

Q5

Type of Project Grant

RESEARCH: To investigate a question and/or to develop a technology in pathology/lab medicine services that improves healthcare quality, cost, or access.

Q6

Estimate of Total Budget (no details at this time, just total value up to \$5,000 for one year)

5000

Q7

Short title: (<4 words)

Outcomes: eGFR and Race

Q8

Full Title:

Removing Race from the Calculation of eGFR: Outcomes

Q9

Short Summary: (<250 words)

The use of race as a parameter in clinical algorithms is being reexamined. There is a growing concern that the use of race in calculating estimated glomerular filtration rate (eGFR) may contribute to health disparities in the diagnosis and management of chronic kidney disease (CKD). The two most commonly used equations to calculate eGFR both calculate a higher eGFR in African American patients than in non-African American patients with the same serum creatinine. This may contribute to delayed nephrology referral, delayed eligibility for renal transplant, and delayed diagnosis of CKD.

In May of 2020, UC Davis Health joined a small group of hospital systems that have changed the way they report eGFR. All adults now have their eGFR calculated by the CKD-EPI equation without a parameter for race, which we showed in a preliminary investigation is more sensitive for the diagnosis of CKD. This proposal is for a study to explore the outcomes of this change. The hypothesis is that this change will increase the number of patients diagnosed with CKD and shorten the time to diagnosis. The specificity of reporting a single eGFR value will be examined to evaluate whether the patients with borderline eGFRs being reclassified as having CKD by eliminating the race parameter from the calculation represent true positives or false positives. We will use machine learning to classify individuals' CKD status using adjunct biomarkers and risk factors for CKD and hypothesize that eGFR without a race parameter will show a better correlation.
