.6	4.7	4.4	1.3
Range	-13.9, 45.1	-17.4, 58.3	-31.3, 48.5	-15.2, 56.3
Comparing VFQ Change from Baseline Among Sub-groups				
P-value of Kruskal-Wallis Test	0.1364			
n & % of eyes with increase ≥5 points	27/42 (64%)	24/49 (49%)	27/56 (48%)	22/46 (48%)
95% confidence interval for %[1]	48%, 78%	34%, 64%	35%, 62%	33%, 63%
Comparing %s Among Sub-groups				
Fisher's Exact p-value	0.3415			

N = number of treated eyes returned for the 12-month visit with a non-missing change in VFQ-25 assessment and age at implant Records after IMT removal were excluded and reported separately.

[1] Normal distribution approach was used for mean. CI for % was calculated based on Clopper Pearson method.

TABLE 13.4
CHANGE IN VFQ-25 COMPOSITE SCORE FROM BASELINE AT 12 MONTHS
STRATIFIED BY GENDER
IMT-002

N	93	100
Mean (SD)	8.4	3.8
95% confidence interval for mean[1]	5.4, 11.5	1.1, 6.5
Median	6.9	3.2
Range	-22.5, 56.3	-31.3, 58.3
Comparing VFQ Change from Baseline Between Sub-groups		
P-value of Wilcoxon Test	***0.0267***	
n & % of eyes with increase ≥5 points	53/93 (57%)	47/100 (47%)
95% confidence interval for %[1]	46%, 67%	37%, 57%
Comparing Percentages Between Sub-groups		
Fisher's Exact p-value	0.1950	

N = number of treated eyes returned for the 12-month visit with a non-missing change in VFQ-25 assessment and gender Records after IMT removal were excluded and reported separately.

[1] Normal distribution approach was used for mean. CI for % was calculated based on Clopper Pearson method.

TABLE 13.5
CHANGE IN VFQ-25 COMPOSITE SCORE FROM BASELINE AT 12 MONTHS STRATIFIED BY IMT MODEL
IMT-002

N	110	83
Mean (SD)	5.2	7.1
95% confidence interval for mean[1]	2.8, 7.6	3.6, 10.7
Median	4.7	5.6
Range	-22.5, 56.3	-31.3, 58.3
Comparing VFQ Change from Baseline Between Sub-groups		
P-value of Wilcoxon Test	0.5288	
n & % of eyes with increase ≥5 points	55/110 (50%)	45/83 (54%)
95% confidence interval for %[1]	40%, 60%	43%, 65%
Comparing Percentages Between Sub-groups		
Fisher's Exact p-value	0.6626	

N = number of treated eyes returned for the 12-month visit with a non-missing change in VFQ-25 assessment and IMT Model Records after IMT removal were excluded and reported separately.

[1] Normal distribution approach was used for mean. CI for % was calculated based on Clopper Pearson method.

TABLE 13.6
CHANGE IN VFQ-25 COMPOSITE SCORE FROM BASELINE AT 12 MONTHS STRATIFIED BY PREOPERATIVE BCDVA
IMT-002

[redacted]			
N	20	110	63
Mean (SD)	1.3	7.9	4.3
95% confidence interval for mean[1]	-4.5, 7.0	4.8, 10.9	1.7, 7.0
Median	-0.9	5.4	7.0
Range	-22.5, 26.9	-17.6, 58.3	-31.3, 19.9
Comparing VFQ Change from Baseline Among Sub-groups			
P-value of Kruskal-Wallis Test	0.2514		
n & % of eyes with increase ≥5 points	7/20 (35%)	57/110 (52%)	36/63 (57%)
95% confidence interval for %[1]	15%, 59%	42%, 61%	44%, 70%
Comparing %s Among Sub-groups			
Fisher's Exact p-value	0.2383		

N = number of treated eyes returned for the 12-month visit with a non-missing change in VFQ-25 assessment and preoperative BCDVA Records after IMT removal were excluded and reported separately.

[1] Normal distribution approach was used for mean. CI for % was calculated based on Clopper Pearson method.

TABLE 13.7
CHANGE IN VFQ-25 COMPOSITE SCORE FROM BASELINE AT 12 MONTHS STRATIFIED BY 12-MONTH VISUAL ACUITY IMPROVEMENT
IMT-002

[redacted]			
N	141	32	20
Mean (SD)	6.7	6.0	1.5
95% confidence interval for mean[1]	4.2, 9.1	1.6, 10.4	-5.1, 8.2
Median	6.6	5.6	-0.5
Range	-31.3, 58.3	-14.2, 43.1	-17.6, 35.4
Comparing VFQ Change from Baseline Among Sub-groups			
P-value of Kruskal-Wallis Test	0.2677		
n & % of eyes with increase ≥5 points	77/141 (55%)	17/32 (53%)	6/20 (30%)
95% confidence interval for %[1]	46%, 63%	35%, 71%	12%, 54%
Comparing %s Among Sub-groups			
Fisher's Exact p-value	0.1242		

N = number of treated eyes returned for the 12-month visit with a non-missing change in VFQ-25 assessment and 12-Month visual acuity Records after IMT removal were excluded and reported separately.

[1] Normal distribution approach was used for mean. CI for % was calculated based on Clopper Pearson method.

TABLE 14
CHANGE FROM PREOPERATIVE IN ADL SCORES
IMT-IMPLANTED EYES
IMT-002

Mobility	53.8 (51.1, 56.4)	66.0 (63.1, 68.9)	12.0 (8.7, 15.2)	<.0001
Distance Activities	43.7 (41.6, 45.8)	57.3 (54.4, 60.2)	13.4 (10.4, 16.3)	<.0001
Near Activities	30.9 (28.3, 33.5)	48.5 (45.3, 51.7)	17.0 (13.8, 20.2)	<.0001
Total	41.4 (39.2, 43.5)	55.9 (53.1, 58.6)	14.2 (11.4, 16.9)	<.0001

95%CI = 95% Confidence Interval.

1 P-value for testing that mean ADL change = 0.

TABLE 15
PRESERVATION OF BCVA
OPERATED EYES (N = 217)
IMT-002

N=	211	206	204	195	194	181	175
Overall Safety Rate >2 lines loss of BCDVA and no change/loss of BCNVA or >2 lines loss of BCNVA and no change/loss of BCDVA	17 (8.1%) 5.2%, 11.8%	6 (2.9%) 1.3%, 5.7%	10 (4.9%) 2.7%, 8.2%	9 (4.6%) 2.4%, 7.9%	10 (5.2%) 2.8%, 8.6%	9 (5.0%) 2.6%, 8.5%	11 (6.3%) 3.6%, 10.2%
Binomial exact p-value for Ha: safety rate < 10%	0.2071	<.0001	0.0064	0.0048	0.0114	0.0111	0.0587
>2 lines loss of BCDVA and BCNVA	6 (2.8%) 1.2%, 5.5%	2 (1.0%) 0.2%, 3.0%	2 (1.0%) 0.2%, 3.1%	4 (2.1%) 0.7%, 4.6%	2 (1.0%) 0.2%, 3.2%	2 (1.1%) 0.2%, 3.4%	3 (1.7%) 0.5%, 4.4%
>2 lines loss of BCDVA and no change of BCNVA	2 (0.9%) 0.2%, 3.0%	0 (0.0%) 0.0%, 1.4%	1 (0.5%) 0.0%, 2.3%	2 (1.0%) 0.2%, 3.2%	0 (0.0%) 0.0%, 1.5%	1 (0.6%) 0.0%, 2.6%	0 (0.0%) 0.0%, 1.7%
>2 lines loss of BCNVA and no change of BCDVA	9 (4.3%) 2.2%, 7.3%	4 (1.9%) 0.7%, 4.4%	7 (3.4%) 1.6%, 6.3%	3 (1.5%) 0.4%, 3.9%	8 (4.1%) 2.1%, 7.3%	6 (3.3%) 1.5%, 6.4%	8 (4.6%) 2.3%, 8.1%

Table 16.1
LOSS OF BEST CORRECTED DISTANCE VISUAL ACUITY (BCDVA)
IMT-IMPLANTED EYES
IMT-002

Loss > 2 lines	3	1.5%	6	3.1%	4	2.1%	4	2.2%	3	1.7%
One-sided upper 95% CL[1]	3.8%		6.0%		4.7%		5.0%		4.4%	
N[2]	201		195		193		179		173	

1 CL = exact confidence limit calculated based on Clopper PEarson method.
2 N = number of eyes with available data.

Table 16.2
LOSS OF BEST CORRECTED DISTANCE VISUAL ACUITY (BCDVA)
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002

[redacted]										
Loss > 2 lines	14	7.0%	14	7.2%	15	7.8%	18	10.0%	16	9.2%
One-sided upper 95% CL[1]	10.7%		11.0%		11.7%		14.5%		13.6%	
N[2]	200		195		193		180		174	

1 CL = exact confidence limit calculated based on Clopper PEarson method.
2 N = number of eyes with available data.

Table 17.1
LOSS OF BEST CORRECTED DISTANCE VISUAL ACUITY (BCDVA)
IMT-IMPLANTED EYES
IMT-002-LTM

Loss > 2 lines	2	2.7%	9	8.7%	4	4.2%	2	5.9%	0	0.0%
One-sided upper 95% CL[1]	8.3%		14.6%		9.3%		17.4%		39.3%	
N[2]	74		104		96		34		6	

1 CL = exact confidence limit calculated based on Clopper PEarson method.
2 N = number of eyes with available data.

Table 17.2
LOSS OF BEST CORRECTED DISTANCE VISUAL ACUITY (BCDVA)
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002-LTM

Loss > 2 lines	10	13.5%	14	13.6%	11	11.5%	5	14.7%	1	16.7%
One-sided upper 95% CL[1]	21.8%		20.4%		18.3%		28.5%		58.2%	
N[2]	74		103		96		34		6	

1 CL = exact confidence limit calculated based on Clopper PEarson method.
2 N = number of eyes with available data.

TABLE 18.1
ECD, PERCENT CHANGE IN ECD, AND ANNUALIZED PERCENT CHANGE IN ECD
IMT-IMPLANTED EYES
IMT-002 AND IMT-002-LTM

N	206	198	186	171	70	88
Mean	2496	1937	1871	1808	1713	1620
95% CI	2447, 2545	1856, 2018	1786, 1957	1718, 1898	1576, 1850	1499, 1741
N		186	169	65	51	
Mean		-25%	-2%	-7%	-2%	
95% CI		-28%, -22%	-4%, 1%	-12%, -2%	-6%, 1%	
N	198	85	88	86	51	
Mean	-22%	-12%	-7%	-6%	-2%	
95% CI	-25%, -19%	-17%, -7%	-12%, -2%	-10%, -2%	-6%, 1%	
N		85	88	86	51	
Mean		-3%	-2%	-3%	-3%	
95% CI		-5%, -2%	-4%, -1%	-5%, -1%	-7%, 1%	

N = number of eyes with non-missing data.
Annualized: For each eye, ECD at the end of the interval minus ECD at the beginning of interval, divided by number of months between the interval, and multiplied by 12.

TABLE 18.2
ECD, PERCENT CHANGE IN ECD, AND PERCENT CHANGE IN ECD BETWEEN CONSECUTIVE VISITS
IMT-IMPLANTED EYES
IMT-002 AND IMT-002-LTM

N	206	193	198	190	186	180	171	70	101	88	60	17
Mean	2496	1995	1937	1891	1871	1878	1808	1713	1595	1620	1572	1616
95% CI	2447, 2545	1912, 2078	1856, 2018	1809, 1973	1786, 1957	1787, 1969	1718, 1898	1576, 1850	1481, 1709	1499, 1741	1431, 1713	1227, 2005
ECD < 750	0 (0%)	6 (3%)	8 (4%)	9 (5%)	9 (5%)	13 (7%)	12 (7%)	3 (4%)	9 (9%)	7 (8%)	5 (8%)	2 (12%)
N		193	198	190	186	180	171	70	101	88	60	17
Mean		-20%	-22%	-24%	-25%	-25%	-28%	-31%	-36%	-35%	-37%	-38%
95% CI		-23%, -17%	-25%, -19%	-27%, -21%	-28%, -22%	-28%, -22%	-31%, -24%	-36%, -26%	-40%, -32%	-40%, -31%	-43%, -32%	-51%, -24%
N		193	188	188	179	176	168	65	60	82	56	15
Mean		-20%	-3%	-2%	-1%	2%	-3%	-7%	-1%	4%	-5%	1%
95% CI		-23%, -17%	-5%, -1%	-5%, -0%	-4%, 1%	-1%, 5%	-5%, -1%	-12%, -2%	-6%, 5%	-1%, 9%	-8%, -2%	-6%, 7%
N						177	169	65	NA	51	58	16
Mean						-4%	-2%	-7%	NA	-2%	-2%	-2%
95% CI						-7%, -1%	-4%, 1%	-12%, -2%	NA	-6%, 1%	-5%, 2%	-8%, 4%

N = number of eyes with non-missing data.

TABLE 18.3
ECD AND PERCENT CHANGE IN ECD
OPERATED EYES
IMT-002

N	216	198	200	190	190	182	173
Mean	2498	2001	1936	1891	1881	1887	1813
95% CI	2451, 2546	1919, 2082	1855, 2016	1809, 1973	1795, 1967	1796, 1978	1723, 1903
Mean		-20%	-22%	-24%	-25%	-25%	-27%
95% CI		-23%, -17%	-25%, -20%	-27%, -21%	-28%, -22%	-28%, -21%	-31%, -24%
ECD < 750	0 (0%)	6 (3%)	8 (4%)	9 (5%)	9 (5%)	13 (7%)	12 (7%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.4
ECD AND PERCENT CHANGE IN ECD
24-MONTH CONSISTENT COHORT
OPERATED EYES
IMT-002

N	154	154	154	154	154	154	154
Mean	2501	2015	1940	1888	1849	1864	1801
95% CI	2443, 2558	1927, 2103	1851, 2029	1798, 1977	1757, 1941	1768, 1959	1706, 1895
Mean		-19%	-22%	-24%	-26%	-25%	-28%
95% CI		-22%, -16%	-25%, -19%	-28%, -21%	-29%, -22%	-29%, -22%	-31%, -24%
ECD < 750	0 (0%)	3 (2%)	5 (3%)	8 (5%)	8 (5%)	11 (7%)	11 (7%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.5
ECD AND PERCENT CHANGE IN ECD
OPERATED EYES
IMT-002-LTM

N	129	119	121	119	122	119	116	79	110	94
Mean	2507	1950	1865	1868	1810	1814	1766	1736	1612	1611
95% CI	2443, 2570	1842, 2059	1756, 1975	1760, 1976	1699, 1920	1700, 1927	1652, 1881	1610, 1863	1505, 1720	1495, 1727
Mean		-22%	-25%	-25%	-28%	-27%	-29%	-30%	-35%	-36%
95% CI		-26%, -18%	-29%, -21%	-29%, -22%	-32%, -23%	-32%, -23%	-34%, -25%	-35%, -26%	-40%, -31%	-40%, -32%
ECD < 750	0 (0%)	4 (3%)	8 (7%)	7 (6%)	8 (7%)	11 (9%)	11 (9%)	3 (4%)	9 (8%)	7 (7%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.6
ECD AND PERCENT CHANGE IN ECD
48-MONTH CONSISTENT COHORT
OPERATED EYES
IMT-002-LTM

N	43	43	43	43	43	43	43	43	43	43
Mean	2525	2073	1993	1952	1866	1906	1900	1758	1702	1710
95% CI	2407, 2644	1900, 2246	1811, 2175	1777, 2127	1698, 2035	1743, 2069	1730, 2070	1584, 1933	1526, 1879	1532, 1887
Mean		-18%	-21%	-23%	-26%	-24%	-24%	-30%	-33%	-32%
95% CI		-24%, -11%	-27%, -15%	-29%, -17%	-32%, -20%	-30%, -19%	-31%, -18%	-36%, -24%	-39%, -26%	-39%, -26%
ECD < 750	0 (0%)	1 (2%)	3 (7%)	3 (7%)	3 (7%)	2 (5%)	3 (7%)	1 (2%)	3 (7%)	4 (9%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.7
ECD AND PERCENT CHANGE IN ECD
IMT-IMPLANTED EYES
IMT-002

N	206	193	198	190	186	180	171
Mean	2496	1995	1937	1891	1871	1878	1808
95% CI	2447, 2545	1912, 2078	1856, 2018	1809, 1973	1786, 1957	1787, 1969	1718, 1898
Mean		-20%	-22%	-24%	-25%	-25%	-28%
95% CI		-23%, -17%	-25%, -19%	-27%, -21%	-28%, -22%	-28%, -22%	-31%, -24%
ECD < 750	0 (0%)	6 (3%)	8 (4%)	9 (5%)	9 (5%)	13 (7%)	12 (7%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.8
ECD AND PERCENT CHANGE IN ECD
24-MONTH CONSISTENT COHORT
IMT-IMPLANTED EYES
IMT-002

N	154	154	154	154	154	154	154
Mean	2501	2015	1940	1888	1849	1864	1801
95% CI	2443, 2558	1927, 2103	1851, 2029	1798, 1977	1757, 1941	1768, 1959	1706, 1895
Mean		-19%	-22%	-24%	-26%	-25%	-28%
95% CI		-22%, -16%	-25%, -19%	-28%, -21%	-29%, -22%	-29%, -22%	-31%, -24%
ECD < 750	0 (0%)	3 (2%)	5 (3%)	8 (5%)	8 (5%)	11 (7%)	11 (7%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.9
ECD AND PERCENT CHANGE IN ECD
IMT-IMPLANTED EYES
IMT-002-LTM

N	123	116	120	119	119	118	114	70	101	88
Mean	2500	1937	1865	1868	1786	1802	1758	1713	1595	1620
95% CI	2434, 2566	1827, 2047	1754, 1975	1760, 1976	1677, 1895	1690, 1915	1644, 1873	1576, 1850	1481, 1709	1499, 1741
Mean		-22%	-25%	-25%	-29%	-28%	-30%	-31%	-36%	-35%
95% CI		-26%, -18%	-29%, -21%	-29%, -22%	-33%, -24%	-32%, -24%	-34%, -25%	-36%, -26%	-40%, -32%	-40%, -31%
ECD < 750	0 (0%)	4 (3%)	8 (7%)	7 (6%)	8 (7%)	11 (9%)	11 (10%)	3 (4%)	9 (9%)	7 (8%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.10
ECD AND PERCENT CHANGE IN ECD
48-MONTH CONSISTENT COHORT
IMT-IMPLANTED EYES
IMT-002-LTM

N	43	43	43	43	43	43	43	43	43	43
Mean	2525	2073	1993	1952	1866	1906	1900	1758	1702	1710
95% CI	2407, 2644	1900, 2246	1811, 2175	1777, 2127	1698, 2035	1743, 2069	1730, 2070	1584, 1933	1526, 1879	1532, 1887
Mean		-18%	-21%	-23%	-26%	-24%	-24%	-30%	-33%	-32%
95% CI		-24%, -11%	-27%, -15%	-29%, -17%	-32%, -20%	-30%, -19%	-31%, -18%	-36%, -24%	-39%, -26%	-39%, -26%
ECD < 750	0 (0%)	1 (2%)	3 (7%)	3 (7%)	3 (7%)	2 (5%)	3 (7%)	1 (2%)	3 (7%)	4 (9%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.11
ECD STRATIFIED BY GUTTATA
IMT-IMPLANTED EYES
IMT-002

N	26	26	26	25	24	22	21
Mean	2419	1788	1719	1651	1652	1630	1523
95% CI	2242, 2596	1520, 2056	1476, 1963	1398, 1904	1365, 1938	1328, 1931	1248, 1798
ECD < 750	0 (0%)	1 (4%)	1 (4%)	2 (8%)	2 (8%)	2 (9%)	2 (10%)
N	180	167	172	165	162	158	150
Mean	2507	2027	1970	1927	1904	1913	1848
95% CI	2457, 2557	1940, 2114	1884, 2056	1841, 2013	1815, 1993	1818, 2007	1753, 1942
ECD < 750	0 (0%)	5 (3%)	7 (4%)	7 (4%)	7 (4%)	11 (7%)	10 (7%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.12
PERCENT CHANGE IN ECD STRATIFIED BY GUTTATA
IMT-IMPLANTED EYES
IMT-002

N	26	26	25	24	22	21
Mean	-26%	-29%	-32%	-32%	-33%	-36%
95% CI	-36%, -16%	-38%, -20%	-41%, -23%	-42%, -22%	-44%, -23%	-47%, -25%
N	167	172	165	162	158	150
Mean	-19%	-21%	-23%	-24%	-24%	-26%
95% CI	-22%, -16%	-24%, -18%	-26%, -20%	-28%, -21%	-28%, -21%	-30%, -23%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.13
ECD STRATIFIED BY GUTTATA
IMT-IMPLANTED EYES
IMT-002-LTM

N	16	16	16	16	16	15	15	7	14	12
Mean	2415	1672	1678	1607	1535	1450	1464	1583	1285	1303
95% CI	2169, 2660	1322, 2023	1342, 2014	1270, 1943	1192, 1879	1110, 1790	1111, 1817	1166, 2001	959, 1610	947, 1659
ECD < 750	0 (0%)	1 (6%)	1 (6%)	1 (6%)	2 (13%)	2 (13%)	2 (13%)	0 (0%)	2 (14%)	1 (8%)
N	107	100	104	103	103	103	99	63	87	76
Mean	2513	1979	1894	1909	1825	1854	1803	1728	1645	1670
95% CI	2445, 2580	1864, 2094	1776, 2011	1795, 2022	1710, 1940	1736, 1971	1682, 1923	1580, 1875	1524, 1766	1542, 1798
ECD < 750	0 (0%)	3 (3%)	7 (7%)	6 (6%)	6 (6%)	9 (9%)	9 (9%)	3 (5%)	7 (8%)	6 (8%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.14
PERCENT CHANGE IN ECD STRATIFIED BY GUTTATA
IMT-IMPLANTED EYES
IMT-002-LTM

N	16	16	16	16	15	15	7	14	12
Mean	-30%	-30%	-33%	-36%	-39%	-38%	-34%	-47%	-44%
95% CI	-44%, -15%	-43%, -16%	-46%, -21%	-49%, -23%	-52%, -26%	-52%, -23%	-47%, -20%	-60%, -34%	-57%, -31%
N	100	104	103	103	103	99	63	87	76
Mean	-21%	-25%	-24%	-27%	-26%	-28%	-31%	-34%	-34%
95% CI	-25%, -17%	-29%, -20%	-28%, -20%	-32%, -23%	-31%, -22%	-33%, -24%	-36%, -26%	-39%, -30%	-39%, -29%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.15
ECD AND PERCENT CHANGE IN ECD
48-MONTH CONSISTENT COHORT OF NON-GUTTATA IMT-IMPLANTED EYES
IMT-002-LTM

N	39	39	39	39	39	39	39	39	39	39
Mean	2556	2100	2015	1975	1889	1933	1918	1788	1738	1740
95% CI	2444, 2667	1911, 2289	1815, 2214	1785, 2165	1705, 2073	1757, 2108	1733, 2104	1600, 1976	1553, 1923	1552, 1928
Mean		-18%	-21%	-23%	-26%	-24%	-25%	-30%	-32%	-32%
95% CI		-24%, -11%	-28%, -15%	-30%, -16%	-33%, -19%	-31%, -18%	-32%, -18%	-37%, -23%	-39%, -25%	-39%, -25%
ECD < 750	0 (0%)	1 (3%)	3 (8%)	3 (8%)	3 (8%)	2 (5%)	3 (8%)	1 (3%)	3 (8%)	4 (10%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.16
ECD STRATIFIED BY ACD
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002

N	68	65	65	62	59	58	55
Mean	2463	1944	1844	1859	1849	1874	1745
95% CI	2376, 2549	1801, 2088	1690, 1999	1708, 2011	1682, 2017	1699, 2049	1572, 1917
ECD < 750	0 (0%)	3 (5%)	5 (8%)	3 (5%)	3 (5%)	6 (10%)	7 (13%)
N	112	102	107	103	103	100	95
Mean	2534	2080	2046	1968	1935	1935	1907
95% CI	2473, 2596	1970, 2189	1945, 2146	1864, 2072	1831, 2039	1823, 2048	1795, 2019
ECD < 750	0 (0%)	2 (2%)	2 (2%)	4 (4%)	4 (4%)	5 (5%)	3 (3%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.17
PERCENT CHANGE IN ECD STRATIFIED BY ACD
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002

N	65	65	62	59	58	55
Mean	-22%	-25%	-25%	-25%	-25%	-29%
95% CI	-26%, -17%	-31%, -20%	-30%, -20%	-31%, -20%	-31%, -19%	-35%, -23%
N	102	107	103	103	100	95
Mean	-18%	-19%	-22%	-24%	-24%	-25%
95% CI	-22%, -14%	-23%, -15%	-26%, -18%	-28%, -20%	-28%, -20%	-29%, -21%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.18
ECD STRATIFIED BY ACD
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002-LTM

N	44	41	42	42	42	41	41	27	37	31
Mean	2421	1896	1706	1766	1701	1679	1590	1573	1477	1621
95% CI	2300, 2542	1711, 2081	1504, 1908	1571, 1960	1496, 1907	1475, 1883	1389, 1791	1329, 1817	1290, 1664	1400, 1843
ECD < 750	0 (0%)	2 (5%)	5 (12%)	3 (7%)	3 (7%)	6 (15%)	7 (17%)	2 (7%)	4 (11%)	2 (6%)
N	63	59	62	61	61	62	58	36	50	45
Mean	2577	2037	2020	2007	1910	1969	1953	1843	1769	1704
95% CI	2500, 2653	1887, 2187	1882, 2158	1871, 2142	1776, 2044	1831, 2107	1812, 2094	1659, 2027	1614, 1925	1544, 1864
ECD < 750	0 (0%)	1 (2%)	2 (3%)	3 (5%)	3 (5%)	3 (5%)	2 (3%)	1 (3%)	3 (6%)	4 (9%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.19
PERCENT CHANGE IN ECD STRATIFIED BY ACD
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002-LTM

N	41	42	42	42	41	41	27	37	31
Mean	-22%	-30%	-28%	-30%	-31%	-34%	-34%	-40%	-35%
95% CI	-29%, -16%	-37%, -23%	-34%, -21%	-38%, -23%	-38%, -24%	-42%, -27%	-43%, -25%	-47%, -34%	-43%, -27%
N	59	62	61	61	62	58	36	50	45
Mean	-21%	-21%	-22%	-25%	-23%	-24%	-28%	-30%	-33%
95% CI	-26%, -15%	-26%, -16%	-27%, -17%	-31%, -20%	-29%, -18%	-30%, -19%	-35%, -22%	-36%, -24%	-39%, -27%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.20
ECD AND PERCENT CHANGE IN ECD
48-MONTH CONSISTENT COHORT OF NON-GUTTATA IMT-IMPLANTED EYES
WITH ACD ≥ 3.00 MM
IMT-002-LTM

N	22	22	22	22	22	22	22	22	22	22
Mean	2622	2191	2110	2030	1903	1964	1997	1877	1830	1803
95% CI	2484, 2760	1959, 2423	1857, 2364	1781, 2280	1673, 2133	1727, 2202	1735, 2259	1616, 2139	1561, 2098	1534, 2072
Mean		-16%	-20%	-23%	-27%	-25%	-24%	-28%	-30%	-31%
95% CI		-25%, -8%	-29%, -11%	-32%, -13%	-36%, -19%	-34%, -16%	-34%, -14%	-38%, -19%	-40%, -20%	-41%, -22%
ECD < 750	0 (0%)	0 (0%)	1 (5%)	2 (9%)	2 (9%)	1 (5%)	2 (9%)	1 (5%)	2 (9%)	3 (14%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 18.21
ECD STRATIFIED BY SURGEON SPECIALTY
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002

N	127	121	119	119	115	113	109
Mean	2530	1986	1942	1895	1869	1884	1808
95% CI	2470, 2590	1881, 2091	1835, 2049	1789, 2001	1759, 1979	1766, 2002	1692, 1923
ECD < 750	0 (0%)	4 (3%)	5 (4%)	6 (5%)	6 (5%)	10 (9%)	9 (8%)
N	53	46	53	46	47	45	41
Mean	2452	2135	2033	2010	1989	1984	1954
95% CI	2360, 2544	1983, 2288	1887, 2178	1865, 2156	1838, 2139	1828, 2141	1791, 2117
ECD < 750	0 (0%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.22
PERCENT CHANGE IN ECD STRATIFIED BY SURGEON SPECIALTY
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002

N	121	119	119	115	113	109
Mean	-21%	-23%	-25%	-26%	-26%	-29%
95% CI	-25%, -18%	-27%, -19%	-29%, -22%	-30%, -23%	-30%, -21%	-33%, -25%
N	46	53	46	47	45	41
Mean	-13%	-17%	-18%	-19%	-20%	-20%
95% CI	-18%, -7%	-22%, -12%	-23%, -13%	-25%, -13%	-25%, -15%	-26%, -14%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.23
ECD STRATIFIED BY SURGEON SPECIALTY
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002-LTM

N	79	77	76	77	77	77	74	48	69	57
Mean	2551	1971	1902	1893	1821	1841	1778	1713	1621	1638
95% CI	2475, 2627	1836, 2105	1761, 2044	1757, 2030	1684, 1959	1699, 1983	1635, 1922	1529, 1897	1478, 1763	1481, 1794
ECD < 750	0 (0%)	2 (3%)	5 (7%)	5 (6%)	5 (6%)	8 (10%)	8 (11%)	3 (6%)	6 (9%)	5 (9%)
N	28	23	28	26	26	26	25	15	18	19
Mean	2404	2006	1870	1953	1836	1891	1876	1775	1738	1769
95% CI	2261, 2548	1766, 2247	1646, 2094	1749, 2158	1615, 2056	1678, 2105	1645, 2107	1543, 2007	1508, 1969	1548, 1990
ECD < 750	0 (0%)	1 (4%)	2 (7%)	1 (4%)	1 (4%)	1 (4%)	1 (4%)	0 (0%)	1 (6%)	1 (5%)

N = number of eyes returned for the visit with non-missing data.

TABLE 18.24
PERCENT CHANGE IN ECD STRATIFIED BY SURGEON SPECIALTY
NON-GUTTATA IMT-IMPLANTED EYES
IMT-002-LTM

N	77	76	77	77	77	74	48	69	57
Mean	-23%	-26%	-26%	-29%	-28%	-30%	-33%	-36%	-37%
95% CI	-27%, -18%	-31%, -21%	-31%, -21%	-34%, -24%	-33%, -23%	-36%, -25%	-39%, -26%	-41%, -31%	-43%, -32%
N	23	28	26	26	26	25	15	18	19
Mean	-16%	-22%	-19%	-23%	-22%	-22%	-24%	-27%	-25%
95% CI	-26%, -7%	-30%, -13%	-27%, -11%	-32%, -14%	-29%, -14%	-31%, -13%	-32%, -16%	-37%, -17%	-34%, -16%

N = number of eyes returned for the visit with non-missing data.

TABLE 18.25
ECD AND PERCENT CHANGE IN ECD
48-MONTH NON-GUTTATA CONSISTENT COHORT OF IMT-IMPLANTED EYES IMPLANTED BY CORNEA SPECIALIST
IMT-002-LTM

N	9	9	9	9	9	9	9	9	9	9
Mean	2370	2015	1993	2045	1973	1974	2048	1857	1764	1949
95% CI	2147, 2592	1637, 2394	1730, 2255	1778, 2311	1690, 2255	1711, 2237	1657, 2440	1576, 2138	1481, 2048	1667, 2231
Mean		-14%	-15%	-13%	-16%	-16%	-13%	-21%	-25%	-17%
95% CI		-30%, 2%	-26%, -5%	-23%, -4%	-28%, -4%	-26%, -6%	-30%, 4%	-32%, -10%	-36%, -14%	-28%, -6%
ECD < 750	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 19.1
PAIRED ANALYSIS BETWEEN 12 TO 48 MONTHS FOR THE DIFFERENCE IN ECD AND PERCENT CHANGE IN ECD BETWEEN IMT-IMPLANTED EYES AND FELLOW EYES
IMT-002 AND IMT-002-LTM

N	87	87	87
Mean	-158	-58	99
95% CI	-233, -82	-121, 5	4, 195
Mean	-6%	-3%	3%
95% CI	-11%, -1%	-6%, 0%	-2%, 9%

Difference = Fellow Eye - IMT-implanted Eye.
Subjects without ECD at 12 months or 48 Months were excluded.

TABLE 19.2
PAIRED ANALYSIS BETWEEN 12 TO 48 MONTHS FOR THE DIFFERENCE IN ECD AND PERCENT CHANGE IN ECD BETWEEN IMT-IMPLANTED EYES AND PHAKIC FELLOW EYES
IMT-002 AND IMT-002-LTM

N	56	56	56
Mean	-171	-9	162
95% CI	-259, -82	-58, 41	58, 265
Mean	-6%	-1%	5%
95% CI	-13%, 0%	-3%, 2%	-2%, 12%

Difference = Fellow Eye - IMT-implanted Eye.
Subjects without ECD at 12 months or 48 Months were excluded.
Phakic Fellow Eyes = Fellow eyes without IOL implants at the begining of study or during the study.

TABLE 19.3
PAIRED ANALYSIS BETWEEN 12 TO 48 MONTHS FOR THE DIFFERENCE IN ECD AND PERCENT CHANGE IN ECD BETWEEN IMT-IMPLANTED EYES AND PSEUDOPHAKIC FELLOW EYES
IMT-002 AND IMT-002-LTM

N	31	31	31
Mean	-134	-148	-14
95% CI	-281, 13	-302, 5	-208, 181
Mean	-7%	-7%	0%
95% CI	-15%, 1%	-14%, 1%	-9%, 10%

Difference = Fellow Eye - IMT-implanted Eye.
Subjects without ECD at 12 months or 48 Months were excluded.
Pseudophakic Fellow Eyes = Fellow eyes with IOL implants at the beginning of study or during the study.

TABLE 19.4
ECD AND PERCENT CHANGE IN ECD
FELLOW EYES OF OPERATED EYES
IMT-002 AND IMT-002-LTM

N	214	194	198	191	191	183	175	80	110	97
Mean	2436	2410	2404	2386	2386	2390	2358	2314	2283	2298
95% CI	2377, 2494	2350, 2471	2345, 2462	2322, 2449	2322, 2449	2320, 2460	2284, 2431	2204, 2425	2177, 2390	2189, 2407
Mean		-1%	-1%	-2%	-2%	-2%	-3%	-6%	-6%	-6%
95% CI		-2%, 0%	-2%, 0%	-3%, -1%	-3%, -0%	-3%, 0%	-5%, -1%	-8%, -3%	-9%, -3%	-9%, -3%
ECD < 750	1 (0%)	1 (1%)	0 (0%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	2 (2%)	2 (2%)

TABLE 19.5
ECD AND PERCENT CHANGE IN ECD
PHAKIC FELLOW EYES
IMT-002 AND IMT-002-LTM

N	151	136	138	133	130	124	119	56	73	65
Mean	2498	2481	2469	2460	2475	2486	2468	2393	2426	2452
95% CI	2439, 2557	2420, 2542	2409, 2528	2397, 2523	2413, 2538	2417, 2555	2399, 2537	2269, 2518	2321, 2530	2342, 2562
Mean		-0%	-1%	-1%	-1%	-1%	-1%	-4%	-2%	-2%
95% CI		-2%, 1%	-2%, 0%	-3%, -0%	-2%, 0%	-3%, 0%	-3%, 1%	-6%, -2%	-5%, 0%	-5%, 1%
ECD < 750	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (1%)	0 (0%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.
Phakic Fellow Eyes = Fellow eyes without IOL implants at the beginning of study or during the study.

TABLE 19.6
ECD AND PERCENT CHANGE IN ECD
PSEUDOPHAKIC FELLOW EYES
IMT-002 AND IMT-002-LTM

N	63	58	60	58	61	59	56	24	37	32
Mean	2286	2244	2254	2215	2195	2186	2124	2130	2002	1986
95% CI	2152, 2421	2108, 2380	2122, 2386	2071, 2359	2058, 2332	2034, 2338	1960, 2288	1907, 2352	1782, 2222	1773, 2200
Mean		-1%	-2%	-4%	-4%	-3%	-8%	-10%	-12%	-14%
95% CI		-3%, 1%	-4%, 1%	-6%, -1%	-7%, -0%	-7%, 2%	-12%, -4%	-16%, -4%	-18%, -6%	-20%, -8%
ECD < 750	1 (2%)	1 (2%)	0 (0%)	1 (2%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	1 (3%)	2 (6%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.
Phakic Fellow Eyes = Fellow eyes without IOL implants at the beginning of study or during the study.

TABLE 20.1
INCIDENCE OF RISK FACTORS IN EYES WITH MEAN ECD < 750 CELLS/MM^2
IMT-IMPLANTED EYES
(WITHIN-EYE MEAN FROM 6 TO 48 MONTHS)
IMT-002 AND IMT-002-LTM

Presence of Guttata	1/10 (10.0%)
Learning Curve (First 5 Eyes of Any Surgeon)	7/10 (70.0%)
ACD < 3.0 mm	6/10 (60.0%)
Surgeon Specialty (Non-cornea Specialist)	8/10 (80.0%)

TABLE 20.2
COMBINATION OF RISK FACTORS IN EYES WITH MEAN ECD < 750 CELLS/MM^2
IMT-IMPLANTED EYES
(WITHIN-EYE MEAN FROM 6 TO 48 MONTHS)
IMT-002 AND IMT-002-LTM

No Risk Factors	1/10 (10.0%)
One Risk factor	0/10 (0.0%)
Two Risk Factors	6/10 (60.0%)
Three Risk Factors	2/10 (20.0%)
Four Risk Factors	1/10 (10.0%)

TABLE 20.3
WITHIN-EYE MEAN ECD FOR 6 TO 48 MONTHS
PREDICTED PROBABILITY OF ECD < 750 CELLS/MM^2
IMT-IMPLANTED EYES
IMT-002 AND IMT-002-LTM

IMT Eyes	201	1830.6 (571.7)	10	5.0%	(2.4%, 9.0%)
Non-Guttata Eyes	175	1861.9 (562.3)	9	5.1%	(2.4%, 9.5%)
Non-Guttata Eyes with Surgical Order >5	72	1902.1 (545.1)	3	4.2%	(0.9%, 11.7%)
Non-Guttata Eyes with ACD ≥3	108	1924.9 (513.3)	4	3.7%	(1.0%, 9.2%)
Non-Guttata Eyes Implanted by Cornea Specialists	53	1963.4 (524.8)	2	3.8%	(0.5%, 13.0%)
Non-Guttata Eyes ACD ≥3 Implanted by Cornea Specialists	36	2008.5 (484.5)	1	2.8%	(0.1%, 14.5%)

1 Exact confidence interval per Clopper-Pearson method.

TABLE 20.4
WITHIN-EYE MEAN ECD FOR 6 TO 48 MONTHS
PREDICTED PROBABILITY OF ECD < 1000 CELLS/MM^2
IMT-IMPLANTED EYES
IMT-002 AND IMT-002-LTM

IMT Eyes	201	1830.6 (571.7)	22	10.9%	(7.0%, 16.1%)
Non-Guttata Eyes	175	1861.9 (562.3)	18	10.3%	(6.2%, 15.8%)
Non-Guttata Eyes with Surgical Order >5	72	1902.1 (545.1)	5	6.9%	(2.3%, 15.5%)
Non-Guttata Eyes with ACD ≥3	108	1924.9 (513.3)	7	6.5%	(2.6%, 12.9%)
Non-Guttata Eyes Implanted by Cornea Specialists	53	1963.4 (524.8)	3	5.7%	(1.2%, 15.7%)
Non-Guttata Eyes ACD ≥3 Implanted by Cornea Specialists	36	2008.5 (484.5)	1	2.8%	(0.1%, 14.5%)

1 Exact confidence interval per Clopper-Pearson method.

TABLE 20.5A
PERCENT OF HEXAGONALITY
IMT-IMPLANTED EYES
IMT-002

N	206	193	198	190	186	180	171
Mean	59.3	56.2	56.7	57.2	58.0	57.5	57.4
95% CI	58.5, 60.1	55.4, 57.0	55.8, 57.5	56.4, 58.1	57.2, 58.9	56.5, 58.6	56.4, 58.5
%Hex < 45 (stress)	4 (2%)	7 (4%)	5 (3%)	4 (2%)	4 (2%)	5 (3%)	7 (4%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5B
PERCENT OF HEXAGONALITY
IMT-IMPLANTED EYES
IMT-002-LTM

N	123	116	120	119	119	118	114	69	101	88
Mean	59.4	56.4	56.2	57.8	58.0	57.5	57.4	58.9	57.5	58.2
95% CI	58.3, 60.5	55.3, 57.4	55.2, 57.3	56.6, 59.0	56.8, 59.1	56.2, 58.9	56.2, 58.5	57.3, 60.5	56.0, 58.9	56.6, 59.9
%Hex < 45 (stress)	3 (2%)	6 (5%)	3 (3%)	4 (3%)	3 (3%)	4 (3%)	3 (3%)	1 (1%)	5 (5%)	4 (5%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5C
PERCENT OF HEXAGONALITY
48-MONTH CONSISTENT COHORT
IMT-IMPLANTED EYES
IMT-002-LTM

N	43	43	43	43	43	43	43	43	43	43
Mean	59.6	58.9	56.4	58.2	59.2	58.9	57.4	59.3	58.0	58.4
95% CI	57.8, 61.4	57.7, 60.0	54.7, 58.0	56.6, 59.8	57.3, 61.0	56.6, 61.3	55.7, 59.0	57.5, 61.1	56.0, 60.0	55.6, 61.1
%Hex < 45 (stress)	1 (2%)	0 (0%)	1 (2%)	0 (0%)	1 (2%)	1 (2%)	0 (0%)	0 (0%)	2 (5%)	2 (5%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5D
PERCENT OF HEXAGONALITY
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002

N	204	191	196	191	188	181	173
Mean	59.5	59.5	59.7	59.8	60.0	60.0	59.1
95% CI	58.7, 60.3	58.8, 60.3	59.0, 60.5	59.0, 60.6	59.2, 60.7	59.1, 60.8	58.2, 59.9
%Hex < 45 (stress)	3 (1%)	0 (0%)	2 (1%)	0 (0%)	1 (1%)	3 (2%)	2 (1%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5E
PERCENT OF HEXAGONALITY
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002-LTM

N	121	116	118	119	120	118	115	71	101	90
Mean	59.5	59.7	60.1	60.0	60.0	60.1	59.1	59.0	59.5	59.7
95% CI	58.4, 60.5	58.7, 60.7	59.0, 61.2	58.9, 61.0	59.0, 61.0	59.0, 61.2	58.0, 60.2	57.6, 60.4	58.4, 60.6	58.5, 60.9
%Hex < 45 (stress)	2 (2%)	0 (0%)	2 (2%)	0 (0%)	0 (0%)	3 (3%)	1 (1%)	1 (1%)	0 (0%)	0 (0%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5F
COEFFICIENT OF VARIATION
IMT-IMPLANTED EYES
IMT-002

N	205	193	198	190	186	180	171
Mean	34.4	33.5	33.8	33.5	33.4	33.4	33.6
95% CI	33.8, 35.1	32.9, 34.2	33.2, 34.3	32.8, 34.2	32.7, 34.2	32.7, 34.1	32.8, 34.5
CV > 45 (stress)	8 (4%)	5 (3%)	2 (1%)	3 (2%)	5 (3%)	3 (2%)	3 (2%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5G
COEFFICIENT OF VARIATION
IMT-IMPLANTED EYES
IMT-002-LTM

N	122	116	120	119	119	118	114	70	101	88
Mean	34.0	33.2	33.6	33.0	33.1	33.3	33.6	33.5	33.6	32.6
95% CI	33.2, 34.9	32.3, 34.0	32.8, 34.4	32.0, 33.9	32.1, 34.0	32.4, 34.2	32.5, 34.7	32.1, 35.0	32.2, 35.1	31.5, 33.7
CV > 45 (stress)	3 (2%)	3 (3%)	1 (1%)	2 (2%)	4 (3%)	2 (2%)	3 (3%)	2 (3%)	7 (7%)	1 (1%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5H
COEFFICIENT OF VARIATION
48-MONTH CONSISTENT COHORT
IMT-IMPLANTED EYES
IMT-002-LTM

N	42	42	42	42	42	42	42	42	42	42
Mean	33.8	32.6	33.4	32.7	32.2	33.3	33.9	33.8	33.6	32.9
95% CI	32.6, 35.1	31.4, 33.8	32.1, 34.6	31.0, 34.3	31.0, 33.5	32.0, 34.6	32.5, 35.2	32.3, 35.3	31.4, 35.7	31.2, 34.7
CV > 45 (stress)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)	4 (10%)	1 (2%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5I
COEFFICIENT OF VARIATION
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002

N	203	191	196	191	188	181	173
Mean	34.3	35.0	35.1	34.8	35.0	34.8	35.3
95% CI	33.7, 34.9	34.3, 35.6	34.6, 35.7	34.2, 35.5	34.3, 35.7	34.2, 35.5	34.6, 35.9
CV > 45 (stress)	5 (2%)	7 (4%)	4 (2%)	5 (3%)	8 (4%)	8 (4%)	6 (3%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5J
COEFFICIENT OF VARIATION
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002-LTM

N	120	116	118	119	120	118	115	71	101	90
Mean	34.2	34.7	34.8	34.6	34.6	34.5	35.1	34.9	34.8	34.5
95% CI	33.4, 35.0	33.9, 35.6	34.1, 35.5	33.8, 35.4	33.8, 35.5	33.7, 35.3	34.2, 36.0	34.1, 35.8	34.0, 35.7	33.6, 35.3
CV > 45 (stress)	2 (2%)	3 (3%)	2 (2%)	2 (2%)	4 (3%)	3 (3%)	6 (5%)	1 (1%)	2 (2%)	0 (0%)

N = number of eyes returned for the visit with non-missing data. Only 3 eyes had the 30-month records and they were not included in the analyses.

TABLE 20.5K
CORNEA THICKNESS
IMT-IMPLANTED EYES
IMT-002

N	206	198	200	191	192	177	172
Mean	553	552	556	554	558	554	561
95% CI	548, 559	546, 558	550, 563	547, 561	549, 567	547, 562	553, 568

N = number of eyes returned for the visit with non-missing data.

TABLE 20.5L
CORNEA THICKNESS
IMT-IMPLANTED EYES
IMT-002-LTM

N	123	121	122	120	122	116	115	43	82	84
Mean	556	553	559	558	562	557	565	565	568	562
95% CI	549, 563	545, 561	550, 568	549, 567	549, 575	547, 566	556, 575	548, 581	554, 582	548, 577

N = number of eyes returned for the visit with non-missing data. The 30-month records were excluded in the analyses due to very small sample size.

TABLE 20.5M
CORNEA THICKNESS
48-MONTH CONSISTENT COHORT
IMT-IMPLANTED EYES
IMT-002-LTM

N	26	26	26	26	26	26	26	26	26	26
Mean	554	543	545	546	566	560	560	565	571	554
95% CI	537, 572	528, 558	529, 562	527, 565	537, 594	535, 585	537, 582	545, 586	545, 597	532, 577

TABLE 20.5N
CORNEA THICKNESS
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002

N	206	195	200	192	193	178	173
Mean	554	553	553	552	554	555	553
95% CI	549, 560	548, 559	548, 559	547, 558	548, 560	549, 561	547, 559

N = number of eyes returned for the visit with non-missing data. The 30-month records were excluded in the analyses due to very small sample size.

TABLE 20.5O
CORNEA THICKNESS
FELLOW EYES OF IMT-IMPLANTED EYES
IMT-002-LTM

N	123	120	122	120	122	116	115	43	81	84
Mean	557	557	557	556	558	557	556	557	557	553
95% CI	550, 564	551, 564	550, 565	549, 563	550, 565	550, 565	549, 563	543, 571	549, 566	544, 561

N = number of eyes returned for the visit with non-missing data. The 30-month records were excluded in the analyses due to very small sample size.

TABLE 21.1
BI-EXPONENTIAL MODEL FOR ECD
$$ECD_{month}=p\times e^{-a\times month}+q\times e^{-b\times month}+\varepsilon$$
NON-GUTTATA IMT-IMPLANTED EYES WITH ACD ≥ 3 MM
BASED ON DATA FROM BASELINE TO 48 MONTHS
IMT-002 AND IMT-002-LTM

p	506.7	65.5	378.1	635.3	7.7	<.001
a	0.5	0.2	0.1	1.0	2.5	0.012
q	2029.7	45.0	1941.4	2118.0	45.1	<.001
b	0.003	0.001	0.001	0.005	3.5	<.001

Annual ECD % Loss (90% CI) based on the slow exponential rate: 3.8% (2.0%, 5.5%).

TABLE 21.2
PREDICTED MEAN ECD BASED ON BI-EXPONENTIAL MODEL FOR NON-GUTTATA IMT-IMPLANTED EYES WITH ACD ≥ 3 MM BASED ON DATA FROM BASELINE TO 48 MONTHS
IMT-002 AND IMT-002-LTM

3 Months	2109.2	2029.4, 2189.0
12 Months	1954.0	1911.0, 1997.1
24 Months	1879.7	1842.2, 1917.3
36 Months	1808.9	1753.7, 1864.1
48 Months	1740.8	1660.4, 1821.2
60 Months	1675.2	1569.3, 1781.1

TABLE 21.3
PREDICTED PROBABILITY OF ECD LESS THAN THRESHOLD BASED ON BI-EXPONENTIAL MODEL FOR NON-GUTTATA IMT-IMPLANTED EYES WITH ACD ≥ 3 MM BASED ON DATA FROM BASELINE TO 48 MONTHS IMT-002 AND IMT-002-LTM (EXCLUDING PREOP RESIDUALS)

[redacted]			
3 Months	5.0	1.6	0.1
12 Months	7.1	3.2	0.9
24 Months	8.5	4.3	1.3
36 Months	8.9	6.1	1.9
48 Months	9.8	6.9	2.6
60 Months	10.5	7.7	3.5

The empirical frequency of residuals was used to estimate these probabilities.

TABLE 22.1
BI-EXPONENTIAL MODEL FOR ECD
$$ECD_{month}=p\times e^{-a\times month}+q\times e^{-b\times month}+\varepsilon$$
IMT-IMPLANTED EYES
BASED ON DATA FROM BASELINE TO 48 MONTHS
IMT-002 AND IMT-002-LTM

p	530.0	51.4	429.1	630.9	10.3	<.001
a	0.6	0.2	0.2	1.1	3.0	0.003
q	1967.1	34.2	1900.0	2034.3	57.5	<.001
b	0.004	0.001	0.003	0.006	5.6	<.001

Annual ECD % Loss (90% CI) based on the slow exponential rate: 4.8% (3.4%, 6.2%).

TABLE 22.2
PREDICTED MEAN ECD BASED ON BI-EXPONENTIAL MODEL FOR IMT-IMPLANTED EYES BASED ON DATA FROM BASELINE TO 48 MONTHS IMT-002 AND IMT-002-LTM

3 Months	2019.7	1955.5, 2083.9
12 Months	1872.2	1838.8, 1905.6
24 Months	1781.4	1752.0, 1810.9
36 Months	1695.3	1652.1, 1738.4
48 Months	1613.3	1551.8, 1674.8
60 Months	1535.3	1455.7, 1614.9

TABLE 22.3
PREDICTED PROBABILITY OF ECD LESS THAN THRESHOLD
BASED ON BI-EXPONENTIAL MODEL FOR IMT-IMPLANTED EYES DATA
BASED ON DATA FROM BASELINE TO 48 MONTHS
IMT-002 AND IMT-002-LTM
(EXCLUDING PREOP RESIDUALS)

3 Months	7.2	2.8	0.3
12 Months	9.4	5.0	1.4
24 Months	11.4	6.7	2.6
36 Months	13.1	8.2	3.9
48 Months	15.4	9.6	5.1
60 Months	17.4	11.4	6.7

The empirical frequency of residuals was used to estimate these probabilities.

TABLE 22.4
BI-EXPONENTIAL MODEL FOR ECD
$ECD_{month}=p\times e^{-a\times month}+q\times e^{-b\times month}+\varepsilon$
IMT-IMPLANTED EYES
BASED ON DATA FROM BASELINE TO 54 MONTHS
IMT-002 AND IMT-002-LTM

p	530.5	50.3	431.8	629.3	10.5	<.001
a	0.6	0.2	0.2	1.1	3.0	0.003
q	1966.5	32.6	1902.7	2030.4	60.4	<.001
b	0.004	0.001	0.003	0.005	6.3	<.001

Annual ECD % Loss (90% CI) based on the slow exponential rate: 4.8% (3.6%, 6.0%).

TABLE 22.5
PREDICTED MEAN ECD BASED ON BI-EXPONENTIAL MODEL
IMT-IMPLANTED EYES
BASED ON DATA FROM BASELINE TO 54 MONTHS
IMT-002 AND IMT-002-LTM

3 Months	2019.7	1955.6, 2083.8
12 Months	1872.0	1838.7, 1905.3
24 Months	1781.5	1753.7, 1809.4
36 Months	1695.7	1658.1, 1733.2
48 Months	1614.0	1561.2, 1666.7
60 Months	1536.2	1467.9, 1604.4

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Department of Ophthalmology
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Henry F Edelhauser, PhD
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October 29, 2007

Mr, Allen W. Hill
CEO
Vision Care Ophthalmic Technologies, Inc,
14395 Saratoga Avenue, Suite 150
Saratoga, CA 95070

Re: Corneal Endothelial Wound Healing

Dear Allen:

INTRODUCTION

The integrity of corneal endothelium is essential for long-term maintenance of corneal clarity, Therefore, recovery of the corneal endothelial monolayer from the mechanical trauma effects of surgery is important to understand. Endothelial cells are resilient' as a function of several factors" 2, 3, 4 Irrespective of this layer of cells being amitotic after birth, the cells also have a remarkable ability to enlarge during loss, arising from any cause, thereby initiating a reasonably well understood sequence of events in the wound hurling process.

THE RESILIENCY OF THE CORNEAL ENDOTHELIUM

Corneal endothelium exhibits resiliency[2] which is due to:

- the increased peripheral endothelial cell number, for migration,
- the ability of the endothelial cells to form tight junctions to maintain the endothelial barrier,
- the increase in pump sites under stress and
- the ability of the endothelial cell to shift their metabolism for membrane repair.

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During corneal endothelial wound repair, the 3 stage process includes initial coverage of the injured area by elongated endothelial cells, forming a functional but incomplete barrier and minimal pump density. As the cells enlarge, and form irregular polygons, there is an increase in pump sites. The final stage of the wound healing is the remodeling of the cells into stable hexagons, where the pump sites balance the endothelial leakage, and where the corneal thickness returns to normal.

In cases of intraocular surgery[7, 8, 9, 10, 11, 12] the increased number of paracentral and peripheral endothelial cells allow endothelial cell spreading (peripheral to central) and remodeling to maintain the central endothelium and physiological function [1, 2, 4, 11, 12] The second method corneal endothelial cells use to withstand stress is to maintain their tight junctions. The tight junctions are the last to break down and are the first to reform during wound healing. The third mechanism that the corneal endothelial cells use to withstand stress is their ability to increase their pump site density. All mechanisms, in combination, provide for the cornea's resilience and stability in the face of surgical insult from surgery. Keratoplasty provides one of the best examples of the resiliency of corneal endothelium[s'] 0, since the viability of the endothelial layer of donor corneas has been demonstrated in transplantations over the past 50 years, using many preservation conditions for the donor tissue. After transplantation, the endothelial cells undergo a progressive wound healing response of migration of endothelial cells over the wound edge to the periphery, the . development of tight junctions to establish the endothelial barrier, and once the barrier is formed the cells increase the pump sites. Post-transplantation, the corneas may experience significant loss of cell density. In the published clinical series on PKP over the long-term (10-15 years), decrease of ECD is significant without corresponding clinically meaningful shifts in CV or % Hex. This suggests that the long term corneal grafts with low ECD are stabilizing and have a reasonable potential to outlast the life expectancy of the recipients. ECD at 700-800 cells/mm^2 or slightly below are adequate to 'maintain corneal transparency provided the CV and % Hex are within normal liniits.[5, 6, 12] Similarly, hi eyes with glaucoma[2], decreases in endothelial cell density were observed, while the CV and % Hex were determined to be normal, which indicates endothelial stability.
Thus one can observe that the corneal endothelium responds to surgery, which is undertaken for many different reasons, in a similar wound healing manner:

- Migration of cells from peripheral reserve
- Re-establishment of barrier tight junctions
- Establishment of increased pump site density
- Adjustment of metabolism for cell repair
- Remodeling of the endothelial monolayer to a stable configuration (hexagons)[12]

REVIEW OF THE IMT CLINICAL RESULTS

The behavior of the endothelium in eyes with the IMT device implanted show the same response pattern. The CV and % IIexagonality data from the VisionCare IMT002 clinical trial supports that the endothelial morphology/morphometry is stable, and

ongoing endothelial cell remodeling contributes to changes in endothelial cell density in the context of this stable monolayer environment. The data from the patients implanted with the IMT models WA 2.2Y and 3.OY support a corneal endothelium that shows a stable endothelium without continual stress.

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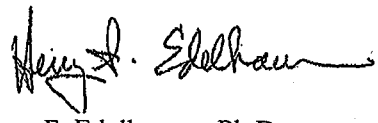
Sincerely yours,



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