

**Supplemental Information Table 1: ccRCC Patient Characteristics**

Patients 170-248 were used for TIF analysis, 295-345 were used for pS6 analysis; N/R= not reported

Number in dataset	Patient ID	Histo	Grade	Age	Sex	Race/Ethnicity	Size (cm)	Mechanism of Attainment
1	170	ccRCC	G3	66	F	White	N/R	Primary Nephrectomy at VUMC
2	192	ccRCC	G3	65	M	Black	5.4	Primary Nephrectomy at VUMC
6	213	ccRCC	G4	59	M	White	10	Primary Nephrectomy at VUMC
9	218	ccRCC	G3	56	M	Black	6	Primary Nephrectomy at VUMC
10	219	ccRCC	G1	33	F	White	5.6	Primary Nephrectomy at VUMC
11	220	ccRCC	G3	44	M	White	9	Primary Nephrectomy at VUMC
12	225	ccRCC	G3	79	F	White	7	Primary Nephrectomy at VUMC
14	227	ccRCC	G3	62	M	White	13	Primary Nephrectomy at VUMC
15	228	ccRCC	G3	67	M	Hispanic	8.5	Primary Nephrectomy at VUMC
16	229	ccRCC	G2	74	F	White	5	Primary Nephrectomy at VUMC
17	231	ccRCC	G2	62	M	White	3.5	Primary Nephrectomy at VUMC
18	234	ccRCC	G4	79	F	White	3.5	Primary Nephrectomy at VUMC
19	235	ccRCC	G2	45	M	White	12	Primary Nephrectomy at VUMC
20	247	ccRCC	G3	38	F	White	6	Primary Nephrectomy at VUMC
21	248	ccRCC	G2	66	F	White	7.6	Primary Nephrectomy at VUMC
1	295	ccRCC	G1	65	F	White	4	Primary Nephrectomy at VUMC
2	323	ccRCC	G4	84	M	White	8	Primary Nephrectomy at VUMC
3	333	ccRCC	G3	43	M	White	9.7	Primary Nephrectomy at VUMC
4	345	ccRCC	G2	45	M	White	14	Primary Nephrectomy at VUMC