# Summary of the curatedPCaData-package

### Teemu Daniel Laajala

### $\mathrm{June}\ 4,\ 2021$

#### Contents

1	Sum	mary	of all $MA$	E-c	obj	ec	$\mathbf{ts}$																		2
	1.1	End-po	oints																						2
		1.1.1	Gleason g	$rad\epsilon$	es .																				2
		1.1.2	Overall S																						2
		1.1.3	Recurrence																						3
		1.1.4	Other end	-poi	ints	· .																			3
2	Indi	vidual	MAE-su	mm	ari	ies																			3
	2.1	abida .																							4
	2.2	barbier	ri																						5
	2.3	chandr	an																						6
	2.4		h																						8
	2.5		ymus																						9
	2.6																								10
	2.7	_																							11
	2.8	_																							13
	2.9		franco .																						14
	2.10																								15
																									17
																									18
																									19
		_																							21
			9																						$\overline{22}$
																									24
		_																							25
			mmary of																						for
C111			e cancer d																						
		-	bjects are													-			Θ,	•	01		,,,	٠.	0.0.
		0												•											
> 1	utils	:::data	(package	="cu	ıra	tec	dP(	CaD	at)	a	"):	\$r	es	ul	t	[,	c(	"I	te	m'	١,	"	Ti	tl	e")]
	I	tem			Tit	tle	Э																		
[:	1,] "	mae_ab	ida"		"Al	oio	la	et	· a	al.	. 1	MΑ	E-	ob	jε	ect	t"								
[:	2,] "	mae_ba	rbieri"		"Ва	arb	oie	ri	. 1	1AI	Ξ-α	ob	jе	ct	; "										
[:	3,] "	mae_ch	andran"		"Ва	arv	,ic	k	MA	Æ-	-01	bј	ec	t"											
[4	4,] "	mae_fr	eiedrich"		"Fı	rie	edr	ric	h	et		al		MA	E-	-ol	oje	ec	t"						
[!	5,] "	mae_hi	eronymus'	ı	"H:	iei	cor	ıym	us	s 6	et	a	1.	M	ÍAE	E-0	ob.	jе	ct	"					

```
[7,] "mae_igc"
 [8,] "mae_kim"
 [9,] "mae_kunderfranco" "Kunderfranco et al. MAE-object"
[10,] "mae_ren"
                         "Ren 2017 MAE-object"
[11,] "mae_sun"
                         "Sun et al. MAE-object"
[12,] "mae_taylor"
                         "Taylor et al. MAE-object"
[13,] "mae_tcga"
                         "TCGA MAE-object"
[14,] "mae_true"
                         "True et al. MAE-object"
[15,] "mae_wallace"
                         "Wallace et al. MAE-object"
[16,] "mae_wang"
[17,] "mae_weiner"
                         "MultiAssayExperiment object containing gene expression (gex),"
```

They can be accessed via syntax  $curatedPCaData::mae\_name$  or by first calling library("curatedPCaData") and then calling directly the objects  $mae\_name$  in the workspace environment.

"ICGC CA MAE-object"

#### 1 Summary of all MAE-objects

Summary table of all MAE-objects and availability of most important variables.

#### 1.1 End-points

[6,] "mae\_icgcca"

#### 1.1.1 Gleason grades

Gleason grade distribution over studies:

	5	6	7	8	9	10	Other	N/A
abida	-	-	-	_	-	-	0 (0%)	444 (10
barbieri	-	-	-	-	-	-	$112 \ (100\%)$	0 (0%)
chandran	6(1%)	46 (9%)	85~(17%)	21 (4%)	35~(7%)	-	3 (1%)	307 (61
friedrich	2(1%)	47~(18%)	54 (21%)	68~(27%)	43~(17%)	2(1%)	0 (0%)	39 (15%
hieronymus	-	16 (15%)	$78 \ (75\%)$	4 (4%)	6 (6%)	-	0 (0%)	0 (0%)
icgcca	-	12~(6%)	58 (27%)	5(2%)	-	-	0 (0%)	138 (65)
igc	-	27 (33%)	40 (48%)	13~(16%)	-	-	0 (0%)	3(4%)
kim	-	=	-	_	-	-	$266 \ (100\%)$	0 (0%)
kunderfranco	1 (1%)	9 (13%)	32 (48%)	6(9%)	5 (7%)	-	0 (0%)	14 (21%
ren	-	=	-	_	-	-	65 (100%)	0 (0%)
sun	-	=	-	_	-	-	0 (0%)	79 (100
taylor	2(1%)	104~(48%)	77 (35%)	19 (9%)	15~(7%)	-	0 (0%)	1 (0%)
tcga	-	45 (9%)	244 (49%)	64~(13%)	137~(28%)	4(1%)	0 (0%)	0 (0%)
true	-	4~(14%)	20~(69%)	1 (3%)	4 (14%)	-	0 (0%)	0 (0%)
wallace	2(2%)	$21\ (25\%)$	57~(69%)	1 (1%)	2(2%)	-	0 (0%)	0 (0%)
wang	-	-	-	-	-	-	0 (0%)	148 (10
weiner	-	-	-	_	-	-	0 (0%)	838 (10

#### 1.1.2 Overall Survival

Quantiles [min, 25%, median, 75%, max] for follow-up times and 0 (no event) and 1 (event) for survival:

	0 (no event)	1 (event)	N/A (event)	Time (d)	N/A (time)
abida	52 (12%)	84 (19%)	308 (69%)	[50,321,595,883,2070]	308 (69%)
barbieri	-	-	112 (100%)	-	112 (100%)
chandran	-	-	503 (100%)	-	503 (100%)
friedrich	230 (90%)	25~(10%)	0 (0%)	[641,3005,3614,4301,6771]	91 (36%)
hieronymus	96 (92%)	8 (8%)	0 (0%)	[295, 1575, 2139, 2895, 3758]	0 (0%)
icgcca	198 (93%)	8 (4%)	7 (3%)	[1460,2190,2920,3650,4745]	1 (0%)
igc	-	-	83 (100%)	-	83 (100%)
kim	-	_	266 (100%)	-	266 (100%)
kunderfranco	-	-	67 (100%)	-	67 (100%)
ren	-	_	65 (100%)	-	65 (100%)
sun	-	_	79 (100%)	-	79 (100%)
taylor	-	_	218 (100%)	-	218 (100%)
tcga	484 (98%)	10(2%)	0 (0%)	[23,525,926,1466,5034]	0 (0%)
true	-	-	29 (100%)	-	29 (100%)
wallace	-	-	83 (100%)	-	83 (100%)
wang	-	_	148 (100%)	-	148 (100%)
weiner	-	-	838 (100%)	-	838 (100%)

#### 1.1.3 Recurrence

Quantiles [min, 25%, median, 75%, max] for follow-up times and counts for 0 (no event) and 1 (event) for recurrence:

	0 (no event)	1 (event)	N/A (event)	Time (d)	N/A (time)
abida	-	-	444 (100%)	-	444 (100%)
barbieri	-	-	$112 \ (100\%)$	-	$112 \ (100\%)$
chandran	-	-	$503 \ (100\%)$	-	$503 \ (100\%)$
friedrich	-	-	255 (100%)	-	255 (100%)
hieronymus	-	-	$104 \ (100\%)$	-	$104 \ (100\%)$
icgcca	-	-	$213\ (100\%)$	-	$213\ (100\%)$
igc	-	-	83 (100%)	-	83 (100%)
kim	-	-	$266 \ (100\%)$	-	$266 \ (100\%)$
kunderfranco	-	-	67 (100%)	-	67 (100%)
ren	-	-	65 (100%)	-	65 (100%)
sun	40~(51%)	39~(49%)	0 (0%)	-	79 (100%)
taylor	137~(63%)	61~(28%)	20 (9%)	[3,717,1386,1974,4909]	20 (9%)
tcga	397 (80%)	91 (18%)	6 (1%)	$[23,\!427,\!823,\!1376,\!5034]$	6 (1%)
true	-	-	29 (100%)	-	29 (100%)
wallace	-	-	83 (100%)	-	83 (100%)
wang	-	-	$148 \ (100\%)$	-	$148 \ (100\%)$
weiner	-	-	838 (100%)	-	838 (100%)

#### 1.1.4 Other end-points

TODO, for example the newer grading system available in Weiner et al.

#### 2 Individual MAE-summaries

Looping over and summarizing the datasets:

### 2.1 abida

	Instances	Missingness
overall_survival_status	NA: 308 (69%);1: 84 (19%);0: 52 (12%)	n=308 (69%)
days_to_overall_survival	[50.26,321.04,594.78,882.8,2069.65], NA	n=308 (69%)
	n=308	
age_at_initial_diagnosis	[38,56,61,66,89], NA n=51	n=51 (11%)
year_diagnosis	N/A	n=444 (100%)
gleason_grade	N/A	n=444 (100%)
gleason_major	N/A	n=444 (100%)
gleason_minor	N/A	n=444 (100%)
source_of_gleason	N/A	n=444 (100%)
grade_group	N/A	n=444 (100%)
$T_{-}$ pathological	N/A	n=444 (100%)
$T_substage\_pathological$	N/A	n=444 (100%)
T_clinical	N/A	n=444 (100%)
T_substage_clinical	N/A	n=444 (100%)
ERG_fusion_CNA	N/A	n=444 (100%)
ERG_fusion_IHC	N/A	n=444 (100%)
ERG_fusion_GEX	N/A	n=444 (100%)
disease_specific_recurrence_status	N/A	n=444 (100%)
days_to_disease_specific_recurrence	N/A	n=444 (100%)
metastasis_occurrence_status	N/A	n=444 (100%)
days_to_metastatic_occurrence	N/A	n=444 (100%)
psa	[0.2,5.7,14.04,52.84,3118], NA n=91	-
race	N/A	n=444 (100%)
smoking_status	N/A	n=444 (100%)
extraprostatic_extension	N/A	n=444 (100%)
perineural_invasion	N/A	n=444 (100%)
seminal_vesicle_invasion	N/A	n=444 (100%)
angiolymphatic_invasion	N/A	n=444 (100%)
androgen_ablation	N/A	n=444 (100%)
capsule	N/A	n=444 (100%)
M_stage	N/A	n=444 (100%)
M_substage	N/A	n=444 (100%)
other_patient	N/A	n=444 (100%)
sample_type	N/A	n=444 (100%)
genomic_alterations	N/A	n=444 (100%)
tumor_margins_positive	N/A	n=444 (100%)
tissue_source	LN: 167 (38%);Bone: 160 (36%);Liver: 64	-
	(14%);	(10001)
metastatic_site	N/A	n=444 (100%)
microdissected	N/A	n=444 (100%)
frozen_ffpe	N/A	n=444 (100%)
other_feature	N/A	n=444 (100%)
batch	N/A	n=444 (100%)
other_sample	N/A	n=444 (100%)
tumor_purity_pathology	N/A	n=444 (100%)
tumor_purity_demix	N/A	n=444 (100%)
tumor_purity_absolute	N/A	n=444 (100%)

zone_of_origin	N/A	n=444 (100%)
zone_of_origin_estimated	N/A	n=444 (100%)
immune_infiltration	N/A	n=444 (100%)
mutational_signatures	N/A	n=444 (100%)
neoantigen_load	N/A	n=444 (100%)
AR_activity	N/A	n=444 (100%)
N_stage	N/A	n=444 (100%)
N_substage	N/A	n=444 (100%)
therapy_radiation_initial	N/A	n=444 (100%)
therapy_radiation_salvage	N/A	n=444 (100%)
therapy_surgery_initial	N/A	n=444 (100%)
therapy_hormonal_initial	N/A	n=444 (100%)
other_treatment	N/A	n=444 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

### 2.2 barbieri

	Instances	Missingness
overall_survival_status	N/A	n=112 (100%)
days_to_overall_survival	N/A	n=112 (100%)
age_at_initial_diagnosis	[34, 58, 62.5, 68, 77]	-
year_diagnosis	N/A	n=112 (100%)
gleason_grade	NA: 112 (100%)	-
gleason_major	3: 71 (63%);4: 41 (37%)	-
gleason_minor	4: 66 (59%);3: 42 (38%);5: 4 (4%)	-
source_of_gleason	N/A	n=112 (100%)
grade_group	3+4: $58 (52%);4+3$ : $29 (26%);<=6$ : $13$	-
	(12%);	
T_pathological	N/A	n=112 (100%)
$T_substage\_pathological$	N/A	n=112 (100%)
T_clinical	3: 68 (61%);2: 44 (39%)	-
T_substage_clinical	a: 53 (47%);c: 39 (35%);b: 20 (18%)	-
ERG_fusion_CNA	N/A	n=112 (100%)
ERG_fusion_IHC	N/A	n=112 (100%)
ERG_fusion_GEX	N/A	n=112 (100%)
disease_specific_recurrence_status	N/A	n=112 (100%)
days_to_disease_specific_recurrence	N/A	n=112 (100%)
metastasis_occurrence_status	N/A	n=112 (100%)
days_to_metastatic_occurrence	N/A	n=112 (100%)
psa	[2.7,5.55,7.8,10.9,31.5], NA n=1	n=1 (1%)
race	N/A	n=112 (100%)
smoking_status	N/A	n=112 (100%)
extraprostatic_extension	N/A	n=112 (100%)
perineural_invasion	N/A	n=112 (100%)
seminal_vesicle_invasion	N/A	n=112 (100%)
angiolymphatic_invasion	N/A	n=112 (100%)
androgen_ablation	N/A	n=112 (100%)
capsule	N/A	n=112 (100%)

M_stage	N/A	n=112 (100%)
M_substage	N/A	n=112 (100%)
other_patient	N/A	n=112 (100%)
sample_type	N/A	n=112 (100%)
genomic_alterations	N/A	n=112 (100%)
tumor_margins_positive	N/A	n=112 (100%)
tissue_source	N/A	n=112 (100%)
metastatic_site	Feature not found in MAE	=
microdissected	N/A	n=112 (100%)
frozen_ffpe	N/A	n=112 (100%)
other_feature	N/A	n=112 (100%)
batch	N/A	n=112 (100%)
other_sample	N/A	n=112 (100%)
tumor_purity_pathology	N/A	n=112 (100%)
tumor_purity_demix	N/A	n=112 (100%)
tumor_purity_absolute	N/A	n=112 (100%)
zone_of_origin	N/A	n=112 (100%)
zone_of_origin_estimated	N/A	n=112 (100%)
immune_infiltration	N/A	n=112 (100%)
mutational_signatures	N/A	n=112 (100%)
neoantigen_load	N/A	n=112 (100%)
AR_activity	N/A	n=112 (100%)
N_stage	N/A	n=112 (100%)
N_substage	N/A	n=112 (100%)
therapy_radiation_initial	N/A	n=112 (100%)
therapy_radiation_salvage	N/A	n=112 (100%)
therapy_surgery_initial	N/A	n=112 (100%)
therapy_hormonal_initial	N/A	n=112 (100%)
other_treatment	N/A	n=112 (100%)
psa_category	Feature not found in MAE	_
genome_altered	Feature not found in MAE	-

## 2.3 chandran

	Instances	Missingness
overall_survival_status	N/A	n=503 (100%)
days_to_overall_survival	N/A	n=503 (100%)
age_at_initial_diagnosis	[13,20,24,48,63], NA n=452	n=452 (90%)
year_diagnosis	N/A	n=503 (100%)
gleason_grade	[4,6,7,8,9], NA n=307	n=307 (61%)
gleason_major	N/A	n=503 (100%)
gleason_minor	N/A	n=503 (100%)
source_of_gleason	N/A	n=503 (100%)
grade_group	N/A	n=503 (100%)
T_pathological	[2,2,3,3,4], NA n=307	n=307 (61%)
T_substage_pathological	NA: 310 (62%);b: 102 (20%);a: 91 (18%)	n=310 (62%)
T_clinical	N/A	n=503 (100%)
T_substage_clinical	N/A	n=503 (100%)
ERG_fusion_CNA	N/A	n=503 (100%)

ERG_fusion_IHC	N/A	n=503 (100%)
ERG_fusion_GEX	N/A	n=503 (100%)
disease_specific_recurrence_status	N/A	n=503 (100%)
days_to_disease_specific_recurrence	N/A	n=503 (100%)
metastasis_occurrence_status	N/A	n=503 (100%)
days_to_metastatic_occurrence	N/A	n=503 (100%)
psa	N/A	n=503 (100%)
race	NA: 452 (90%);caucasian: 45	n=452 (90%)
Tacc	(9%);african_american: 6 (1%)	102 (5070)
smoking_status	N/A	n=503 (100%)
extraprostatic_extension	N/A	n=503 (100%)
perineural_invasion	N/A	n=503 (100%)
seminal_vesicle_invasion	N/A	n=503 (100%)
angiolymphatic_invasion	N/A	n=503 (100%)
androgen_ablation	N/A	n=503 (100%)
capsule	N/A	n=503 (100%)
M_stage	N/A	n=503 (100%)
M_substage	N/A	n=503 (100%)
other_patient	N/A	n=503 (100%)
sample_type	primary: 196 (39%);adjacentnormal: 181	-
r Ur	(36%);metastatic: 75 (15%);	
genomic_alterations	N/A	n=503 (100%)
tumor_margins_positive	N/A	n=503 (100%)
tissue_source	N/A	n=503 (100%)
metastatic_site	NA: 428 (85%);lymph_node: 45 (9%);liver: 15	n=428 (85%)
	(3%);	, ,
microdissected	N/A	n=503 (100%)
frozen_ffpe	N/A	n=503 (100%)
other_feature	N/A	n=503 (100%)
batch	N/A	n=503 (100%)
other_sample	N/A	n=503 (100%)
tumor_purity_pathology	N/A	n=503 (100%)
tumor_purity_demix	N/A	n=503 (100%)
tumor_purity_absolute	N/A	n=503 (100%)
zone_of_origin	N/A	n=503 (100%)
zone_of_origin_estimated	N/A	n=503 (100%)
immune_infiltration	N/A	n=503 (100%)
mutational_signatures	N/A	n=503 (100%)
neoantigen_load	N/A	n=503 (100%)
AR_activity	N/A	n=503 (100%)
N_stage	N/A	n=503 (100%)
N_substage	N/A	n=503 (100%)
therapy_radiation_initial	N/A	n=503 (100%)
therapy_radiation_salvage	N/A	n=503 (100%)
therapy_surgery_initial	N/A	n=503 (100%)
therapy_hormonal_initial	N/A	n=503 (100%)
other_treatment	N/A	n=503 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

#### 2.4 friedrich

	Instances	Missingness
overall_survival_status	0: 230 (90%);1: 25 (10%)	-
days_to_overall_survival	[641,3004.75,3614.5,4301,6771], NA n=91	n=91 (36%)
age_at_initial_diagnosis	N/A	n=255 (100%)
year_diagnosis	N/A	n=255 (100%)
gleason_grade	[5,7,8,8,10], NA n=39	n=39 (15%)
gleason_major	N/A	n=255 (100%)
gleason_minor	N/A	n=255 (100%)
source_of_gleason	N/A	n=255 (100%)
grade_group	N/A	n=255 (100%)
T_pathological	N/A	n=255 (100%)
T_substage_pathological	N/A	n=255 (100%)
T_clinical	N/A	n=255 (100%)
T_substage_clinical	N/A	n=255 (100%)
ERG_fusion_CNA	N/A	n=255 (100%)
ERG_fusion_IHC	N/A	n=255 (100%)
ERG_fusion_GEX	N/A	n=255 (100%)
disease_specific_recurrence_status	N/A	n=255 (100%)
days_to_disease_specific_recurrence	N/A	n=255 (100%)
metastasis_occurrence_status	N/A	n=255 (100%)
days_to_metastatic_occurrence	N/A	n=255 (100%)
psa	N/A	n=255 (100%)
race	caucasian: 255 (100%)	-
smoking_status	N/A	n=255 (100%)
extraprostatic_extension	N/A	n=255 (100%)
perineural_invasion	N/A	n=255 (100%)
seminal_vesicle_invasion	N/A	n=255 (100%)
angiolymphatic_invasion	N/A	n=255 (100%)
androgen_ablation	N/A	n=255 (100%)
capsule	N/A	n=255 (100%)
M_stage	N/A	n=255 (100%)
M_substage	N/A	n=255 (100%)
other_patient	N/A	n=255 (100%)
sample_type	primary: 164 (64%);adjacentnormal: 52 (20%);BPH: 39 (15%)	-
genomic_alterations	N/A	n=255 (100%)
tumor_margins_positive	N/A	n=255 (100%)
tissue_source	prostatectomy: 216 (85%);cystoprostatec-	-
	tomy: 28 (11%);TURP: 11 (4%)	
metastatic_site	Feature not found in MAE	-
microdissected	1: 255 (100%)	-
frozen_ffpe	frozen: 255 (100%)	-
other_feature	N/A	n=255 (100%)
batch	N/A	n=255 (100%)
other_sample	N/A	n=255 (100%)
tumor_purity_pathology	N/A	n=255 (100%)
tumor_purity_demix	N/A	n=255 (100%)
tumor_purity_absolute	N/A	n=255 (100%)

	1 -	
zone_of_origin	N/A	n=255 (100%)
zone_of_origin_estimated	N/A	n=255 (100%)
immune_infiltration	N/A	n=255 (100%)
mutational_signatures	N/A	n=255 (100%)
neoantigen_load	N/A	n=255 (100%)
AR_activity	N/A	n=255 (100%)
N_stage	N/A	n=255 (100%)
N_substage	N/A	n=255 (100%)
therapy_radiation_initial	N/A	n=255 (100%)
therapy_radiation_salvage	N/A	n=255 (100%)
therapy_surgery_initial	N/A	n=255 (100%)
therapy_hormonal_initial	N/A	n=255 (100%)
other_treatment	N/A	n=255 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

## 2.5 hieronymus

	Instances	Missingness
overall_survival_status	0: 96 (92%);1: 8 (8%)	-
days_to_overall_survival	[294.83, 1575.33, 2139.07, 2895.21, 3757.6]	_
age_at_initial_diagnosis	[41.07, 53.25, 58.19, 63.06, 75.63]	_
year_diagnosis	N/A	n=104 (100%)
gleason_grade	[6, 7, 7, 7, 9]	_` _
gleason_major	3: 72 (69%);4: 30 (29%);5: 2 (2%)	-
gleason_minor	4: 60 (58%);3: 39 (38%);5: 5 (5%)	-
source_of_gleason	prostatectomy: 104 (100%)	-
grade_group	3+4: 56 (54%); $4+3$ : 22 (21%); $<=6$ : 16 (15%);	n=4 (4%)
$T_{-}$ pathological	2: 54 (52%);3: 49 (47%);4: 1 (1%)	_
T_substage_pathological	b: 54 (52%);a: 44 (42%);c: 4 (4%);	n=2 (2%)
T_clinical	1: 61 (59%);2: 41 (39%);3: 2 (2%)	_` ´
T_substage_clinical	c: 67 (64%);a: 18 (17%);b: 18 (17%);	n=1 (1%)
ERG_fusion_CNA	N/A	n=104 (100%)
ERG_fusion_IHC	N/A	n=104 (100%)
ERG_fusion_GEX	N/A	n=104 (100%)
disease_specific_recurrence_status	N/A	n=104 (100%)
days_to_disease_specific_recurrence	N/A	n=104 (100%)
metastasis_occurrence_status	0: 101 (97%);1: 3 (3%)	-
days_to_metastatic_occurrence	[121.25, 1455.26, 1989.62, 2752.45, 3694.65]	-
psa	[1,4.35,5.3,8,56.24], NA n=1	n=1 (1%)
race	N/A	n=104 (100%)
smoking_status	N/A	n=104 (100%)
extraprostatic_extension	0: 52 (50%);1: 52 (50%)	-
perineural_invasion	N/A	n=104 (100%)
seminal_vesicle_invasion	0: 90 (87%);1: 14 (13%)	
angiolymphatic_invasion	N/A	n=104 (100%)
androgen_ablation	N/A	n=104 (100%)
capsule	N/A	n=104 (100%)

M_stage	N/A	n=104 (100%)
M_substage	N/A	n=104 (100%)
other_patient	N/A	n=104 (100%)
sample_type	N/A	n=104 (100%)
genomic_alterations	N/A	n=104 (100%)
tumor_margins_positive	N/A	n=104 (100%)
tissue_source	N/A	n=104 (100%)
metastatic_site	Feature not found in MAE	
microdissected	N/A	n=104 (100%)
frozen_ffpe	N/A	n=104 (100%)
other_feature	N/A	n=104 (100%)
batch	N/A	n=104 (100%)
other_sample	N/A	n=104 (100%)
tumor_purity_pathology	N/A	n=104 (100%)
tumor_purity_demix	N/A	n=104 (100%)
tumor_purity_absolute	N/A	n=104 (100%)
zone_of_origin	N/A	n=104 (100%)
zone_of_origin_estimated	N/A	n=104 (100%)
immune_infiltration	N/A	n=104 (100%)
mutational_signatures	N/A	n=104 (100%)
neoantigen_load	N/A	n=104 (100%)
AR_activity	N/A	n=104 (100%)
N_stage	N/A	n=104 (100%)
N_substage	N/A	n=104 (100%)
therapy_radiation_initial	N/A	n=104 (100%)
therapy_radiation_salvage	N/A	n=104 (100%)
therapy_surgery_initial	N/A	n=104 (100%)
therapy_hormonal_initial	N/A	n=104 (100%)
other_treatment	N/A	n=104 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

## 2.6 icgcca

	Instances	Missingness
overall_survival_status	0: 198 (93%);1: 8 (4%);NA: 7 (3%)	n=7 (3%)
days_to_overall_survival	[1460,2190,2920,3650,4745], NA n=1	n=1 (0%)
age_at_initial_diagnosis	[42, 58, 62, 66, 74]	-
year_diagnosis	N/A	n=213 (100%)
gleason_grade	[6,7,7,7,8], NA n=138	n=138 (65%)
gleason_major	NA: 138 (65%);3: 49 (23%);4: 26 (12%)	n=138 (65%)
gleason_minor	NA: 138 (65%);4: 42 (20%);3: 33 (15%)	n=138~(65%)
source_of_gleason	N/A	n=213 (100%)
$\operatorname{grade\_group}$	NA: 138 (65%);3+4: 37 (17%);4+3: 21 (10%);	n=138 (65%)
T_pathological	N/A	n=213 (100%)
$T_substage\_pathological$	N/A	n=213 (100%)
T_clinical	NA: 104 (49%);1: 56 (26%);2: 53 (25%)	n=104 (49%)
T_substage_clinical	NA: 104 (49%);c: 55 (26%);a: 30 (14%);	n=104 (49%)

ERG_fusion_CNA	N/A	n=213 (100%)
ERG_fusion_IHC	N/A	n=213 (100%)
ERG_fusion_GEX	N/A	n=213 (100%)
disease_specific_recurrence_status	N/A	n=213 (100%)
days_to_disease_specific_recurrence	N/A	n=213 (100%)
metastasis_occurrence_status	N/A	n=213 (100%)
days_to_metastatic_occurrence	N/A	n=213 (100%)
psa	N/A	n=213 (100%)
race	N/A	n=213 (100%)
smoking_status	N/A	n=213 (100%)
extraprostatic_extension	N/A	n=213 (100%)
perineural_invasion	N/A	n=213 (100%)
seminal_vesicle_invasion	N/A	n=213 (100%)
angiolymphatic_invasion	N/A	n=213 (100%)
androgen_ablation	N/A	n=213 (100%)
capsule	N/A	n=213 (100%)
$M_{stage}$	N/A	n=213 (100%)
$M_{substage}$	N/A	n=213 (100%)
other_patient	N/A	n=213 (100%)
sample_type	N/A	n=213 (100%)
genomic_alterations	N/A	n=213 (100%)
tumor_margins_positive	N/A	n=213 (100%)
tissue_source	N/A	n=213 (100%)
metastatic_site	Feature not found in MAE	-
microdissected	N/A	n=213 (100%)
frozen_ffpe	N/A	n=213 (100%)
other_feature	N/A	n=213 (100%)
batch	N/A	n=213 (100%)
other_sample	N/A	n=213 (100%)
tumor_purity_pathology	N/A	n=213 (100%)
tumor_purity_demix	N/A	n=213 (100%)
tumor_purity_absolute	N/A	n=213 (100%)
zone_of_origin zone_of_origin_estimated	N/A	n=213 (100%)
immune_infiltration	N/A N/A	n=213 (100%) n=213 (100%)
mutational_signatures	N/A N/A	n=213 (100%) n=213 (100%)
neoantigen_load	N/A	n=213 (100%) n=213 (100%)
AR_activity	N/A	n=213 (100%) n=213 (100%)
N_stage	N/A	n=213 (100%) $n=213 (100%)$
N_substage	N/A	n=213 (100%) n=213 (100%)
therapy_radiation_initial	N/A	n=213 (100%)
therapy_radiation_salvage	N/A	n=213 (100%)
therapy_surgery_initial	N/A	n=213 (100%)
therapy_hormonal_initial	N/A	n=213 (100%)
other_treatment	N/A	n=213 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

## 2.7 igc

	Instances	Missingness
overall_survival_status	N/A	n=83 (100%)
days_to_overall_survival	N/A	n=83 (100%)
$age\_at\_initial\_diagnosis$	NA: 83 (100%)	_
year_diagnosis	N/A	n=83 (100%)
${\it gleason\_grade}$	[6,6,7,7,8], NA n=3	n=3 (4%)
${\it gleason\_major}$	N/A	n=83 (100%)
gleason_minor	N/A	n=83 (100%)
$source\_of\_gleason$	N/A	n=83 (100%)
$\operatorname{grade\_group}$	N/A	n=83 (100%)
$T_{-}$ pathological	[2,2,2,3,4], NA n=26	n=26 (31%)
$T_substage\_pathological$	c: 33 (40%);NA: 29 (35%);a: 11 (13%);	n=29 (35%)
$T_{clinical}$	NA: 59 (71%);2: 20 (24%);3: 4 (5%)	n=59 (71%)
$T_substage\_clinical$	NA: 59 (71%);c: 15 (18%);a: 6 (7%);	n=59 (71%)
ERG_fusion_CNA	N/A	n=83 (100%)
ERG_fusion_IHC	N/A	n=83 (100%)
$ERG\_fusion\_GEX$	N/A	n=83 (100%)
disease_specific_recurrence_status	N/A	n=83 (100%)
$days\_to\_disease\_specific\_recurrence$	N/A	n=83 (100%)
metastasis_occurrence_status	N/A	n=83 (100%)
days_to_metastatic_occurrence	N/A	n=83 (100%)
psa	N/A	n=83 (100%)
race	Caucasian: 74 (89%); African-American: 7	-
	(8%); American Indian: 1 $(1%)$ ;	
$smoking\_status$	1: 42 (51%);0: 41 (49%)	-
$extraprostatic\_extension$	N/A	n=83 (100%)
perineural_invasion	N/A	n=83 (100%)
seminal_vesicle_invasion	N/A	n=83 (100%)
$angiolymphatic\_invasion$	N/A	n=83 (100%)
androgen_ablation	N/A	n=83 (100%)
capsule	N/A	n=83 (100%)
$M_{stage}$	N/A	n=83 (100%)
$M_{substage}$	N/A	n=83 (100%)
$other\_patient$	N/A	n=83 (100%)
$sample\_type$	N/A	n=83 (100%)
genomic_alterations	N/A	n=83 (100%)
$tumor\_margins\_positive$	N/A	n=83 (100%)
tissue_source	N/A	n=83 (100%)
$metastatic\_site$	N/A	n=83 (100%)
microdissected	N/A	n=83 (100%)
frozen_ffpe	N/A	n=83 (100%)
other_feature	N/A	n=83 (100%)
batch	N/A	n=83 (100%)
$other\_sample$	N/A	n=83 (100%)
$tumor\_purity\_pathology$	N/A	n=83 (100%)
$tumor\_purity\_demix$	N/A	n=83 (100%)
$tumor\_purity\_absolute$	N/A	n=83 (100%)
zone_of_origin	N/A	n=83 (100%)
zone_of_origin_estimated	N/A	n=83 (100%)

immune_infiltration	N/A	n=83 (100%)
mutational_signatures	N/A	n=83 (100%)
neoantigen_load	N/A	n=83 (100%)
AR_activity	N/A	n=83 (100%)
N_stage	N/A	n=83 (100%)
$N_{substage}$	N/A	n=83 (100%)
therapy_radiation_initial	N/A	n=83 (100%)
therapy_radiation_salvage	N/A	n=83 (100%)
therapy_surgery_initial	N/A	n=83 (100%)
therapy_hormonal_initial	N/A	n=83 (100%)
other_treatment	N/A	n=83 (100%)
psa_category	Elevated: 74 (89%); Normal: 6 (7%); NA: 3	n=3 (4%)
	(4%)	
genome_altered	Feature not found in MAE	-

## 2.8 kim

	Instances	Missingness
overall_survival_status	N/A	n=266 (100%)
days_to_overall_survival	N/A	n=266 (100%)
age_at_initial_diagnosis	[43.41, 57.59, 61.53, 66.91, 76]	-
year_diagnosis	N/A	n=266 (100%)
gleason_grade	NA: 266 (100%)	-
gleason_major	3: 264 (99%);NA: 2 (1%)	-
gleason_minor	[2,3,3,3,4], NA n=2	_
source_of_gleason	N/A	n=266 (100%)
grade_group	<=6: 198 (74%);3+4: 65 (24%);NA: 3 (1%)	n=3 (1%)
T_pathological	N/A	n=266 (100%)
$T_substage\_pathological$	N/A	n=266 (100%)
T_clinical	1: 225 (85%);2: 41 (15%)	-
T_substage_clinical	c: 266 (100%)	-
ERG_fusion_CNA	N/A	n=266 (100%)
ERG_fusion_IHC	N/A	n=266 (100%)
ERG_fusion_GEX	N/A	n=266 (100%)
disease_specific_recurrence_status	N/A	n=266 (100%)
days_to_disease_specific_recurrence	N/A	n=266 (100%)
metastasis_occurrence_status	N/A	n=266 (100%)
days_to_metastatic_occurrence	N/A	n=266 (100%)
psa	[0, 4.16, 5.4, 7.19, 20]	
race	N/A	n=266 (100%)
smoking_status	N/A	n=266 (100%)
extraprostatic_extension	N/A	n=266 (100%)
perineural_invasion	N/A	n=266 (100%)
seminal_vesicle_invasion	N/A	n=266 (100%)
angiolymphatic_invasion	N/A	n=266 (100%)
androgen_ablation	N/A	n=266 (100%)
capsule	N/A	n=266 (100%)
$M_{stage}$	N/A	n=266 (100%)
$M_{substage}$	N/A	n=266 (100%)

other_patient	N/A	n=266 (100%)
sample_type	N/A	n=266 (100%)
genomic_alterations	N/A	n=266 (100%)
tumor_margins_positive	N/A	n=266 (100%)
tissue_source	prostate cancer biopsy: 266 (100%)	- '
metastatic_site	Feature not found in MAE	_
microdissected	N/A	n=266 (100%)
frozen_ffpe	N/A	n=266 (100%)
other_feature	N/A	n=266 (100%)
batch	$\dot{N/A}$	n=266 (100%)
other_sample	N/A	n=266 (100%)
tumor_purity_pathology	N/A	n=266 (100%)
tumor_purity_demix	N/A	n=266 (100%)
tumor_purity_absolute	N/A	n=266 (100%)
zone_of_origin	N/A	n=266 (100%)
zone_of_origin_estimated	N/A	n=266 (100%)
immune_infiltration	N/A	n=266 (100%)
mutational_signatures	N/A	n=266 (100%)
neoantigen_load	N/A	n=266 (100%)
AR_activity	N/A	n=266 (100%)
N_stage	N/A	n=266 (100%)
N_substage	N/A	n=266 (100%)
therapy_radiation_initial	N/A	n=266 (100%)
therapy_radiation_salvage	N/A	n=266 (100%)
therapy_surgery_initial	N/A	n=266 (100%)
therapy_hormonal_initial	N/A	n=266 (100%)
other_treatment	N/A	n=266 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

#### 2.9 kunderfranco

	Instances	Missingness
overall_survival_status	N/A	n=67 (100%)
days_to_overall_survival	N/A	n=67 (100%)
age_at_initial_diagnosis	[50,62,67,70,74], NA n=14	n=14 (21%)
year_diagnosis	N/A	n=67 (100%)
gleason_grade	[5,7,7,7,9], NA n=14	n=14 (21%)
gleason_major	[2,3,3,4,5], NA n=14	n=14 (21%)
gleason_minor	[3,4,4,4,5], NA n=14	n=14 (21%)
source_of_gleason	prostatectomy: 53 (79%);biopsy: 14 (21%)	-
grade_group	3+4: 29 (43%);NA: $14 (21%);$ >=8: $11 (16%);$	-
	•••	
T_pathological	N/A	n=67 (100%)
$T_substage\_pathological$	N/A	n=67 (100%)
T_clinical	N/A	n=67 (100%)
$T_substage\_clinical$	N/A	n=67 (100%)
ERG_fusion_CNA	N/A	n=67 (100%)
ERG_fusion_IHC	N/A	n=67 (100%)

ERG_fusion_GEX	N/A	n=67 (100%)
disease_specific_recurrence_status	N/A N/A	n=67 (100%)
days_to_disease_specific_recurrence	N/A N/A	n=67 (100%)
metastasis_occurrence_status	N/A N/A	n=67 (100%)
	N/A N/A	n=67 (100%)
days_to_metastatic_occurrence	N/A N/A	n=67 (100%)
psa race	N/A N/A	n=67 (100%)
smoking_status	N/A N/A	n=67 (100%)
extraprostatic_extension	N/A N/A	n=67 (100%)
perineural_invasion	N/A N/A	n=67 (100%)
seminal_vesicle_invasion	N/A N/A	n=67 (100%)
angiolymphatic_invasion	N/A N/A	n=67 (100%)
androgen_ablation	N/A	n=67 (100%)
capsule	N/A	n=67 (100%)
M_stage	N/A	n=67 (100%)
M_substage	N/A	n=67 (100%)
other_patient	N/A	n=67 (100%)
sample_type	primary: 53 (79%);BPH: 14 (21%)	11-07 (10070)
genomic_alterations	N/A	n=67 (100%)
tumor_margins_positive	N/A	n=67 (100%)
tissue_source	prostatectomy: 53 (79%);biopsy: 14 (21%)	-
metastatic_site	N/A	n=67 (100%)
microdissected	0: 67 (100%)	-
frozen_ffpe	FFPE: 67 (100%)	_
other_feature	N/A	n=67 (100%)
batch	N/A	n=67 (100%)
other_sample	N/A	n=67 (100%)
tumor_purity_pathology	N/A	n=67 (100%)
tumor_purity_demix	N/A	n=67 (100%)
tumor_purity_absolute	N/A	n=67 (100%)
zone_of_origin	N/A	n=67 (100%)
zone_of_origin_estimated	N/A	n=67 (100%)
immune_infiltration	N/A	n=67 (100%)
mutational_signatures	N/A	n=67 (100%)
neoantigen_load	N/A	n=67 (100%)
AR_activity	N/A	n=67 (100%)
N_stage	N/A	n=67 (100%)
N_substage	N/A	n=67 (100%)
therapy_radiation_initial	N/A	n=67 (100%)
therapy_radiation_salvage	N/A	n=67 (100%)
therapy_surgery_initial	N/A	n=67 (100%)
therapy_hormonal_initial	N/A	n=67 (100%)
other_treatment	N/A	n=67 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

### 2.10 ren

Instances	Missingness

overall_survival_status	N/A	n=65 (100%)
days_to_overall_survival	N/A	n=65 (100%)
age_at_initial_diagnosis	[49,64.25,69,74,80], NA n=7	n=7 (11%)
year_diagnosis	N/A	n=65 (100%)
gleason_grade	NA: 65 (100%)	_
gleason_major	3: 29 (45%);4: 27 (42%);5: 9 (14%)	_
gleason_minor	4: 39 (60%);3: 18 (28%);5: 8 (12%)	_
source_of_gleason	N/A	n=65 (100%)
grade_group	3+4: 23 (35%);>=8: 14 (22%);4+3: 13 (20%);	n=10 (15%)
T_pathological	N/A	n=65 (100%)
T_substage_pathological	N/A	n=65 (100%)
T_clinical	[2,2,2,3,4], NA n=1	n=1(2%)
T_substage_clinical	c: 38 (58%);b: 11 (17%);a: 10 (15%);	n=6 (9%)
ERG_fusion_CNA	N/A	n=65 (100%)
ERG_fusion_IHC	N/A	n=65 (100%)
ERG_fusion_GEX	N/A	n=65 (100%)
disease_specific_recurrence_status	N/A	n=65 (100%)
days_to_disease_specific_recurrence	N/A	n=65 (100%)
metastasis_occurrence_status	N'/A	n=65 (100%)
days_to_metastatic_occurrence	N/A	n=65 (100%)
psa	[5.28,10.73,17.3,33.4,271], NA n=2	n=2(3%)
race	N/A	n=65 (100%)
smoking_status	N/A	n=65 (100%)
extraprostatic_extension	N/A	n=65 (100%)
perineural_invasion	N/A	n=65 (100%)
seminal_vesicle_invasion	N/A	n=65 (100%)
angiolymphatic_invasion	N/A	n=65 (100%)
androgen_ablation	N/A	n=65 (100%)
capsule	N/A	n=65 (100%)
M_stage	N/A	n=65 (100%)
M_substage	N/A	n=65 (100%)
other_patient	N/A	n=65 (100%)
sample_type	N/A	n=65 (100%)
genomic_alterations	N/A	n=65 (100%)
tumor_margins_positive	N/A	n=65 (100%)
tissue_source	N/A	n=65 (100%)
metastatic_site	Feature not found in MAE	
microdissected	N/A	n=65 (100%)
frozen_ffpe	N/A	n=65 (100%)
other_feature	N/A	n=65 (100%)
batch	N/A	n=65 (100%)
other_sample	N/A	n=65 (100%)
tumor_purity_pathology	N/A	n=65 (100%)
tumor_purity_demix	N/A N/A	n=65 (100%)
tumor_purity_absolute	N/A N/A	n=65 (100%)
zone_of_origin	N/A N/A	n=65 (100%)
zone_of_origin_estimated	N/A N/A	n=65 (100%)
immune_infiltration	N/A N/A	n=65 (100%)
	/	11-00 (10070)

mutational_signatures	N/A	n=65 (100%)
neoantigen_load	N/A	n=65 (100%)
AR_activity	N/A	n=65 (100%)
N_stage	N/A	n=65 (100%)
$N_{substage}$	N/A	n=65 (100%)
therapy_radiation_initial	N/A	n=65 (100%)
therapy_radiation_salvage	N/A	n=65 (100%)
therapy_surgery_initial	N/A	n=65 (100%)
therapy_hormonal_initial	N/A	n=65 (100%)
other_treatment	N/A	n=65 (100%)
psa_category	Feature not found in MAE	_
genome_altered	Feature not found in MAE	-

### 2.11 sun

	Instances	Missingness
overall_survival_status	N/A	n=79 (100%)
days_to_overall_survival	N/A	n=79 (100%)
age_at_initial_diagnosis	N/A	n=79 (100%)
year_diagnosis	N/A	n=79 (100%)
gleason_grade	N/A	n=79 (100%)
gleason_major	N/A	n=79 (100%)
gleason_minor	N/A	n=79 (100%)
source_of_gleason	N/A	n=79 (100%)
grade_group	N/A	n=79 (100%)
T_pathological	N/A	n=79 (100%)
$T_substage\_pathological$	N/A	n=79 (100%)
T_clinical	N/A	n=79 (100%)
T_substage_clinical	N/A	n=79 (100%)
ERG_fusion_CNA	N/A	n=79 (100%)
ERG_fusion_IHC	N/A	n=79 (100%)
ERG_fusion_GEX	N/A	n=79 (100%)
disease_specific_recurrence_status	0: 40 (51%);1: 39 (49%)	-
days_to_disease_specific_recurrence	N/A	n=79 (100%)
metastasis_occurrence_status	N/A	n=79 (100%)
days_to_metastatic_occurrence	N/A	n=79 (100%)
psa	N/A	n=79 (100%)
race	N/A	n=79 (100%)
smoking_status	N/A	n=79 (100%)
extraprostatic_extension	N/A	n=79 (100%)
perineural_invasion	N/A	n=79 (100%)
seminal_vesicle_invasion	N/A	n=79 (100%)
angiolymphatic_invasion	N/A	n=79 (100%)
androgen_ablation	N/A	n=79 (100%)
capsule	N/A	n=79 (100%)
M_stage	N/A	n=79 (100%)
M_substage	N/A	n=79 (100%)
other_patient	N/A	n=79 (100%)
$sample\_type$	primary: 79 (100%)	-

genomic_alterations	N/A	n=79 (100%)
tumor_margins_positive	N/A	n=79 (100%)
tissue_source	N/A	n=79 (100%)
metastatic_site	Feature not found in MAE	-
microdissected	N/A	n=79 (100%)
frozen_ffpe	N/A	n=79 (100%)
other_feature	N/A	n=79 (100%)
batch	N/A	n=79 (100%)
other_sample	N/A	n=79 (100%)
tumor_purity_pathology	N/A	n=79 (100%)
tumor_purity_demix	N/A	n=79 (100%)
tumor_purity_absolute	N/A	n=79 (100%)
zone_of_origin	N/A	n=79 (100%)
zone_of_origin_estimated	N/A	n=79 (100%)
immune_infiltration	N/A	n=79 (100%)
mutational_signatures	N/A	n=79 (100%)
neoantigen_load	N/A	n=79 (100%)
AR_activity	N/A	n=79 (100%)
N_stage	N/A	n=79 (100%)
N_substage	N/A	n=79 (100%)
therapy_radiation_initial	N/A	n=79 (100%)
therapy_radiation_salvage	N/A	n=79 (100%)
therapy_surgery_initial	N/A	n=79 (100%)
therapy_hormonal_initial	N/A	n=79 (100%)
$other\_treatment$	N/A	n=79 (100%)
psa_category	Feature not found in MAE	
genome_altered	Feature not found in MAE	-

## 2.12 taylor

	Instances	Missingness
overall_survival_status	N/A	n=218 (100%)
days_to_overall_survival	N/A	n=218 (100%)
age_at_initial_diagnosis	N/A	n=218 (100%)
year_diagnosis	N/A	n=218 (100%)
gleason_grade	[5,6,7,7,9], NA n=1	n=1 (0%)
gleason_major	[3,3,3,4,5], NA n=21	n=21 (10%)
gleason_minor	[3,3,4,4,5], NA n=21	n=21 (10%)
source_of_gleason	N/A	n=218 (100%)
grade_group	<=6: 104 (48%);>=8: 34 (16%);3+4: 34	n=31 (14%)
	(16%);	
T_pathological	[2,2,2,3,4], NA n=18	n=18 (8%)
$T_substage\_pathological$	b: 86 (39%);a: 55 (25%);c: 39 (18%);	n=38 (17%)
T_clinical	[1,1,2,2,4], NA n=9	n=9 (4%)
T_substage_clinical	c: $127 (58\%)$ ;a: $40 (18\%)$ ;b: $34 (16\%)$ ;	n=17 (8%)
ERG_fusion_CNA	0: 164 (75%);1: 54 (25%)	-
ERG_fusion_IHC	N/A	n=218 (100%)
ERG_fusion_GEX	0: 76 (35%);1: 74 (34%);NA: 68 (31%)	n=68 (31%)
disease_specific_recurrence_status	0: 137 (63%);1: 61 (28%);NA: 20 (9%)	n=20 (9%)

	F	
days_to_disease_specific_recurrence	[3,717.25,1386.5,1974.25,4909], NA n=20	n=20 (9%)
metastasis_occurrence_status	N/A	n=218 (100%)
days_to_metastatic_occurrence	N/A	n=218 (100%)
psa	N/A	n=218 (100%)
race	N/A	n=218 (100%)
smoking_status	N/A	n=218 (100%)
extraprostatic_extension	N/A	n=218 (100%)
perineural_invasion	N/A	n=218 (100%)
seminal_vesicle_invasion	N/A	n=218 (100%)
angiolymphatic_invasion	N/A	n=218 (100%)
androgen_ablation	N/A	n=218 (100%)
capsule	N/A	n=218 (100%)
M_stage	N/A	n=218 (100%)
M_substage	N/A	n=218 (100%)
other_patient	N/A	n=218 (100%)
sample_type	primary: 181 (83%);metastasis: 37 (17%)	-
genomic_alterations	N/A	n=218 (100%)
tumor_margins_positive	N/A	n=218 (100%)
tissue_source	N/A	n=218 (100%)
metastatic_site	N/A	n=218 (100%)
microdissected	N/A	n=218 (100%)
frozen_ffpe	N/A	n=218 (100%)
other_feature	N/A	n=218 (100%)
batch	N/A	n=218 (100%)
other_sample	N/A	n=218 (100%)
tumor_purity_pathology	N/A	n=218 (100%)
tumor_purity_demix	N/A	n=218 (100%)
tumor_purity_absolute	N/A	n=218 (100%)
zone_of_origin	N/A	n=218 (100%)
zone_of_origin_estimated	N/A	n=218 (100%)
$immune\_infiltration$	N/A	n=218 (100%)
mutational_signatures	N/A	n=218 (100%)
neoantigen_load	N/A	n=218 (100%)
AR_activity	N/A	n=218 (100%)
N_stage	N/A	n=218 (100%)
N_substage	N/A	n=218 (100%)
therapy_radiation_initial	N/A	n=218 (100%)
therapy_radiation_salvage	N/A	n=218 (100%)
therapy_surgery_initial	N/A	n=218 (100%)
therapy_hormonal_initial	N/A	n=218 (100%)
other_treatment	N/A	n=218 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

## 2.13 tcga

	Instances	Missingness
overall_survival_status	0: 484 (98%);1: 10 (2%)	-
days_to_overall_survival	[23.18, 524.9, 925.68, 1466.06, 5034.03]	_

age_at_initial_diagnosis	[41, 56, 61, 66, 78]	_
year_diagnosis	[2000,2009,2011,2012,2013], NA n=31	n=31 (6%)
gleason_grade	[6, 7, 7, 9, 10]	n=01 (0/0)
gleason_major	[2, 3, 4, 4, 5]	_
gleason_minor	4: 234 (47%);3: 150 (30%);5: 110 (22%)	_
source_of_gleason	biopsy: 494 (100%)	_
grade_group	>=8: 205 (41%);3+4: 145 (29%);4+3: 99	_
grado_group	$(20\%); \dots$	
$T_{-}$ pathological	[2,2,3,3,4], NA n=7	n=7 (1%)
T_substage_pathological	a: 171 (35%);c: 164 (33%);b: 142 (29%);	n=17 (3%)
T_clinical	[1,1,2,2,4], NA n=91	n=91 (18%)
T_substage_clinical	c: 224 (45%);NA: 106 (21%);a: 93 (19%);	n=106 (21%)
ERG_fusion_CNA	N/A	n=494 (100%)
ERG_fusion_IHC	N/A	n=494 (100%)
ERG_fusion_GEX	N/A	n=494 (100%)
disease_specific_recurrence_status	0: 397 (80%);1: 91 (18%);NA: 6 (1%)	n=6 (1%)
days_to_disease_specific_recurrence	[23.18,427.38,823.04,1375.86,5034.03], NA	n=6 (1%)
	n=6	
metastasis_occurrence_status	N/A	n=494 (100%)
days_to_metastatic_occurrence	N/A	n=494 (100%)
psa	[0,0.03,0.1,0.11,323], NA n=57	n=57 (12%)
race	NA: 338 (68%);caucasian: 147	-
	$(30\%)$ ; african_american: 7 $(1\%)$ ;	
smoking_status	N/A	n=494 (100%)
extraprostatic_extension	N/A	n=494 (100%)
perineural_invasion	N/A	n=494 (100%)
seminal_vesicle_invasion	N/A	n=494 (100%)
angiolymphatic_invasion	N/A	n=494 (100%)
androgen_ablation	N/A	n=494 (100%)
capsule	N/A	n=494 (100%)
M_stage	0: 452 (91%);NA: 39 (8%);1: 3 (1%)	n=39 (8%)
M_substage	: 491 (99%);a: 1 (0%);b: 1 (0%);	-
other_patient	N/A	n=494 (100%)
sample_type	Primary: 493 (100%); Metastasis: 1 (0%)	-
genomic_alterations	N/A	n=494 (100%)
tumor_margins_positive	N/A	n=494 (100%)
tissue_source	N/A	n=494 (100%)
metastatic_site	N/A	n=494 (100%)
microdissected	N/A	n=494 (100%)
frozen_ffpe	NA: 493 (100%);: 1 (0%)	-
other_feature	N/A	n=494 (100%)
batch	N/A	n=494 (100%)
other_sample	N/A	n=494 (100%)
tumor_purity_pathology	N/A	n=494 (100%)
tumor_purity_demix	N/A	n=494 (100%)
tumor_purity_absolute	N/A	n=494 (100%)
zone_of_origin	NA: 218 (44%); peripheral: 137 (28%); mixed:	-
	$127 (26\%); \dots$	
zone_of_origin_estimated	N/A	n=494 (100%)
$immune\_infiltration$	N/A	n=494 (100%)

mutational_signatures	N/A	n=494 (100%)
neoantigen_load	N/A	n=494 (100%)
AR_activity	N/A	n=494 (100%)
N_stage	0: 343 (69%);1: 79 (16%);NA: 72 (15%)	n=72 (15%)
N_substage	N/A	n=494 (100%)
therapy_radiation_initial	0: 246 (50%);NA: 208 (42%);1: 40 (8%)	n=208 (42%)
therapy_radiation_salvage	N/A	n=494 (100%)
therapy_surgery_initial	N/A	n=494 (100%)
therapy_hormonal_initial	N/A	n=494 (100%)
other_treatment	0: 244 (49%);NA: 207 (42%);1: 43 (9%)	n=207 (42%)
psa_category	N/A	n=494 (100%)
genome_altered	[0,0.02,0.06,0.12,0.58], NA n=6	n=6 (1%)

#### 2.14 true

	Instances	Missingness
overall_survival_status	N/A	n=29 (100%)
days_to_overall_survival	N/A	n=29 (100%)
age_at_initial_diagnosis	N/A	n=29 (100%)
year_diagnosis	N/A	n=29 (100%)
gleason_grade	[6, 7, 7, 7, 9]	-
gleason_major	3: 15 (52%);4: 12 (41%);5: 2 (7%)	-
gleason_minor	4: 14 (48%);3: 13 (45%);5: 2 (7%)	-
source_of_gleason	N/A	n=29 (100%)
grade_group	4: 11 (38%);3: 10 (34%);5: 6 (21%);	n=2 (7%)
T_pathological	N/A	n=29 (100%)
$T_substage\_pathological$	N/A	n=29 (100%)
T_clinical	N/A	n=29 (100%)
T_substage_clinical	N/A	n=29 (100%)
ERG_fusion_CNA	N/A	n=29 (100%)
ERG_fusion_IHC	N/A	n=29 (100%)
ERG_fusion_GEX	N/A	n=29 (100%)
disease_specific_recurrence_status	N/A	n=29 (100%)
days_to_disease_specific_recurrence	N/A	n=29 (100%)
metastasis_occurrence_status	N/A	n=29 (100%)
days_to_metastatic_occurrence	N/A	n=29 (100%)
psa	[1,5,6.35,8.62,15.9], NA n=1	n=1 (3%)
race	N/A	n=29 (100%)
smoking_status	N/A	n=29 (100%)
extraprostatic_extension	N/A	n=29 (100%)
perineural_invasion	N/A	n=29 (100%)
seminal_vesicle_invasion	N/A	n=29 (100%)
angiolymphatic_invasion	N/A	n=29 (100%)
androgen_ablation	N/A	n=29 (100%)
capsule	N/A	n=29 (100%)
M_stage	N/A	n=29 (100%)
$M_{substage}$	N/A	n=29 (100%)
other_patient	N/A	n=29 (100%)
sample_type	N/A	n=29 (100%)

1	NT / A	00 (10007)
genomic_alterations	N/A	n=29 (100%)
tumor_margins_positive	0: 18 (62%);1: 11 (38%)	-
tissue_source	N/A	n=29 (100%)
metastatic_site	N/A	n=29 (100%)
microdissected	1: 29 (100%)	-
frozen_ffpe	N/A	n=29 (100%)
other_feature	Age:60-69 Volume:8 LCM_Gleason_Pattern:5:	-
	2 (7%);Age:40-	
	49 Volume:2.2 LCM_Gleason_Pattern:5:	
	1 (3%);Age:40-	
	49 Volume:3.5 LCM_Gleason_Pattern:3: 1	
	(3%);	(, 04)
batch	N/A	n=29 (100%)
other_sample	N/A	n=29 (100%)
tumor_purity_pathology	N/A	n=29 (100%)
tumor_purity_demix	N/A	n=29 (100%)
tumor_purity_absolute	N/A	n=29 (100%)
zone_of_origin	N/A	n=29 (100%)
zone_of_origin_estimated	N/A	n=29 (100%)
immune_infiltration	N/A	n=29 (100%)
mutational_signatures	N/A	n=29 (100%)
neoantigen_load	N/A	n=29 (100%)
AR_activity	N/A	n=29 (100%)
N_stage	N/A	n=29 (100%)
N_substage	N/A	n=29 (100%)
therapy_radiation_initial	0: 29 (100%)	-
therapy_radiation_salvage	0: 29 (100%)	-
therapy_surgery_initial	N/A	n=29 (100%)
therapy_hormonal_initial	0: 29 (100%)	-
other_treatment	NA: 21 (72%);fish_oil: 2 (7%);selenium: 2	n=21 (72%)
	(7%);	
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-

### 2.15 wallace

	Instances	Missingness
overall_survival_status	N/A	n=83 (100%)
days_to_overall_survival	N/A	n=83 (100%)
age_at_initial_diagnosis	N/A	n=83 (100%)
year_diagnosis	N/A	n=83 (100%)
gleason_grade	[5, 6, 7, 7, 9]	-
gleason_major	N/A	n=83 (100%)
gleason_minor	N/A	n=83 (100%)
source_of_gleason	N/A	n=83 (100%)
grade_group	$\overline{N/A}$	n=83 (100%)
T_pathological	N/A	n=83 (100%)
$T_substage\_pathological$	N/A	n=83 (100%)
T_clinical	N/A	n=83 (100%)

```
N/A
                                                                                n=83 (100%)
       T_substage_clinical
       ERG_fusion_CNA
                                   N/A
                                                                                n=83 (100\%)
                                   N/A
                                                                                n=83 (100\%)
        ERG_fusion_IHC
       ERG_fusion_GEX
                                   N/A
                                                                                n=83 (100\%)
disease\_specific\_recurrence\_status
                                   N/A
                                                                                n=83 (100\%)
                                  N/A
                                                                                n=83 (100\%)
days_to_disease_specific_recurrence
                                   N/A
                                                                                n=83 (100\%)
  metastasis_occurrence_status
 days_to_metastatic_occurrence
                                   N/A
                                                                                n=83 (100\%)
                                                                                n=83 (100%)
              psa
                                   N/A
                                   caucasian: 45 (54%);african_american:
              race
                                   (46\%)
        smoking_status
                                   1: 37 (45%);NA: 25 (30%);0: 21 (25%)
                                                                                 n=25 (30\%)
                                   0: 54 (65%);1: 27 (33%);NA: 2 (2%)
    extraprostatic_extension
                                                                                  n=2 (2\%)
       perineural_invasion
                                   1: 69 (83%);0: 12 (14%);NA: 2 (2%)
                                                                                  n=2 (2\%)
    seminal_vesicle_invasion
                                  0: 69 (83%);1: 12 (14%);NA: 2 (2%)
                                                                                  n=2 (2\%)
                                  0: 76 (92%);1: 5 (6%);NA: 2 (2%)
                                                                                  n=2 (2\%)
    angiolymphatic_invasion
       androgen_ablation
                                  N/A
                                                                                n=83 (100\%)
                                   N/A
                                                                                n=83 (100\%)
            capsule
                                   N/A
                                                                                n=83 (100\%)
            M_stage
          M_substage
                                   N/A
                                                                                n=83 (100\%)
         other_patient
                                  N/A
                                                                                n=83 (100%)
                                   primary: 69 (83%);adjacentnormal: 14 (17%)
          sample\_type
                                                                                n=83 (100\%)
      genomic_alterations
                                   0: 51 (61%);1: 29 (35%);NA: 3 (4%)
     tumor_margins_positive
                                                                                  n=3 (4\%)
         tissue_source
                                  N/A
                                                                                n=83 (100%)
         metastatic_site
                                   N/A
                                                                                n=83 (100%)
                                   0: 83 (100%)
         microdissected
                                   frozen: 83 (100%)
           frozen_ffpe
         other_feature
                                                                                n=83 (100\%)
                                   N/A
                                                                                n=83 (100%)
                                   N/A
             batch
         other_sample
                                   N/A
                                                                                n=83 (100\%)
                                   N/A
    tumor_purity_pathology
                                                                                n=83 (100\%)
                                                                                n=83 (100%)
      tumor_purity_demix
                                   N/A
                                   N/A
                                                                                n=83 (100\%)
     tumor_purity_absolute
         zone_of_origin
                                   N/A
                                                                                n=83 (100\%)
    zone_of_origin_estimated
                                   N/A
                                                                                n=83 (100%)
      immune\_infiltration
                                   N/A
                                                                                n=83 (100%)
                                   N/A
                                                                                n=83 (100\%)
     mutational_signatures
        neoantigen_load
                                   N/A
                                                                                n=83 (100\%)
          AR_activity
                                  N/A
                                                                                n=83 (100\%)
                                                                                n=83 (100\%)
            N_stage
                                   N/A
          N_substage
                                   N/A
                                                                                n=83 (100\%)
    therapy_radiation_initial
                                   0: 83 (100%)
    therapy_radiation_salvage
                                  0: 83 (100%)
     therapy_surgery_initial
                                  0: 83 (100%)
    therapy_hormonal_initial
                                   0: 83 (100%)
        other\_treatment
                                   N/A
                                                                                n=83 (100\%)
          psa_category
                                   Feature not found in MAE
        genome_altered
                                   Feature not found in MAE
```

## 2.16 wang

	Instances	Missingness
overall_survival_status	N/A	n=148 (100%)
days_to_overall_survival	N/A	n=148 (100%)
age_at_initial_diagnosis	N/A	n=148 (100%)
year_diagnosis	N/A	n=148 (100%)
gleason_grade	N/A	n=148 (100%)
gleason_major	N/A	n=148 (100%)
gleason_minor	N/A	n=148 (100%)
source_of_gleason	N/A	n=148 (100%)
grade_group	N/A	n=148 (100%)
T_pathological	N/A	n=148 (100%)
T_substage_pathological	N/A	n=148 (100%)
T_clinical	N/A	n=148 (100%)
T_substage_clinical	N/A	n=148 (100%)
ERG_fusion_CNA	N/A	n=148 (100%)
ERG_fusion_IHC	N/A	n=148 (100%)
ERG_fusion_GEX	N/A	n=148 (100%)
disease_specific_recurrence_status	N/A	n=148 (100%)
days_to_disease_specific_recurrence	N/A	n=148 (100%)
metastasis_occurrence_status	N/A	n=148 (100%)
days_to_metastatic_occurrence	N/A	n=148 (100%)
psa	N/A	n=148 (100%)
race	N/A	n=148 (100%)
smoking_status	N/A	n=148 (100%)
extraprostatic_extension	N/A	n=148 (100%)
perineural_invasion	N/A	n=148 (100%)
seminal_vesicle_invasion	N/A	n=148 (100%)
angiolymphatic_invasion	N/A	n=148 (100%)
androgen_ablation	N/A	n=148 (100%)
capsule	N/A	n=148 (100%)
M_stage	N/A	n=148 (100%)
$M_{\text{substage}}$	N/A	n=148 (100%)
other_patient	N/A	n=148 (100%)
sample_type	N/A	n=148 (100%)
genomic_alterations	N/A	n=148 (100%)
tumor_margins_positive	N/A	n=148 (100%)
tissue_source	N/A	n=148 (100%)
metastatic_site	N/A	n=148 (100%)
microdissected	N/A	n=148 (100%)
frozen_ffpe	N/A	n=148 (100%)
other_feature	N/A	n=148 (100%)
batch	N/A	n=148 (100%)
other_sample	N/A	n=148 (100%)
tumor_purity_pathology	N/A	n=148 (100%)
tumor_purity_demix	N/A	n=148 (100%)
tumor_purity_absolute	N/A	n=148 (100%)
zone_of_origin	N/A	n=148 (100%)

zone_of_origin_estimated	N/A	n=148 (100%)
immune_infiltration	N/A	n=148 (100%)
mutational_signatures	N/A	n=148 (100%)
neoantigen_load	N/A	n=148 (100%)
AR_activity	N/A	n=148 (100%)
N_stage	N/A	n=148 (100%)
N_substage	N/A	n=148 (100%)
therapy_radiation_initial	N/A	n=148 (100%)
therapy_radiation_salvage	N/A	n=148 (100%)
therapy_surgery_initial	N/A	n=148 (100%)
therapy_hormonal_initial	N/A	n=148 (100%)
other_treatment	N/A	n=148 (100%)
psa_category	N/A	n=148 (100%)
genome_altered	Feature not found in MAE	-

### 2.17 weiner

	Instances	Missingness
overall_survival_status	N/A	n=838 (100%)
days_to_overall_survival	N/A	n=838 (100%)
age_at_initial_diagnosis	[39, 57, 61, 65, 76]	-
year_diagnosis	N/A	n=838 (100%)
gleason_grade	N/A	n=838 (100%)
gleason_major	N/A	n=838 (100%)
gleason_minor	N/A	n=838 (100%)
source_of_gleason	N/A	n=838 (100%)
$\operatorname{grade\_group}$	3+4: 419 (50%); $4+3$ : 183 (22%);>=8: 171	-
	(20%);	
$T_{-}$ pathological	N/A	n=838 (100%)
T_substage_pathological	N/A	n=838 (100%)
T_clinical	N/A	n=838 (100%)
T_substage_clinical	N/A	n=838 (100%)
ERG_fusion_CNA	N/A	n=838 (100%)
ERG_fusion_IHC	N/A	n=838 (100%)
ERG_fusion_GEX	N/A	n=838 (100%)
disease_specific_recurrence_status	N/A	n=838 (100%)
days_to_disease_specific_recurrence	N/A	n=838 (100%)
metastasis_occurrence_status	N/A	n=838 (100%)
days_to_metastatic_occurrence	N/A	n=838 (100%)
psa	[0,5.2,7.4,11.42,83.44], NA n=18	n=18 (2%)
race	NA: 538 (64%);african_american: 150	n=538 (64%)
	(18%); caucasian: 150 $(18%)$	
smoking_status	N/A	n=838 (100%)
extraprostatic_extension	N/A	n=838 (100%)
perineural_invasion	N/A	n=838 (100%)
seminal_vesicle_invasion	N/A	n=838 (100%)
angiolymphatic_invasion	N/A	n=838 (100%)
androgen_ablation	N/A	n=838 (100%)
capsule	N/A	n=838 (100%)

M_stage	N/A	n=838 (100%)
M_substage	N/A	n=838 (100%)
other_patient	N/A	n=838 (100%)
sample_type	primary: 838 (100%)	- '
genomic_alterations	N/A	n=838 (100%)
tumor_margins_positive	N/A	n=838 (100%)
tissue_source	prostatectomy: 838 (100%)	′
metastatic_site	N/A	n=838 (100%)
microdissected	0: 838 (100%)	- '
frozen_ffpe	FFPE: 838 (100%)	-
other_feature	N/A	n=838 (100%)
batch	Durham Veterans Affairs Hospital: 538	- '
	(64%); Johns Hopkins Medical Institute: 300	
	(36%)	
other_sample	N/A	n=838 (100%)
tumor_purity_pathology	N/A	n=838 (100%)
tumor_purity_demix	N/A	n=838 (100%)
tumor_purity_absolute	N/A	n=838 (100%)
zone_of_origin	N/A	n=838 (100%)
zone_of_origin_estimated	N/A	n=838 (100%)
immune_infiltration	N/A	n=838 (100%)
mutational_signatures	N/A	n=838 (100%)
neoantigen_load	N/A	n=838 (100%)
AR_activity	N/A	n=838 (100%)
N_stage	N/A	n=838 (100%)
N_substage	N/A	n=838 (100%)
therapy_radiation_initial	0: 838 (100%)	-
therapy_radiation_salvage	0: 838 (100%)	-
therapy_surgery_initial	0: 838 (100%)	-
therapy_hormonal_initial	0: 838 (100%)	-
other_treatment	N/A	n=838 (100%)
psa_category	Feature not found in MAE	-
genome_altered	Feature not found in MAE	-