

Pt:Equatorial Tutorial, Right eye, DOB: Jul 7, 1946, M, T=168.00 hrs

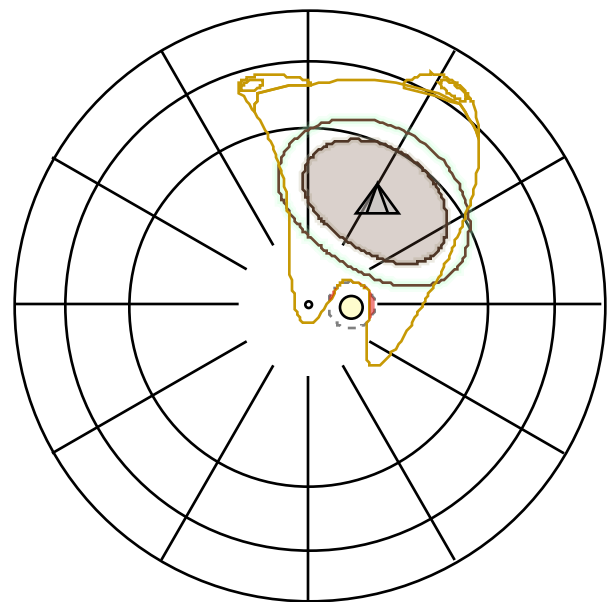
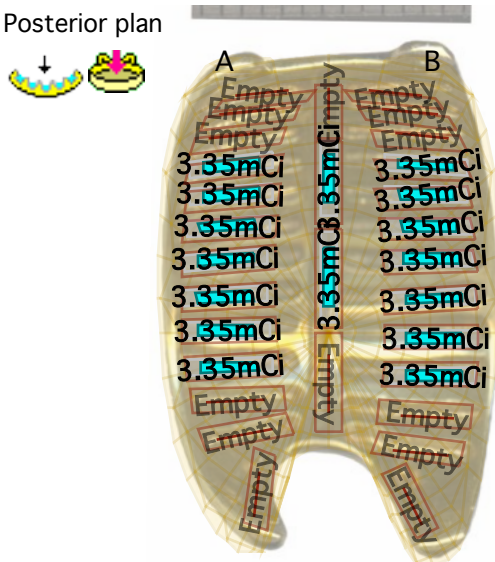
# Plaque Simulator Treatment Plan

Patient name:	Equatorial Tutorial	PSID: 196B75BE
Medical record #:		Ethnicity code: 0
CPT Code(s):	77263	
Other:	USC	Gender: M
Institution:		DOB: Jul 7, 1946
Implant:	Mon Nov 28, 2011 at 09:00 _____	Age at implant: 68
Removal:	Mon Dec 5, 2011 at 09:00 _____	
Duration (hours):	168.000	Range: $\pm 3.36$ hr (2.0%)
Prescription:	85.00 Gy to T1 T1 Apex @ 9.00 mm	

Plaque:	1 (Posterior plan)
Nominal diameter:	21.03 mm
Number of sources:	16 of 30
Suture coordinates:	A (11:31,7.0mm), B (1:08,3.6mm)
Total strength:	I-125 (IAI-125A) 68.14U (53.65mCi) on 11/28/11
Avg. strength:	4.259U (3.353mCi) on 11/28/11

Tumor #:	T1
Apex (margin):	9.00 mm (2.00 mm)
Post.pole->center (ext.coord):	11.9 mm (1:06,16.1mm)
Radial x Circumferential:	10.00 x 12.00 mm
Length x Width:	12.00 x 10.00 mm
Area (Volume):	101.3 sq.mm (0.49 mL)
% of retinal surface:	8.4 %

Posterior plan



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Posterior plan CAX (mm)	Avg. Dose Rate (cGy/hr)	Total Dose (Gy)	
0.00 (external sclera)	111.0	186.6	
1.00 (inner sclera)	183.6	308.4	
2.00	176.2	296.0	
3.00	157.8	265.1	
4.00	136.7	229.6	
5.00	116.2	195.3	
6.00	97.99	164.6	
7.00	82.40	138.4	
8.00	69.39	116.6	
9.00	58.59	98.43	
10.00	49.47	83.10	
Critical Site	Avg. Dose Rate (cGy/hr)	Total Dose (Gy)	Distance From Plaque (mm)
Prescription point	50.60	85.00	10.13 T1 T1 Apex @ 9.00 mm
Sclera	183.6	308.4	1.000(from plaque center)
QA_Point	97.99	164.6	6.000(from plaque center)
QA_Check (isotropic pt srce in water)	101.3	170.2	Point/Check = 0.97
Optic disc	27.78	46.68	7.350(center to center)
Opposite retina	8.282	13.91	23.13(from plaque center)
Lens	16.63	27.93	18.94(center to center)
Eye origin	34.19	57.45	12.24(from plaque center)
Fovea	22.54	37.87	9.826(center to center)
Apex of tumor #1	50.60	85.00	10.13(from plaque center)

Dose calc. mode: Line, F[Ø], B[r], Pexp, no T, Slot

### RADIATION SAFETY SURVEYS:

In: OR# \_\_\_\_\_ mR/hr meter \_\_\_\_\_

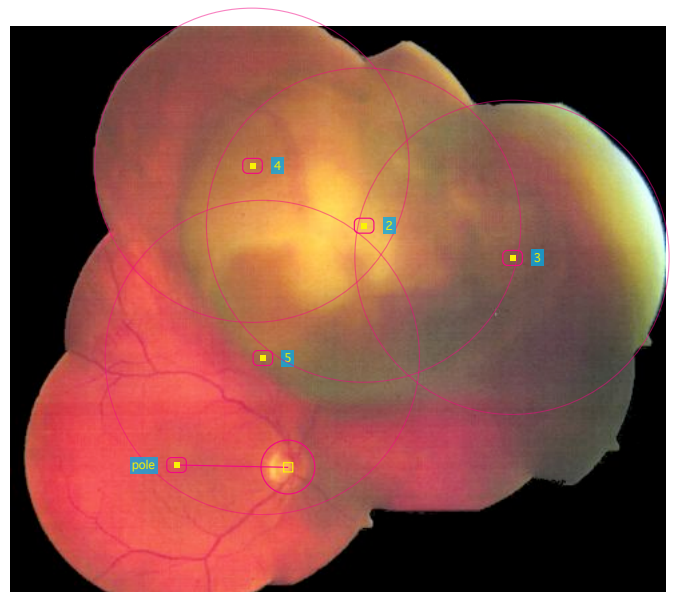
signature \_\_\_\_\_ date \_\_\_\_\_

Out: OR# \_\_\_\_\_ mR/hr meter \_\_\_\_\_

Patient \_\_\_\_\_ mR/hr meter \_\_\_\_\_

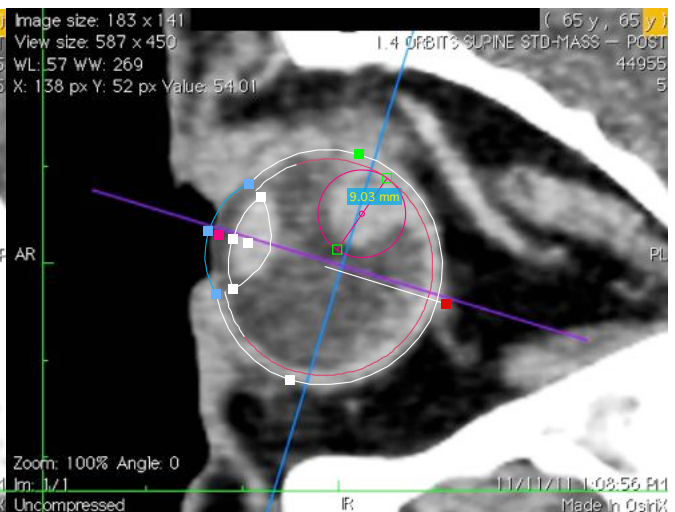
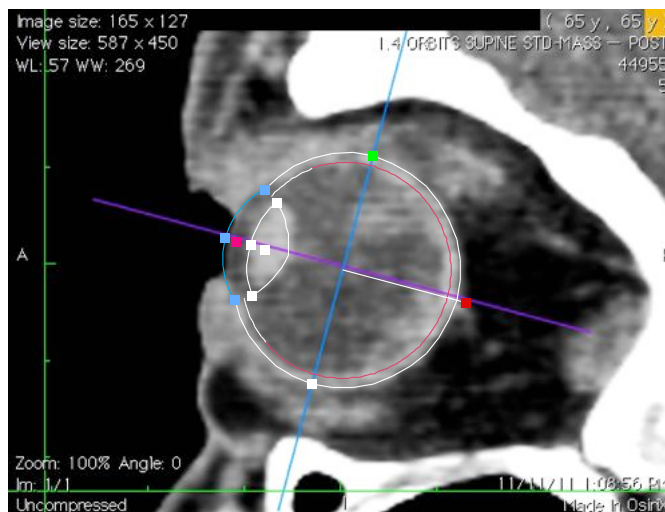
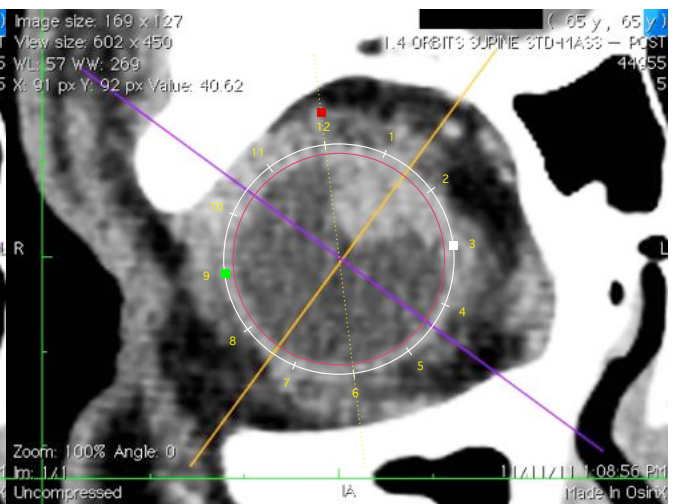
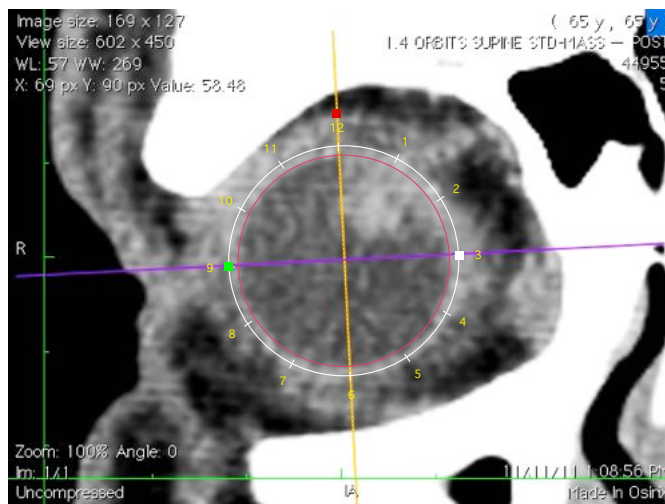
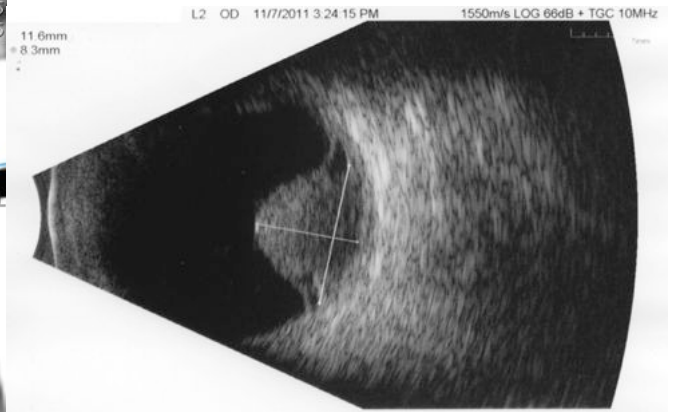
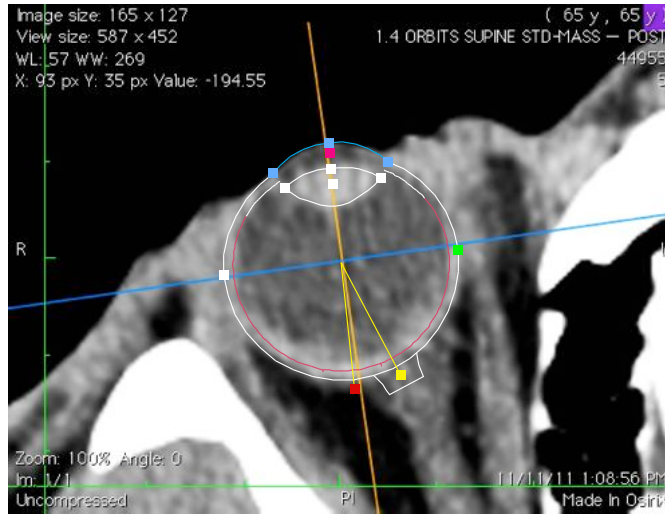
#seeds returned \_\_\_\_\_ misc. \_\_\_\_\_

signature \_\_\_\_\_ date \_\_\_\_\_



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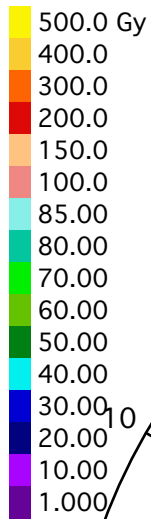
# Plaque Simulator Treatment Plan



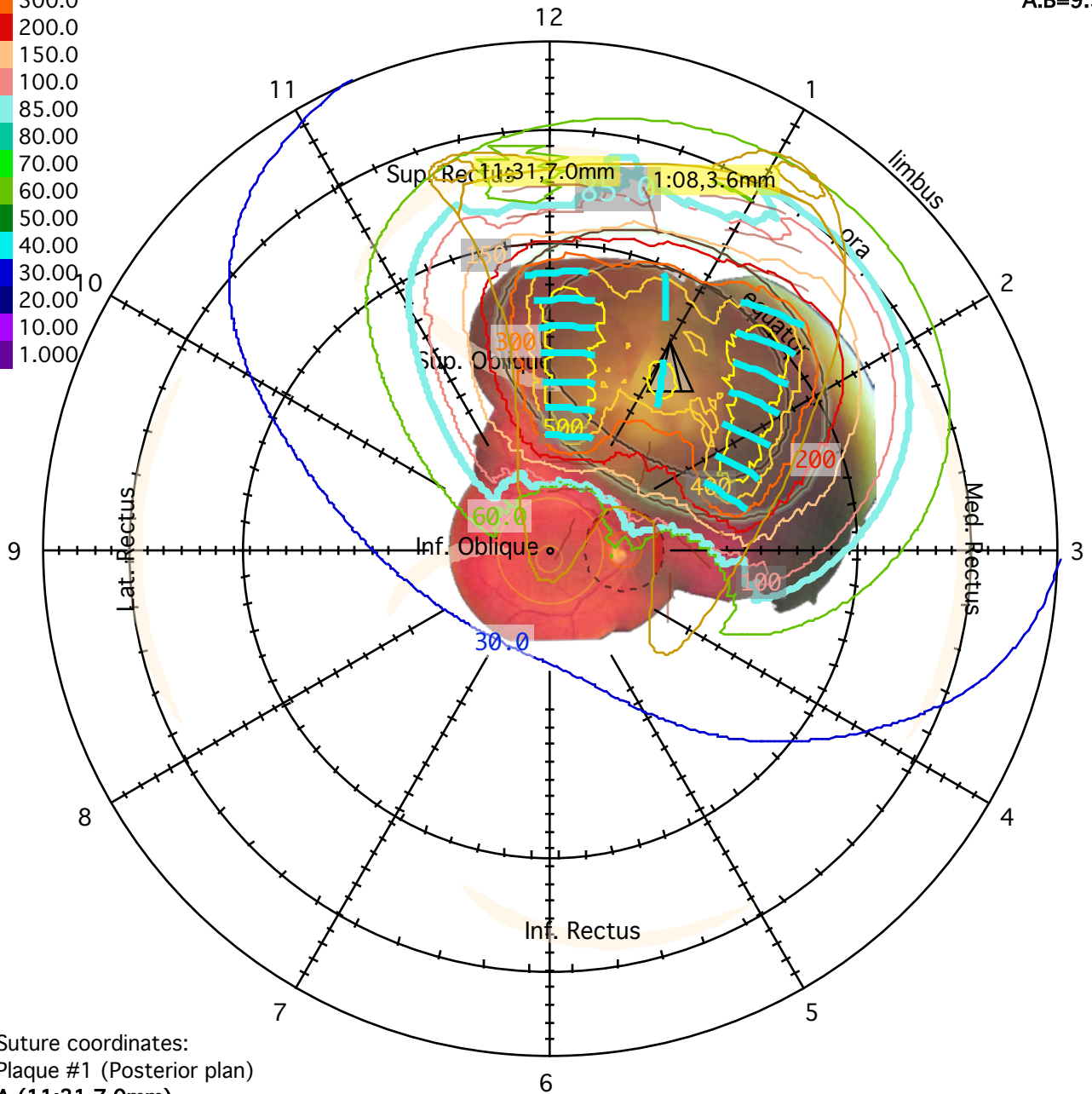
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# Plaque Simulator Retinal Diagram

Rx plaque:	1 (Posterior plan)
Dose matrix set:	1 (retinal surface)
Prescribed (Rx) dose:	85.00 Gy to T1 T1 Apex @ 9.00 mm
Dose matrix max:	622.20 Gy



Distance between sutures (mm):  
Plaque #1 (Posterior plan)  
A:B=9.5



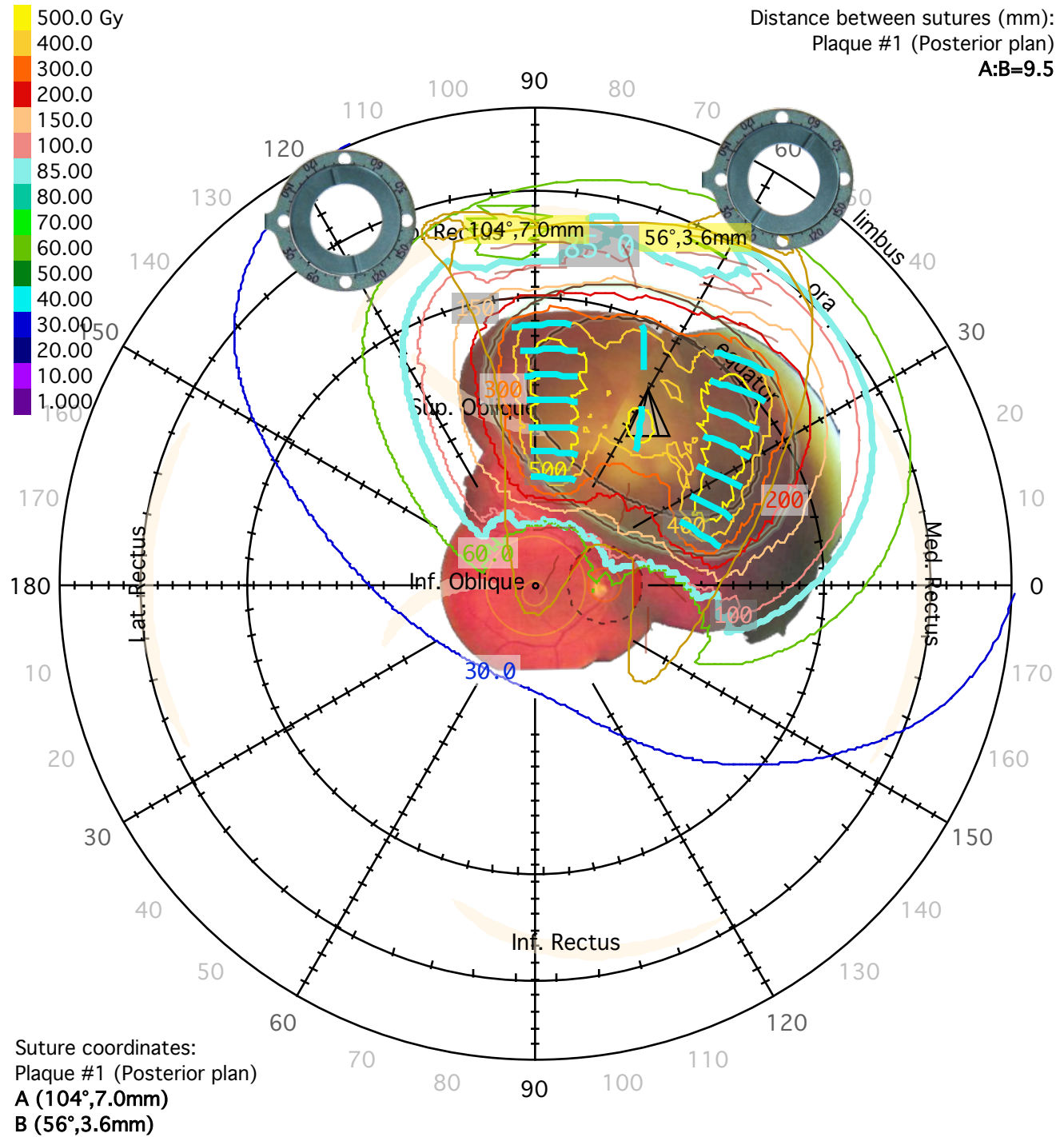
Suture coordinates:  
Plaque #1 (Posterior plan)  
A (11:31,7.0mm)  
B (1:08,3.6mm)



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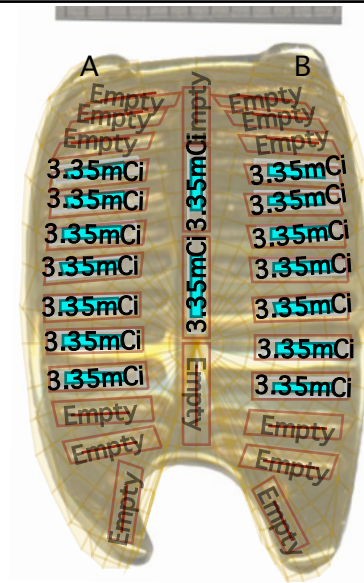


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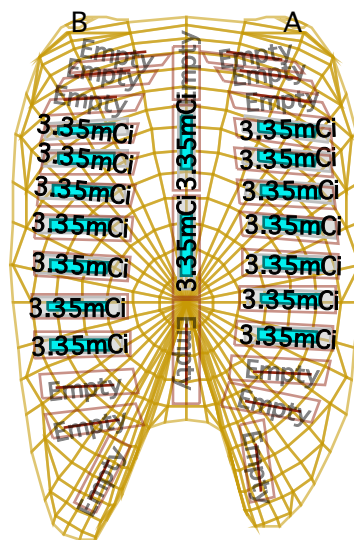
# Plaque Simulator Loading Diagram

Radionuclide source summary:	
Plaque #:	1
Plaque name:	Posterior plan
Radionuclide:	I-125 (IAI-125A)
Inventory name:	Equatorial Tutorial
Number of sources:	16
Assay date:	11/28/11
Avg. (total) strength @ assay:	3.35 mCi (53.65 mCi)
Avg. (total) strength @ implant:	3.35 mCi (53.65 mCi)

Posterior plan  
FACE (concave view)



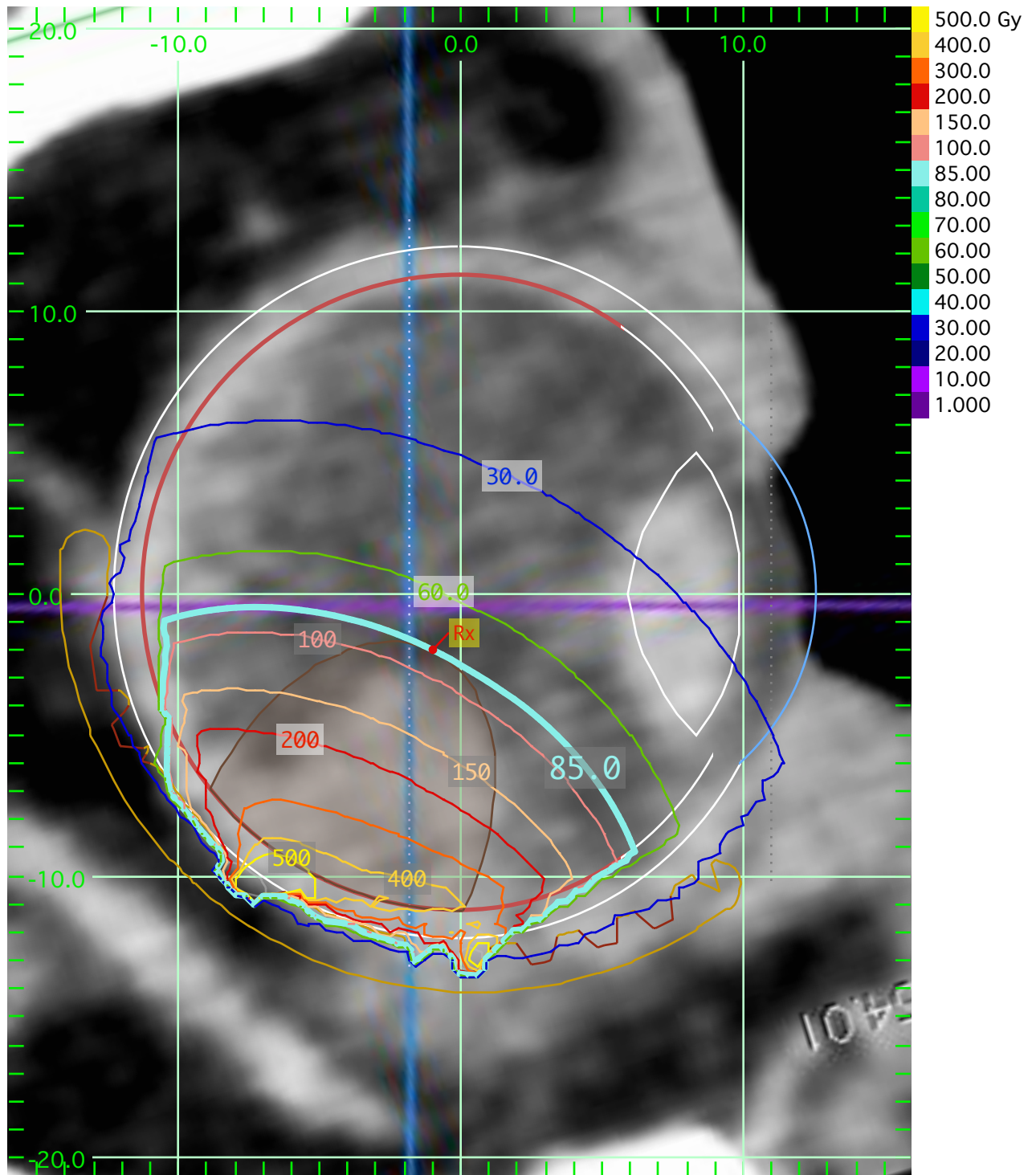
Posterior plan  
BACK (convex view)



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# Plaque Simulator Isodose Plot

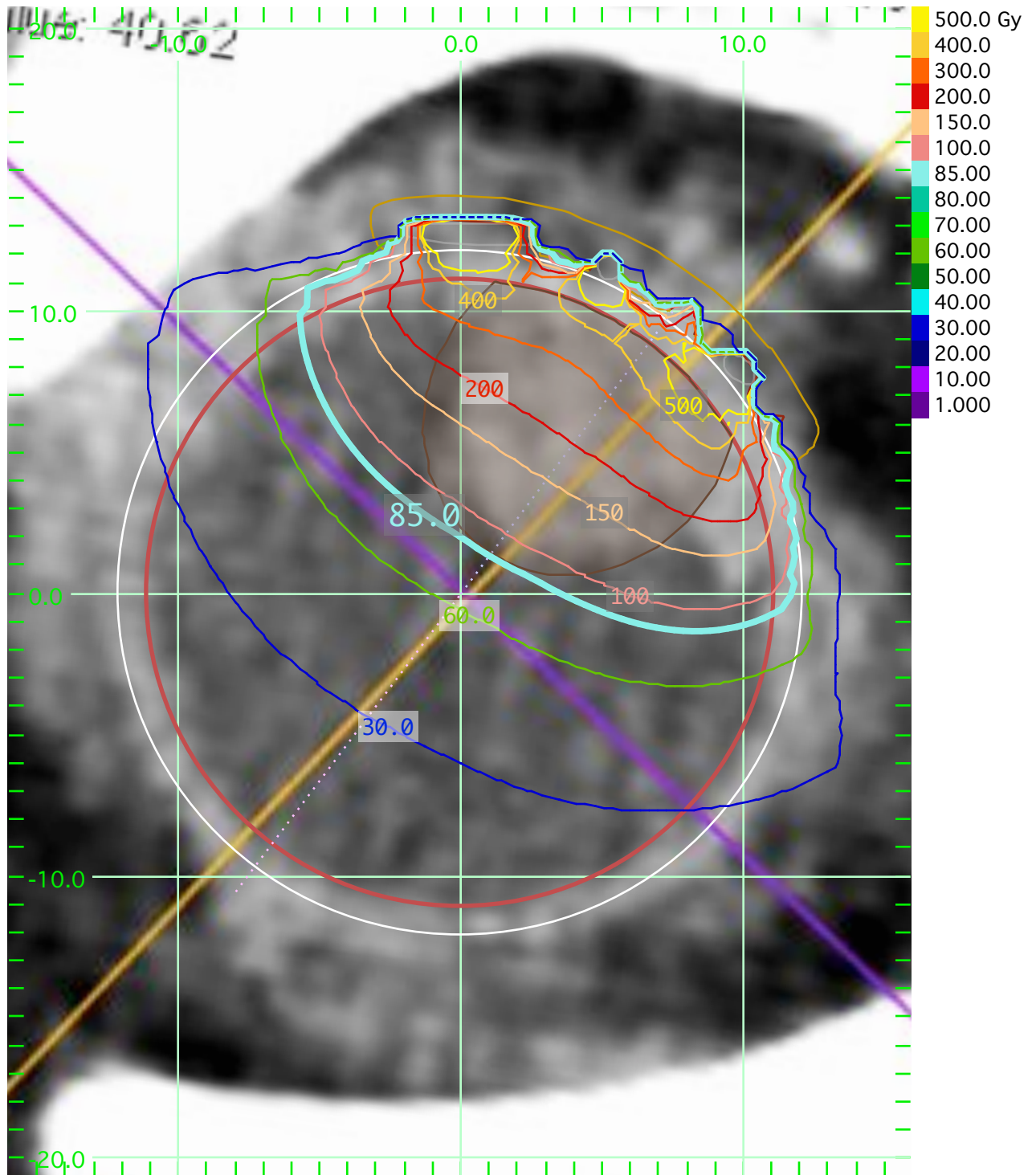
Markers	1 mm
Prescribed (Rx) dose	85.00 Gy to T1 T1 Apex @ 9.00 mm
Dose matrix set	1
Meridian plane longitudes	323.0° & 143.0°
Dose matrix maximum	3528.32 Gy



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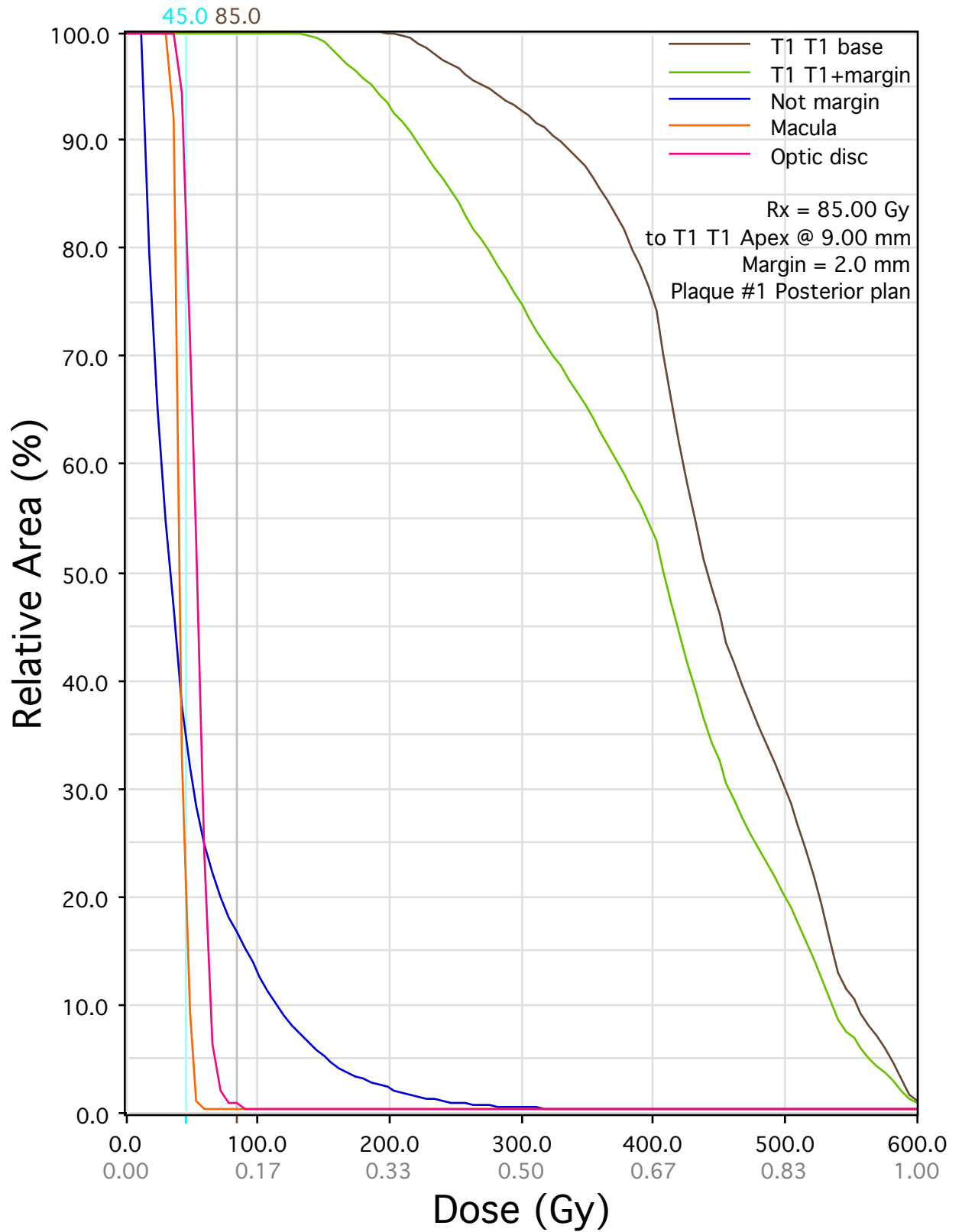
# Plaque Simulator Isodose Plot

Markers	1 mm
Prescribed (Rx) dose	85.00 Gy to T1 T1 Apex @ 9.00 mm
Dose matrix set	1
Equatorial plane offset	-1.8 mm
Dose matrix maximum	6820.48 Gy





# Plaque Simulator Retina Dose-Area Histogram



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# Plaque Simulator QA Check (isotropic point source in water)

Plaque #1 Posterior plan, implant 11/28/11 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)

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
1	empty					3.525	4.153	-8.517	9.793			----
2	empty					2.735	-3.503	-7.869	9.211			----
3	empty					1.280	-4.176	-4.977	8.030			----
4	empty					0.855	-4.582	-3.329	7.651			----
5	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.620	-4.863	-1.627	7.432	1.031	12.581	----
6	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.576	-5.017	0.175	7.391	1.032	12.729	----
7	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.758	-5.122	1.864	7.562	1.030	12.136	----
8	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	1.169	-5.089	3.698	7.932	1.026	10.985	----
9	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	1.762	-4.977	5.338	8.440	1.020	9.650	----
10	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	2.586	-4.837	6.908	9.098	1.012	8.242	----
11	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	3.692	-4.820	8.348	9.912	1.001	6.870	----
12	empty					5.124	-4.616	9.809	10.876			----
13	empty					6.504	-4.008	11.013	11.731			----
14	empty					7.872	-3.308	11.930	12.521			----
15	empty					-0.176	0.000	-2.442	6.641			----
16	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	2.023	0.000	7.686	8.654	1.017	9.155	----
17	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	-0.107	0.000	2.786	6.713	1.039	15.542	----
18	empty					7.872	3.308	11.930	12.521			----
19	empty					6.504	4.008	11.013	11.731			----
20	empty					5.124	4.616	9.809	10.876			----
21	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	3.692	4.820	8.348	9.912	1.001	6.870	----
22	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	2.586	4.837	6.908	9.098	1.012	8.242	----
23	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	1.762	4.977	5.338	8.440	1.020	9.650	----
24	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	1.169	5.089	3.698	7.932	1.026	10.985	----
25	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.758	5.153	1.774	7.562	1.030	12.136	----
26	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.665	5.233	-0.183	7.475	1.031	12.433	----
27	IAAI	3.353mCi	1.27U/mCi	2057.14	0.981	0.797	5.133	-2.074	7.597	1.029	12.020	----
28	empty					1.180	4.856	-4.032	7.942			----
29	empty					1.826	4.553	-5.828	8.493			----
30	empty					5.899	0.000	11.364	11.364			----
QA_Point Dose = 164.62										QA_Check Dose = 170.23	----	
										Point / Check = 0.97		

Posterior plan



# Plaque Simulator Setup

