Supplementary Table 1: Detection rates of MRI-TBx and TRUS-Bx and MRI-TBx relative sensitivities. a) biopsy naïve b) prior negative biopsy c) prior positive biopsy

a)

Identifier		N° of patient submitted to MRI-TBx	N° of patient submitted to TRUS-TBx	Overall PCa		MRI-TBx relative sensitivity	Insignificant PCa		MRI-TBx relative sensitivity	Significant PCa		MRI-TBx relative sensitivity
Author, ref	Year			MRI-TBx n/N (%)	TRUS-Bx n/N (%)		MRI-TBx n/N (%)	TRUS-Bx n/N (%)		MRI-TBx n/N (%)	TRUS-Bx n/N (%)	
Jambor et al, (35)	2015	39	39	NR	NR	NA	NR	NR	NA	22/28 (79)	24/28 (86)	0.92
Peltier et al, (36)	2015	110	110	57/83 (69)	50/83 (60)	1.14	6/23 (26)	18/23 (78)	0.33	51/52 (98)	32/52 (62)	1.59
Delongchamps et al, (37)	2016	108	108	61/75 (81)	66/75 (88)	0.92	9/16 (56)	11/16 (69)	0.82	52/64 (81)	50/64 (78)	1.04
De Gorski et al, (38)	2015	232	232	126/143 (88)	129/143 (90)	0.98	24/30 (80)	30/30 (100)	0.8	102/113 (90)	91/113 (81)	1.12
Mendhiratta et al, (39)	2015	382	382	166/234 (71)	188/234 (80)	0.88	49/102 (48)	86/102 (84)	0.57	117/132 (89)	102/132 (77)	1.15
Zhang et al, (40)	2017	224	224	99/113 (88)	78/113 (69)	1.27	24/33 (73)	29/33 (88)	0.83	75/80 (94)	49/80 (61)	1.53
Borkowetz et al, (41)	2017	133	133	65/70 (93)	55/70 (79)	1.18	11/11 (100)	8/11 (73)	1.38	54/59 (92)	47/59 (80)	1.15
Mariotti et al, (42)	2016	246	246	133/188 (71)	143/188 (76)	0.93	20/69 (29)	59/69 (86)	0.34	113/119 (95)	84/119 (71)	1.35
Filson et al, (43)	2016	273	273	145/176 (82)	160/176 (91)	0.91	45/60 (75)	73/60 (122)	0.62	100/116 (86)	87/116 (75)	1.15
Meng et al, (44)	2016	292	292	120/153 (78)	132/153 (86)	0.91	32/70 (46)	60/70 (86)	0.53	88/98 (90)	72/98 (73)	1.22

Hansen et al, (45)	2017	507	507	322/404 (80)	367/404 (91)	0.88	NR	NR	NA	249/305 (82)	264/305 (87)	0.94
Borkowetz et al, (46)	2017	214	214	100/111 (90)	91/111 (82)	1.10	17/17 (100)	17/17 (100)	1.00	81/94 (86)	74/94 (79)	1.09
Quentin et al, (47)	2014	128	128	68/78 (87)	68/78 (87)	1.00	10/22 (45)	14/22 (64)	0.71	58/67 (87)	54/67 (81)	1.07
Pokorny et al, (48)	2014	142	142	99/117 (85)	101/117 (86)	0.98	3/14 (21)	14/14 (100)	0.21	93/103 (90)	74/103 (72)	1.26

b)

Identifier				Overall PCa		MRI-TBx relative sensitivity	Insignificant PCa		MRI-TBx relative sensitivity	Significant PCa		MRI-TBx relative sensitivity
Author, ref	Year	N° of patient submitted to MRI-TBx	N° of patient submitted to TRUS-TBx	MRI-TBx n/N (%)	TRUS-Bx n/N (%)		MRI-TBx n/N (%)	TRUS-Bx n/N (%)		MRI-TBx n/N (%)	TRUS-Bx n/N (%)	
Boesen et al, (49)	2017	189	189	64/89 (72)	74/89 (83)	0.86	14/46 (30)	41/46 (89)	0.34	50/63 (79)	33/63 (52)	1.51
Hansen et al, (50)	2016	343	343	NR/209	NR/209	NA	NR/71	NR/71	NA	114/138 (83)	124/138 (90)	0.91
Brock et al, (51)	2015	144	144	32/74 (43)	63/74 (85)	0.51	5/24 (21)	22/24 (92)	0.23	27/50 (54)	41/50 (82)	0.66
Meng et al, (44)	2016	172	172	41/53 (77)	31/53 (58)	1.32	13/22 (59)	15/22 (68)	0.87	28/31 (90)	16/31 (52)	1.75
Mendhiratta et al, (52)	2015	161	161	32/47 (68)	30/47 (64)	1.06	8/21 (38)	15/21 (71)	0.53	24/26 (92)	15/26 (58)	1.60
Lian et al, (53)	2017	101	101	31/41 (76)	27/41 (66)	1.15	9/19 (47)	14/19 (74)	0.64	22/25 (88)	13/25 (52)	1.69
Filson et al, (43)	2016	265	265	83/110 (75)	84/110	0.99	23/41 (56)	41/41 (100)	0.56	60/70 (86)	43/70 (61)	1.39
Borkowetz et al, (54)	2015	195	195	85/102 (83)	62/102 (76)	1.37	NR	NR	NA	NR	NR	NA
Borkowetz et al, (41)	2017	445	445	175/215 (83)	142/215 (61)	1.23	36/50 (72)	36/50 (72)	1.00	139/165 (84)	106/165 (64)	1.31
Mariotti et al, (42)	2016	143	143	49/87 (56)	59/87 (68)	0.83	17/49 (35)	41/49 (84)	0.41	32/38 (84)	18/38 (47)	1.78

c)

Identifier			Overall PCa		MRI-TBx relative sensitivity	Gleason Score 3+3		MRI-TBx relative sensitivity	Gleason Score ≥ 3+4		MRI-TBx relative sensitivity
Author, ref	Year	N° of patient submitted to MRI-TBx	N° of patient submitted to TRUS-TBx	MRI-TBx	TRUS-Bx		MRI-TBx	TRUS-Bx		MRI-TBx	TRUS-Bx	
Meng et al, (44)	2016	137	137	72/97 (74)	75/97 (77)	0.96	30/50 (60)	46/50 (92)	0.65	42/53 (79)	29/53 (55)	1.45
Tran et al, (55)	2016	207	207	130/183 (71)	176/183 (96)	0.74	58/122 (48)	100/122 (82)	0.58	72/101 (71)	76/101 (75)	0.95
Filson et al, (43)	2016	287	287	131/198 (66)	164/198 (83)	0.80	64/105 (61)	93/105 (89)	0.69	67/102 (66)	70/102 (69)	0.96
Ma et al, (56)	2017	103	103	29/77 (38)	66/77 (86)	0.44	8/52 (15)	45/52 (87)	0.18	7/25 (28)	21/25 (84)	0.33
Pessoa et al, (57)	2017	87	87	65/87 (75)	66/87 (76)	0.98	16/33 (48)	27/33 (82)	0.59	49/54 (91)	39/54 (72)	1.26
Frye et al, (58)	2017	128	128	NR	NR	NA	NR	NR	NA	14/14 (100)	12/14 (86)	1.17
Borkowetz et al, (59)	2018	83	83	46/65 (71)	52/65 (80)	0.88	14/25 (56)	21/25 (84)	0.67	32/40 (80)	31/40 (78)	1.03
Okoro et al, (60)	2015	50	50	50/50 (100)	37/50 (74)	1.35	NR	NR	NA	NR	NR	NA
Lai et al, (61)	2017	76	76	NR	NR	NA	NR	NR	NA	10/10 (100)	3/10 (30)	3.30
Pepe et al, (62)	2017	26	26	12/17 (71)	12/17 (71)	1.00	0/5 (0)	5/5 (100)	0.0	12/12 (100)	7/12 (58)	1.71