

Pt:Posterior Tutorial, Left eye, DOB: Oct 31, 1952, M, T=168.00 hrs

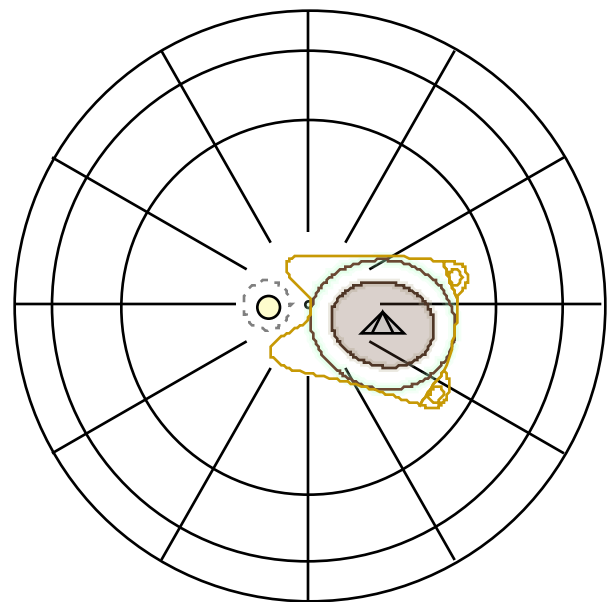
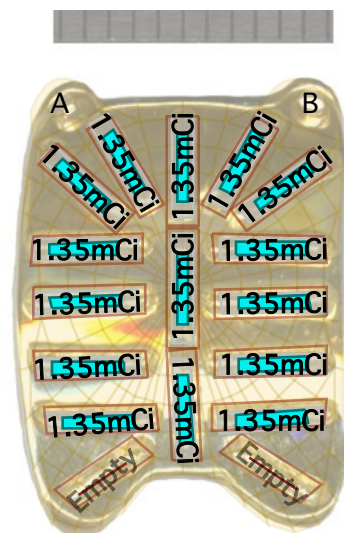
Plaque Simulator Treatment Plan

Patient name:	Posterior Tutorial	PSID: 18B09371
Medical record #:		Ethnicity code: 0
CPT Code(s):	77263	
Other:		Gender: M
Institution:		DOB: Oct 31, 1952
Implant:	Mon Mar 10, 2014 at 10:00 _____	Age at implant: 62
Removal:	Mon Mar 17, 2014 at 10:00 _____	
Duration (hours):	168.000	Range: ± 3.36 hr (2.0%)
Prescription:	85.00 Gy to Tumor 1 TAX Inner+ 4.50 mm	

Plaque:	1 (EP917)
Nominal diameter:	17.91 mm
Number of sources:	15 of 17
Suture coordinates:	A (2:38,13.3mm), B (4:09,12.8mm)
Total strength:	I-125 (IAI-125A) 25.73U (20.26mCi) on 3/10/14
Avg. strength:	1.715U (1.351mCi) on 3/10/14

Tumor #:	1
Apex (margin):	2.20 mm (2.00 mm)
Post.pole->center (ext.coord):	7.3 mm (3:28,18.3mm)
Radial x Circumferential:	9.80 x 7.40 mm
Length x Width:	9.80 x 7.40 mm
Area (Volume):	59.9 sq.mm (0.08 mL)
% of retinal surface:	5.1 %

EP917



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EP917 CAX (mm)	Avg. Dose Rate (cGy/hr)	Total Dose (Gy)	
0.00 (external sclera)	425.8	715.4	
1.00 (inner sclera)	148.6	249.6	
2.00	113.8	191.2	
3.00	90.24	151.6	
4.00	71.74	120.5	
5.00	56.84	95.50	
6.00	45.11	75.79	
7.00	36.13	60.69	
8.00	29.27	49.17	
9.00	23.96	40.26	
10.00	19.74	33.16	
Critical Site	Avg. Dose Rate (cGy/hr)	Total Dose (Gy)	Distance From Plaque (mm)
Prescription point	50.60	85.00	5.500 Tumor 1 TAX Inner+ 4.50 mm
Sclera	148.6	249.6	1.000(from plaque center)
QA_Point	45.11	75.79	6.000(from plaque center)
QA_Check (isotropic pt srce in water)	46.70	78.45	Point/Check = 0.97
Optic disc	10.10	16.96	11.35(center to center)
Opposite retina	2.869	4.820	22.10(from plaque center)
Lens	5.897	9.907	17.88(center to center)
Eye origin	12.75	21.42	12.42(from plaque center)
Macula (posterior pole)	41.85	70.30	7.550(center to center)
Apex of tumor #1	86.24	144.9	3.200(from plaque center)
Dose calc. mode: Line, F[∅], B[r], Pexp, no T, Slot			

RADIATION SAFETY SURVEYS:

In: OR# _____ mR/hr meter _____

signature _____ date _____

Out: OR# _____ mR/hr meter _____

Patient _____ mR/hr meter _____

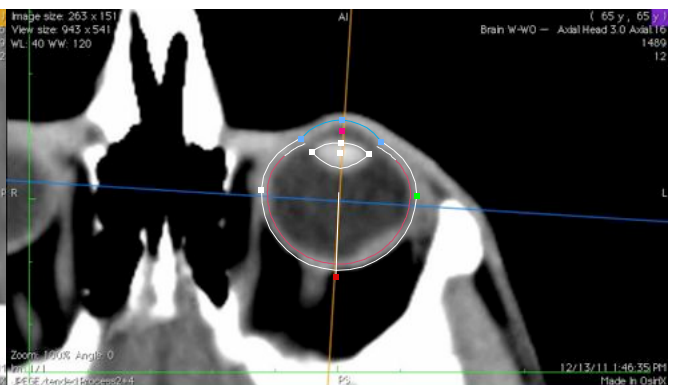
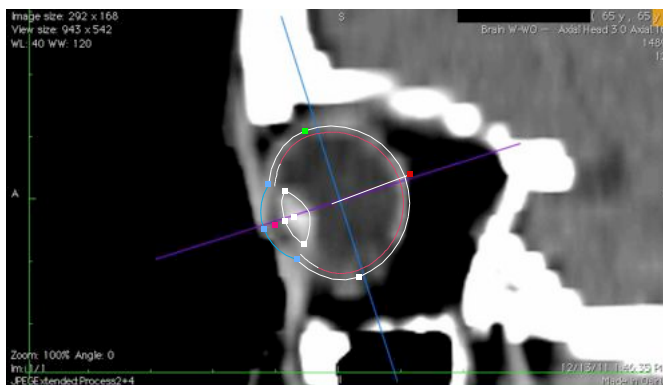
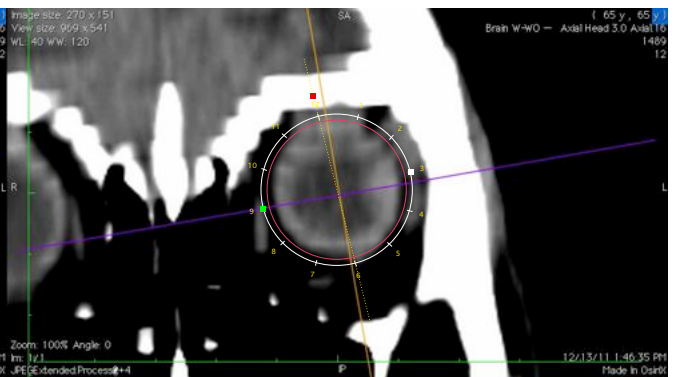
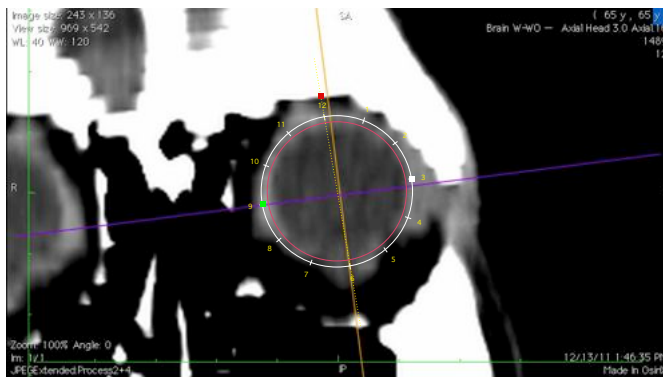
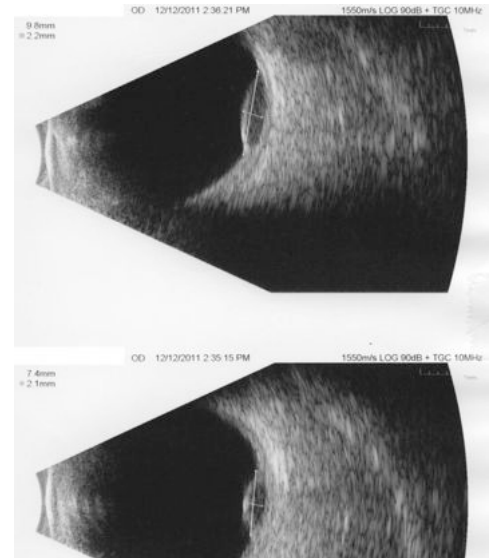
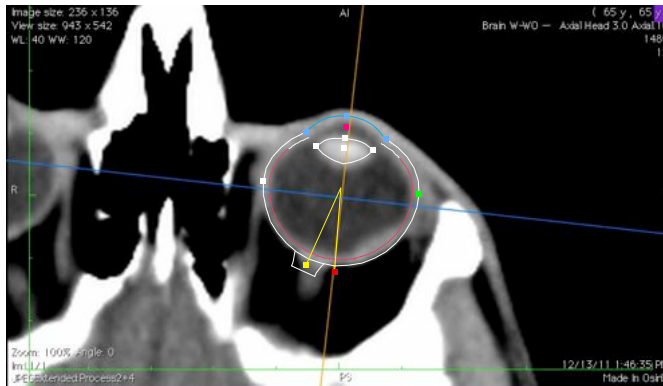
#seeds returned _____ misc. _____

signature _____ date _____



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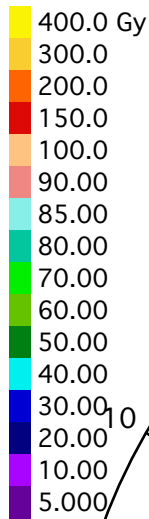
Plaque Simulator Treatment Plan



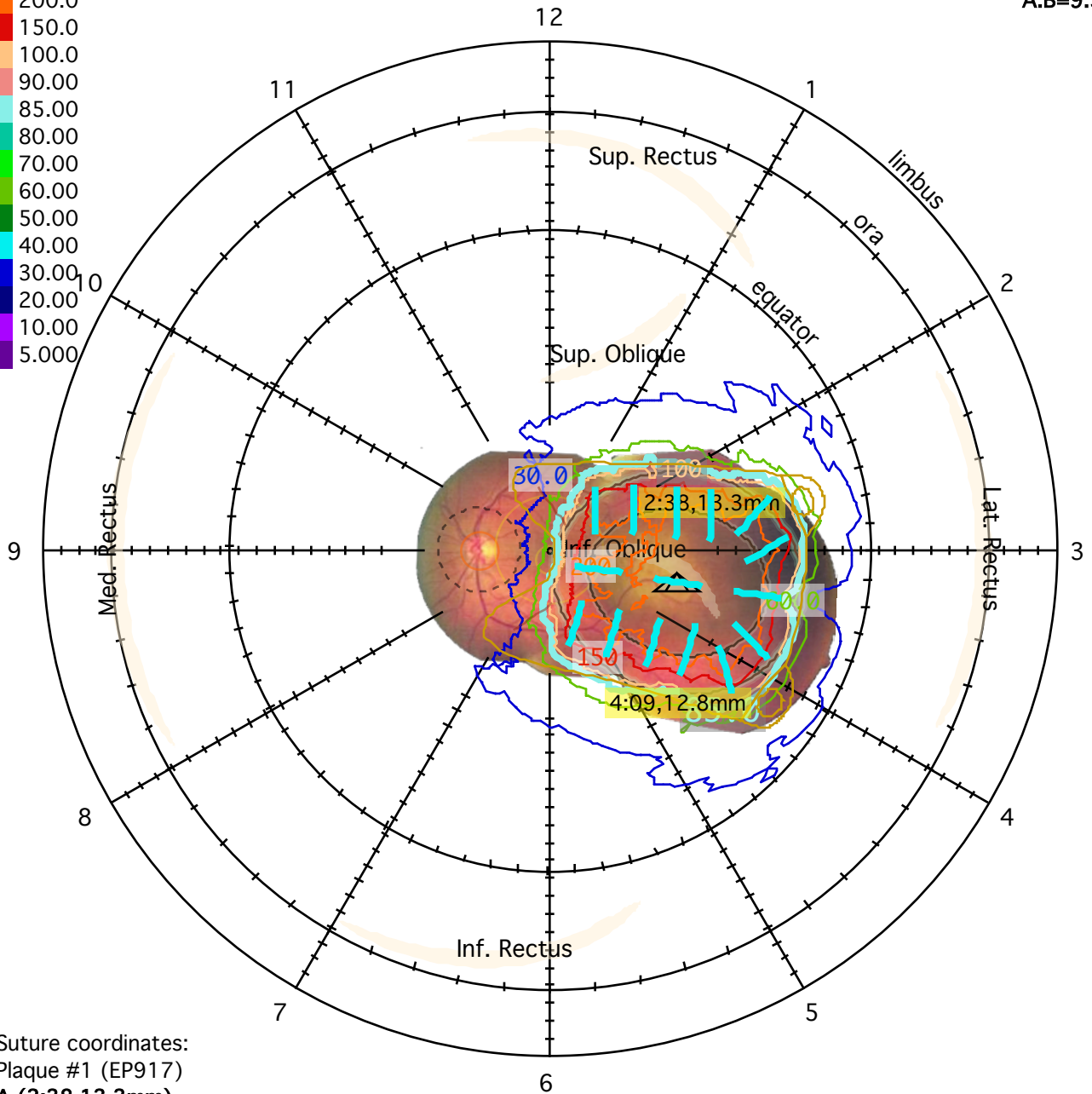
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Plaque Simulator Retinal Diagram

Rx plaque:	1 (EP917)
Dose matrix set:	1 (retinal surface)
Prescribed (Rx) dose:	85.00 Gy to Tumor 1 TAX Inner+ 4.50 mm
Dose matrix max:	266.70 Gy



Distance between sutures (mm):
Plaque #1 (EP917)
A:B=9.3



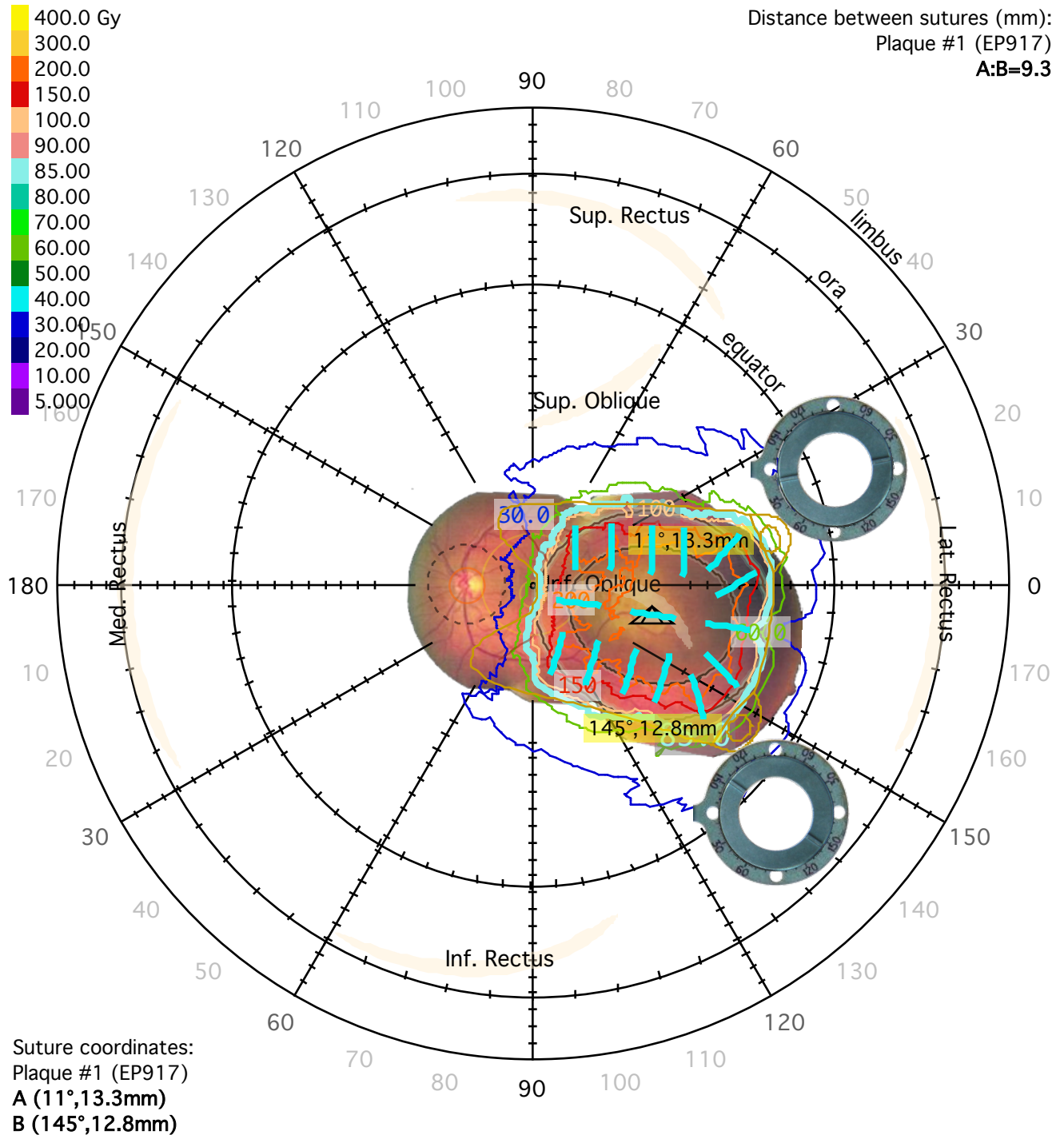
Suture coordinates:
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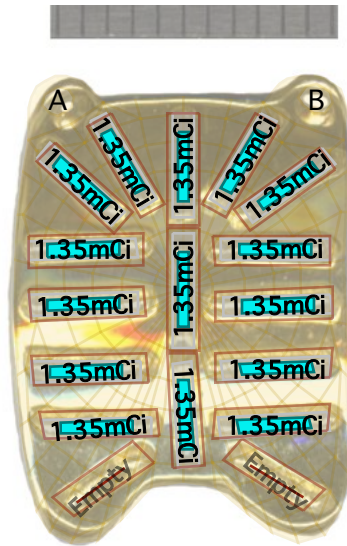
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Plaque Simulator Loading Diagram

Radionuclide source summary:	
Plaque #:	1
Plaque name:	EP917
Radionuclide:	I-125 (IAI-125A)
Inventory name:	My Tutorial
Number of sources:	15
Assay date:	3/10/14
Avg. (total) strength @ assay:	1.35 mCi (20.26 mCi)
Avg. (total) strength @ implant:	1.35 mCi (20.26 mCi)

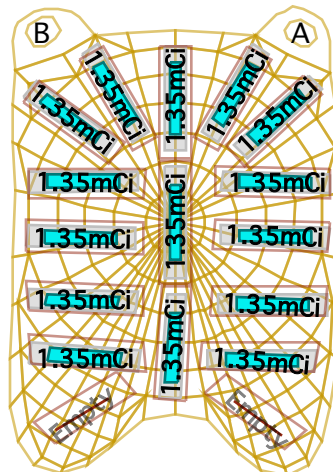
EP917

FACE (concave view)



EP917

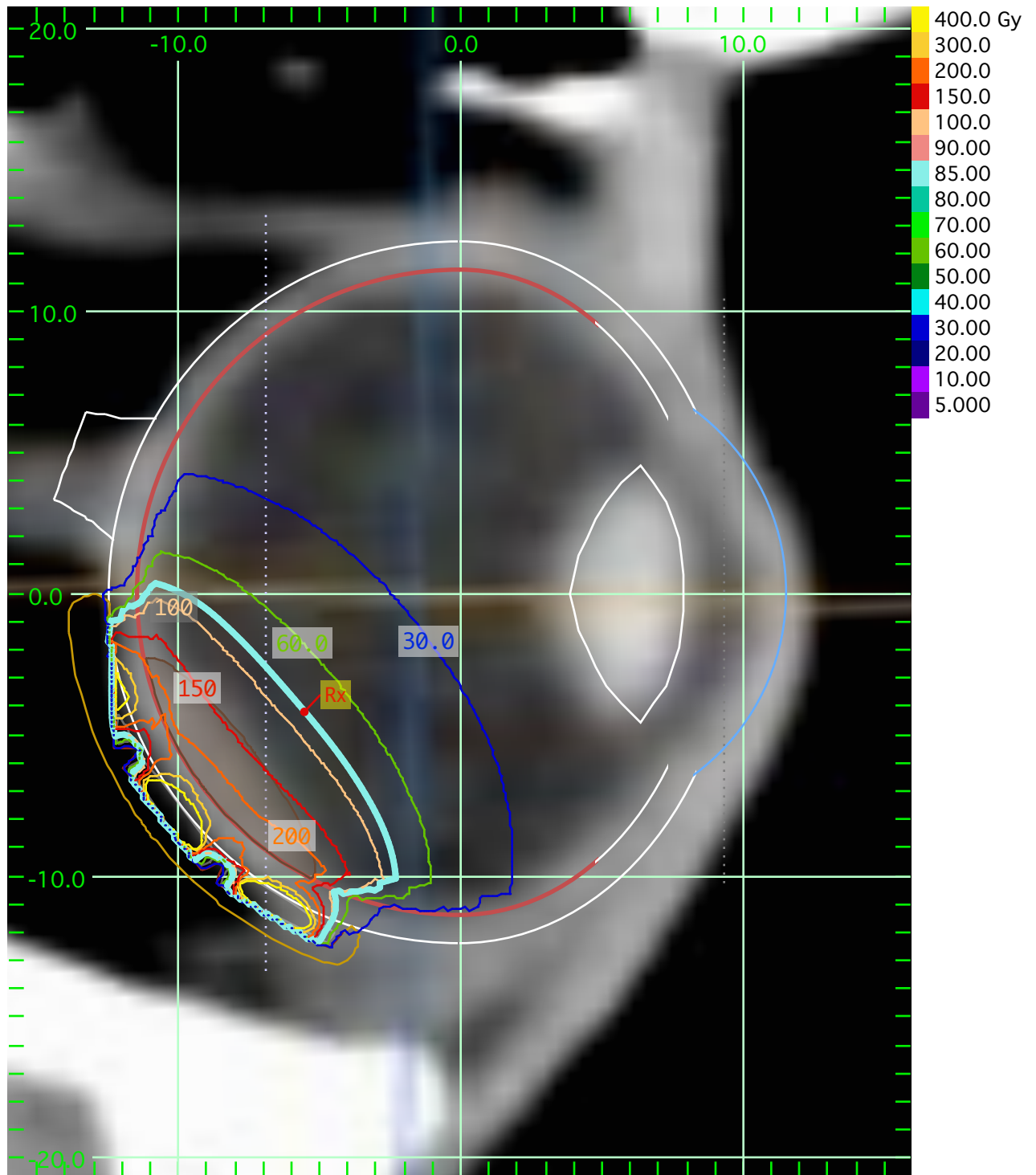
BACK (convex view)



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Plaque Simulator Isodose Plot

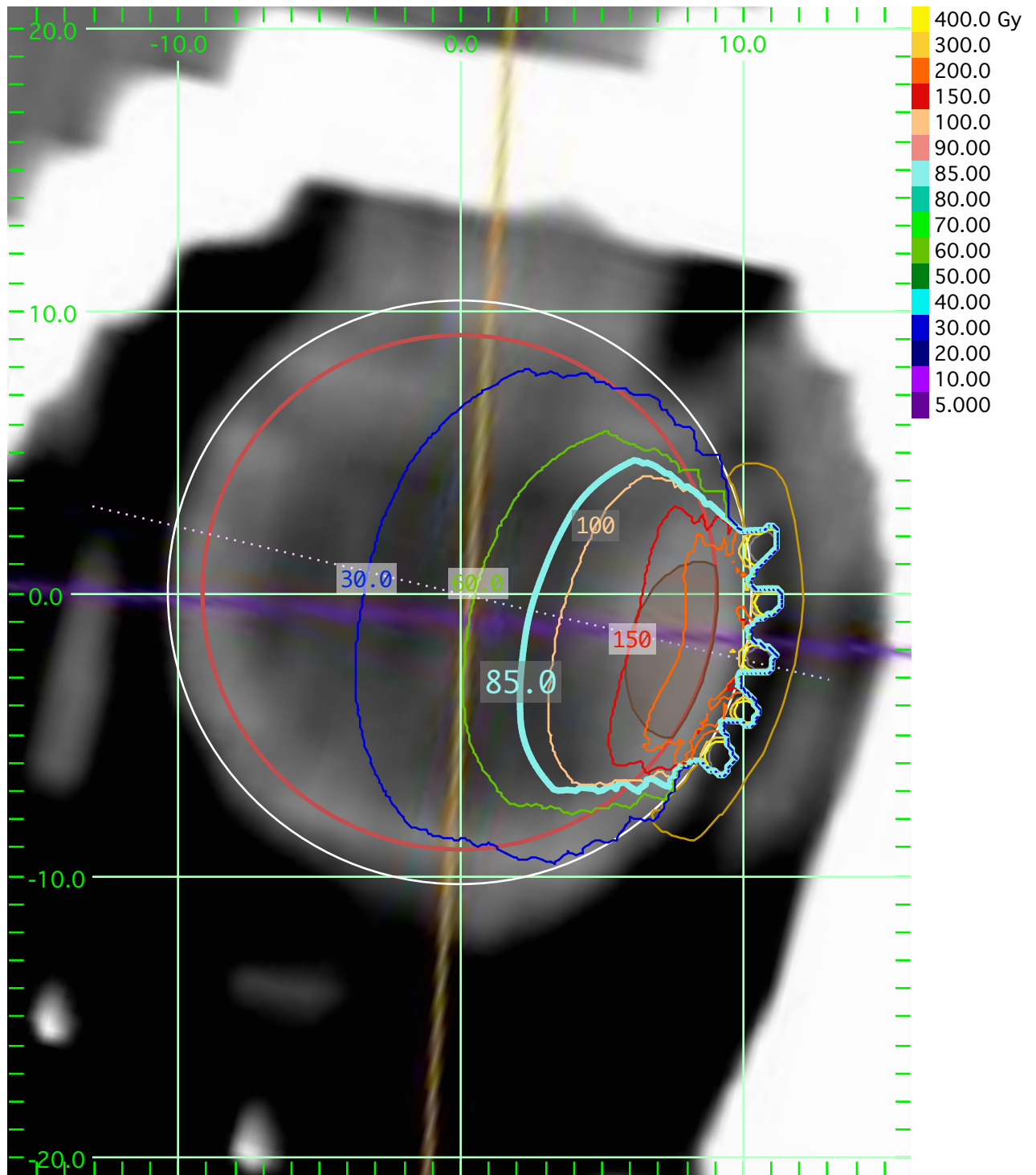
Markers	1 mm
Prescribed (Rx) dose	85.00 Gy to Tumor 1 TAX Inner+ 4.50 mm
Dose matrix set	1
Meridian plane longitudes	256.8° & 76.8°
Dose matrix maximum	2027.66 Gy



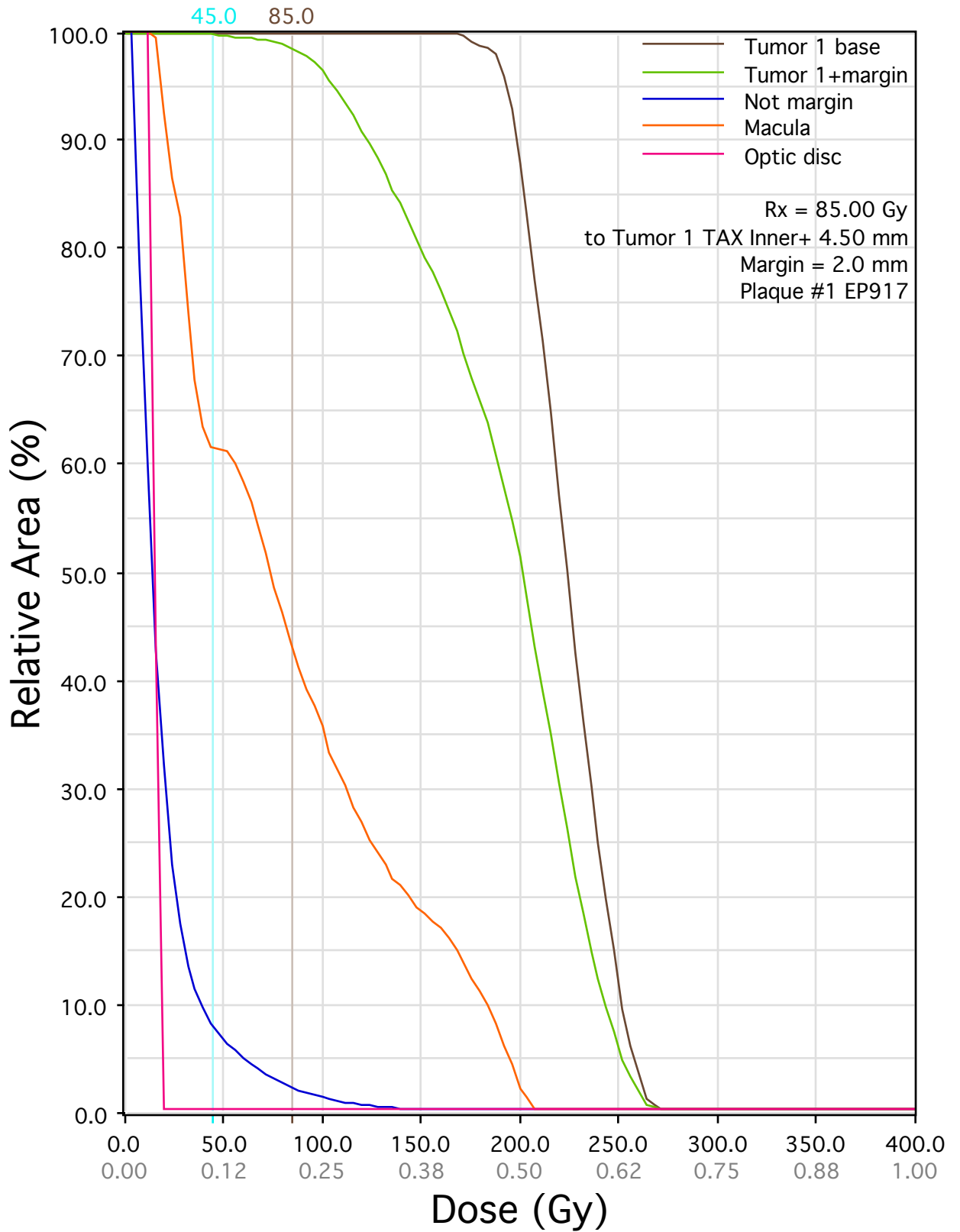
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Plaque Simulator Isodose Plot

Markers	1 mm
Prescribed (Rx) dose	85.00 Gy to Tumor 1 TAX Inner+ 4.50 mm
Dose matrix set	1
Equatorial plane offset	-6.9 mm
Dose matrix maximum	3222.72 Gy



Plaque Simulator Retina Dose-Area Histogram



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Plaque Simulator QA Check (isotropic point source in water)

S#	Model	Strength @implant	Activity to Sk	Tavg hours	Dose-Rate Constant	X mm	Y mm	Z mm	r mm	g(r)	Dose Gy	Check by
Plaque #1 EP917, implant 3/10/14 for T = 168.00 hours												
Tavg (hours) = 1.443 x 24.0 x half-life(in days)												
r = distance from source center to QA point on plaque CAX at (6.0,0.0,0.0)												
Dose (Gy) = Strength {x ActivityToSk} x Tavg x DoseRateConstant x (1 - exp(-T/Tavg)) x (1/r^2) x g(r)												
1	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	-0.400	0.000	0.000	6.400	1.043	6.910	_____
2	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.582	0.000	4.937	7.330	1.032	5.216	_____
3	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.582	0.086	-4.936	7.330	1.032	5.216	_____
4	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.906	-2.390	5.125	7.611	1.029	4.823	_____
5	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.996	-4.054	4.198	7.688	1.028	4.723	_____
6	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.340	-3.993	1.613	7.112	1.035	5.554	_____
7	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.231	-3.948	-0.555	7.012	1.036	5.719	_____
8	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.625	-3.861	-3.240	7.368	1.032	5.159	_____
9	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	1.328	-3.418	-5.470	7.964	1.025	4.387	_____
10	empty					2.764	-3.307	-7.790	9.061			_____
11	empty					2.764	3.710	-7.607	9.061			_____
12	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	1.328	3.607	-5.347	7.964	1.025	4.387	_____
13	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.539	3.702	-3.106	7.292	1.033	5.273	_____
14	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.164	3.725	-0.590	6.949	1.036	5.827	_____
15	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.231	3.642	1.621	7.012	1.036	5.719	_____
16	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	1.006	4.141	4.141	7.697	1.028	4.712	_____
17	IAAI	1.351mCi	1.27U/mCi	2057.14	0.981	0.906	2.390	5.125	7.611	1.029	4.823	_____
									QA_Point Dose =	75.79	QA_Check Dose =	78.45
									Point /	Check =	0.97	_____

EP917



Plaque Simulator Setup

