**Collection protocol:**

*Urine Collection –* Patients at Emory University Hospital with a solid renal mass concerning for RCC and

subsequently confirmed to be RCC following surgery were identified prospectively.

Healthy controls were identified during an annual physical exam. All patients provided

informed consent (Emory University approvals IRB00058903, IRB00054812,

IRB00085068, and IRB00055316). Urine was collected at either a clinic appointment or

at time of surgery in a urine collection cup and placed on ice. Urine was mixed by

turning the cup upside down 5 times and 15 mL were transferred to a sterile tube

followed by centrifugation at 1800 g for 20 min at 4oC. 10 mL of the supernatant were

transferred to a clean, sterile tube and one tablet of Complete Protease Inhibitor

Cocktail (Sigma, St. Louis) was added to the tube. The tube was placed on ice for 10

min with periodic vortexing to dissolve the tablet. This urine was then transferred into 5

X 1.5 mL aliquots and stored at -80oC.