

## SUPPLEMENTARY DATA

**Supplementary Table 1. Category-free Net Reclassification Improvement Models for CAC Progression and Incident DKD Prediction in Models**

| <b>Model 1 (Age, Sex, HbA1c, SBP and LDL-C) vs. model 1 + SUMOD</b> |                   |
|---|-------------------|
| <b>CAC progression</b>  |                   |
| Category free NRI   | 0.28 (0.03, 0.53) |
| Percentage of events correctly reclassified                         | 27% (p=0.003)     |
| Percentage of non-events correctly reclassified                     | 1% (p=0.93)       |
| <b>Incident CKD</b>   |                   |
| Category free NRI   | 0.52 (0.16, 0.90) |
| Percentage of events correctly reclassified                         | 29% (p=0.13)      |
| Percentage of non-events correctly reclassified                     | 24% (p<0.0001)    |
| <b>Incident Elevated Albumin Excretion</b>                          |                   |
| Category free NRI   | 0.72 (0.26, 1.19) |
| Percentage of events correctly reclassified                         | 47% (p=0.07)      |
| Percentage of non-events correctly reclassified                     | 26% (p<0.0001)    |
| <b>Rapid GFR decline</b>  |                   |
| Category free NRI   | 0.49 (0.14, 0.83) |
| Percentage of events correctly reclassified                         | 45% (p=0.02)      |
| Percentage of non-events correctly reclassified                     | 4% (p=0.50)       |

Data are presented as category-free net reclassification index with 95% confidence interval and percentage of event and nonevent of interest that correctly reclassified.

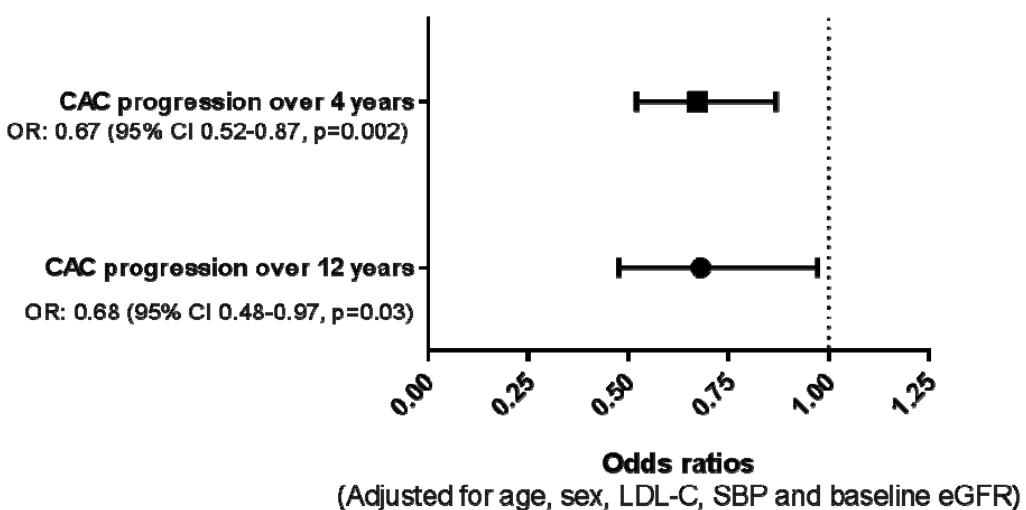
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**Supplementary Table 2. CAC, ACR and eGFR Across Tertiles of SUMOD**

|  | Low SUMOD<br>Tertile<br>(<103.33ng/ml) | Mid SUMOD<br>Tertile (103.33-<br>168.84ng/ml) | High SUMOD<br>Tertile<br>(≥168.84ng/ml) | P-value |
|--|--|---|---|---------|
| eGFR at baseline<br>(ml/min/1.73m <sup>2</sup> ) | 92±1 <sup>†</sup>                      | 102±1   | 105±1                                   | <0.0001 |
| eGFR at 12-years<br>(ml/min/1.73m <sup>2</sup> ) | 78±2 <sup>†</sup>                      | 84±2 <sup>‡</sup>                             | 90±2                                    | <0.0001 |
| ACR at baseline*<br>(mg/g)                       | 16.36 (13.18-<br>20.31) <sup>†</sup>   | 9.28 (7.49-11.50)                             | 7.77 (6.32-9.56)                        | <0.0001 |
| ACR at 12 years*<br>(mg/g)                       | 14.24 (11.02-<br>18.41) <sup>†</sup>   | 5.13 (4.02-6.55)                              | 5.17 (4.11-6.50)                        | <0.0001 |
| CAC at baseline<br>(AU)                          | 140.03±26.54 <sup>‡</sup>              | 115.52±26.13                                  | 66±25.57                                | 0.04    |
| CAC at 12 years<br>follow-up (AU)                | 609.99±95.22 <sup>†</sup>              | 341.93±95.25                                  | 161.07±86.00                            | 0.005   |

Data are presented as age, sex, SBP and LDL-C adjusted means (least square means) and standard errors of the means. \* Geometric least square means and 95% CI. <sup>†</sup> P<0.05 compared to mid and high tertiles. <sup>‡</sup> P<0.05 compared to high tertile.

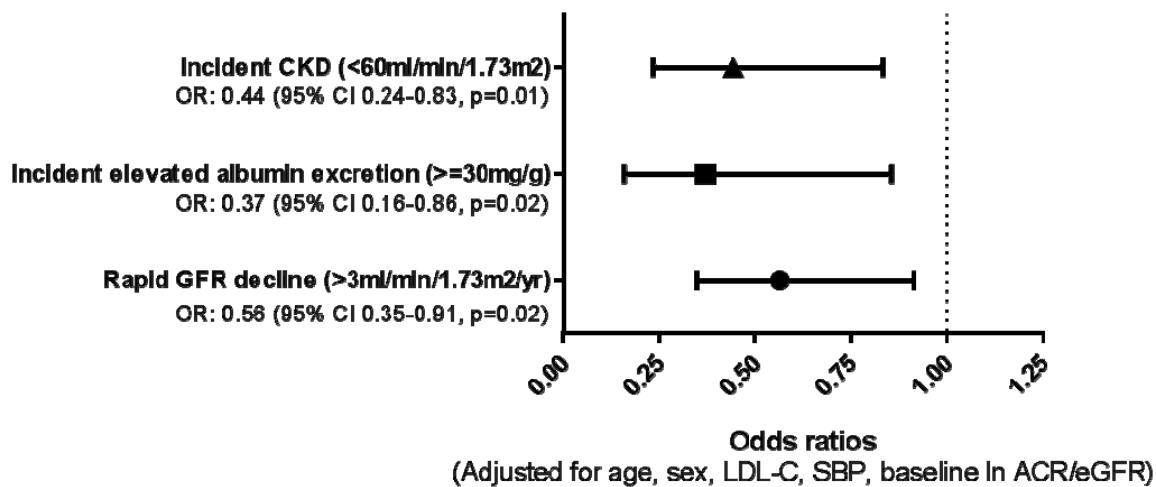
**Supplementary Figure 1. SUMOD Predicts CAC Progression Over 4 and 12 Years**



The Forest plot represents the odds ratios with 95% confidence intervals for the association between coronary artery calcification (CAC) progression and an increase in 1 SD (68.40 ng/ml) of serum uromodulin at baseline, adjusted for age, sex, SBP, LDL-C and baseline eGFR.

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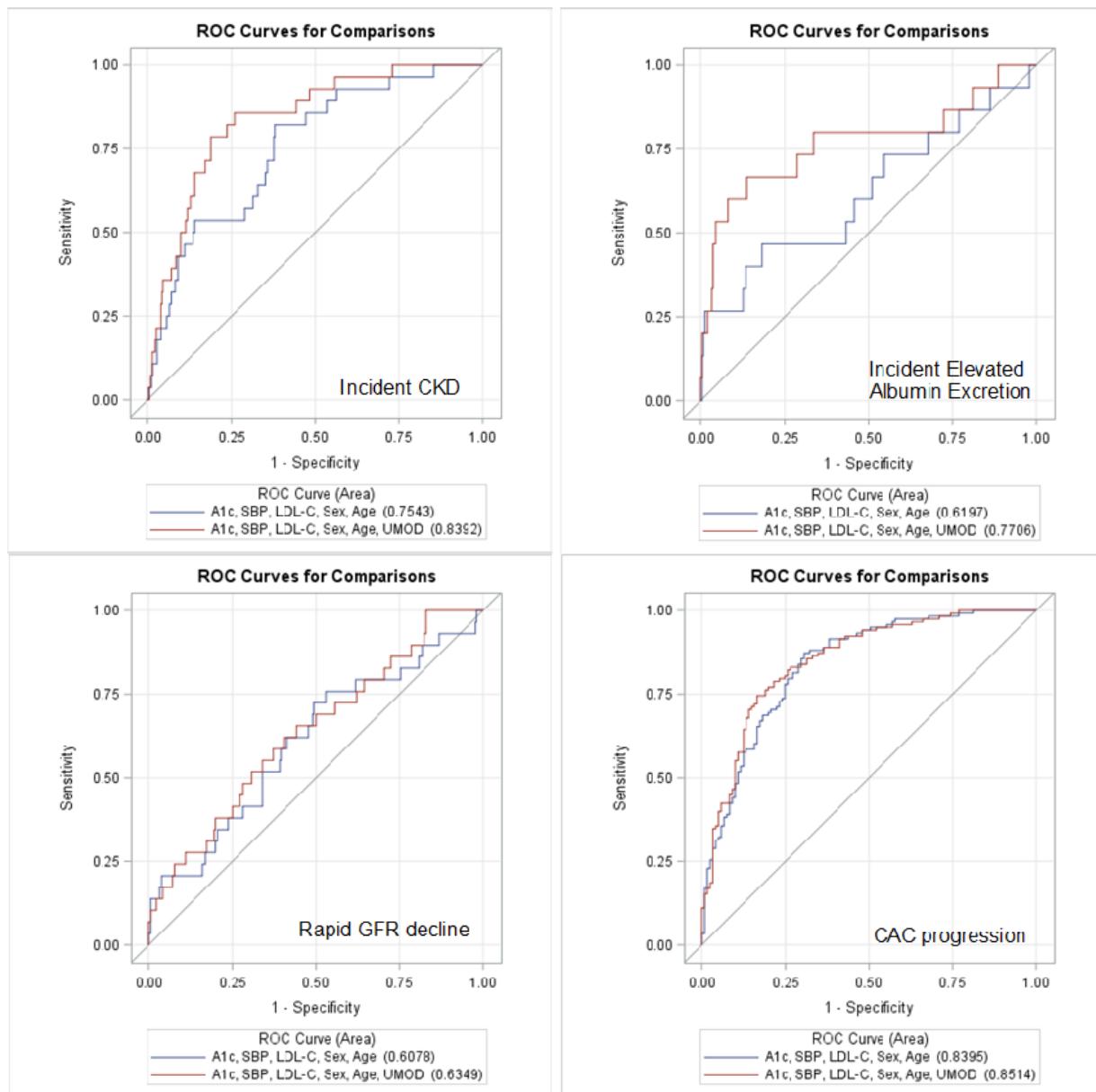
**Supplementary Figure 2. SUMOD Predicts Incident DKD Over 12 Years**



The Forest plot represents the odds ratios with 95% CI for the association between the parameters of incident diabetic kidney disease (DKD) over a 12-year follow-up and an increase in 1 SD (68.40 ng/ml) of serum uromodulin at baseline, adjusted for age, sex, SBP, LDL-C and baseline eGFR.

## SUPPLEMENTARY DATA

**Supplementary Figure 3. ROC for Incident CKD, Incident Elevated Albumin Excretion, Rapid GFR Decline and CAC Progression in Models with and without SUMOD**



The blue and red lines show the estimated ROC curves for the predicting models without and with serum uromodulin in the present study data set.