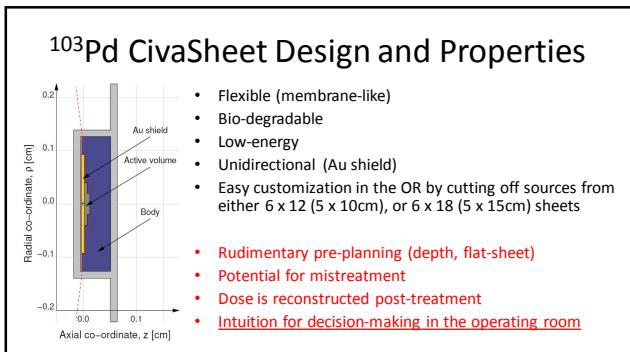
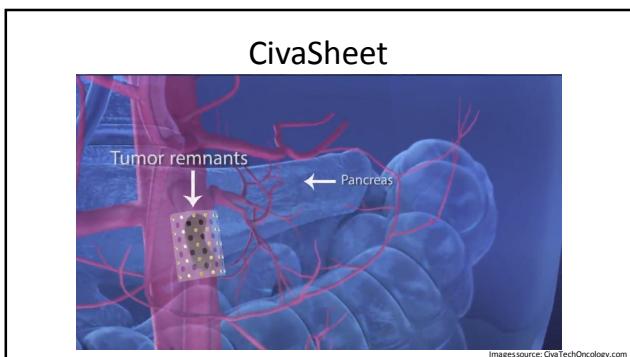


**CivaSheet pre-planning, activity calculation
and
application on a curved surface**

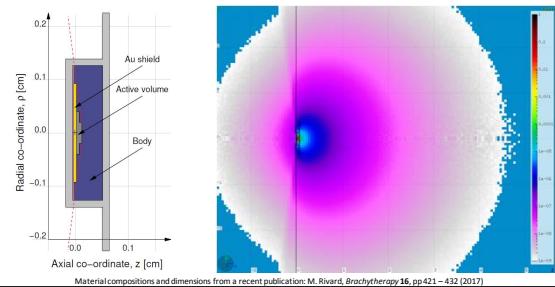
Iavor Veltchev,

Fox Chase Cancer Center, Philadelphia, PA, U.S.A.

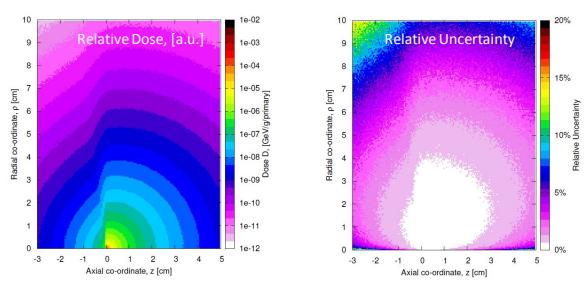
AAPM Spring Clinical Meeting, Orlando 2019



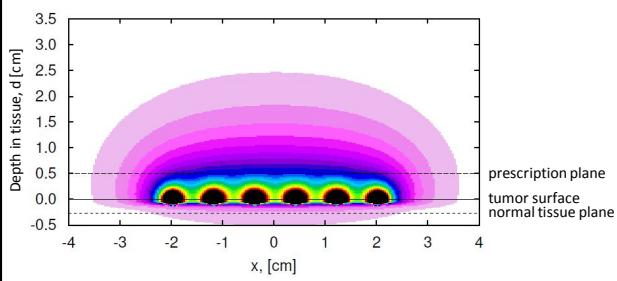
Monte-Carlo (FLUKA) Calculated Dose

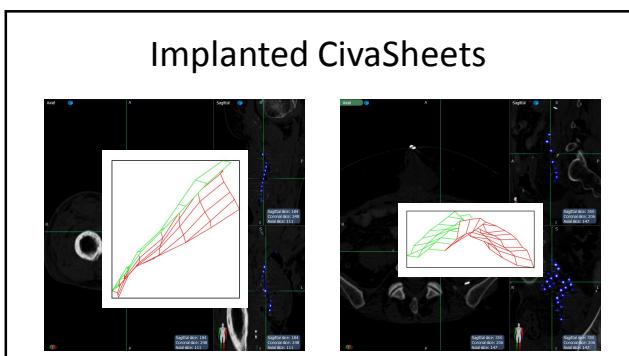
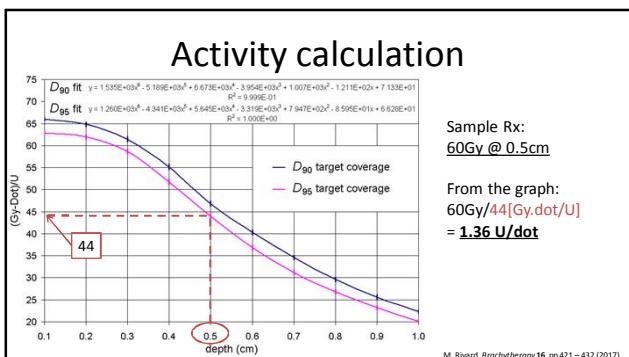
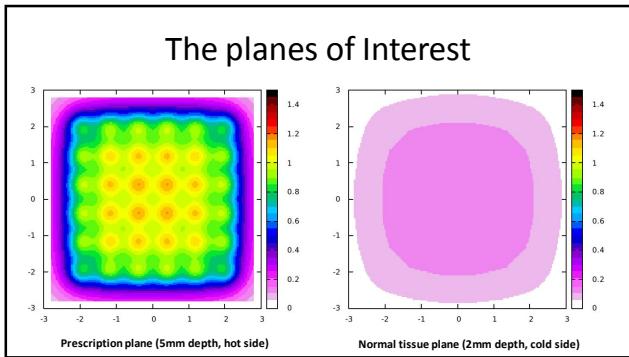


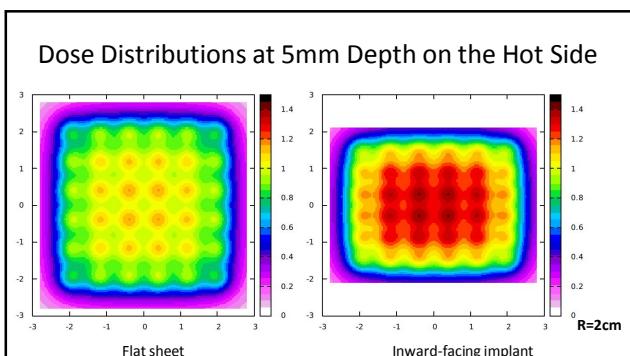
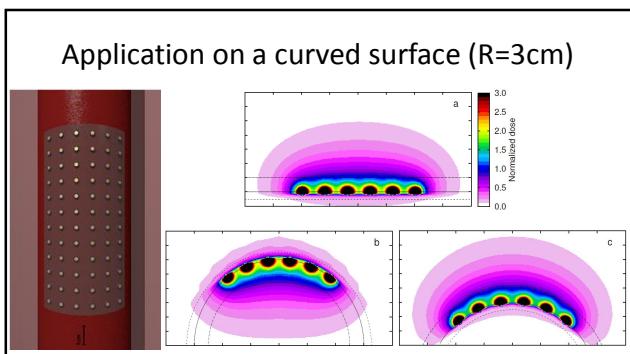
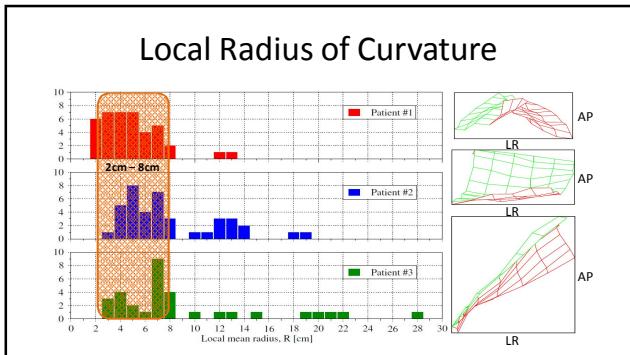
Cylindrically-Symmetric Dose Kernel

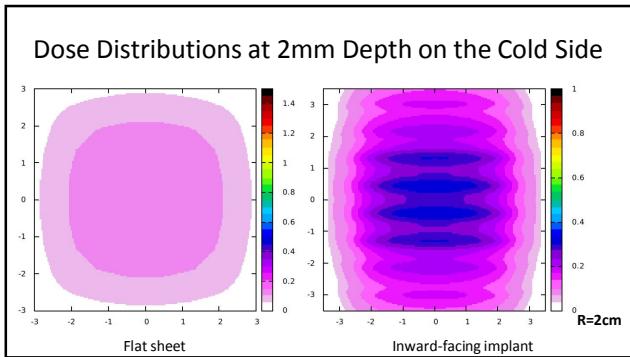


Application of CivaSheet on a Flat Surface









Dosimetric impact of tumor surface curvature

Radius of curvature R, [cm]	Mean normalized dose for a 6x12 CivaSheet implant			
	Inward-facing implant (convex tumor surface)		Outward-facing implant (concave tumor surface)	
	cold side	hot side	cold side	hot side
1.5	0.48(8)	1.27(7)	0.133(9)	0.78(4)
2	0.41(6) ↑140%	1.18(7) ↑18%	0.136(9) ↓20%	0.83(4) ↓17%
3	0.34(4)	1.11(6)	0.14(1)	0.89(5)
4	0.30(4)	1.08(6)	0.14(1)	0.92(5)
5	0.28(3)	1.06(6)	0.15(1)	0.94(5)
8	0.24(3)	1.04(6)	0.15(1)	0.96(5)
planar	0.17(1)	1.00(6)	0.17(1)	1.00(6)