

**Supplementary Table 1.** Multicollinearity diagnostics for independent variables.

| Variable         | Tolerance | VIF      |
|------------------|-----------|----------|
| TG               | 0.723     | 1.383    |
| TC               | 0.048     | 20.862 * |
| LDL-C            | 0.048     | 20.905 * |
| Smoking status   | 0.966     | 1.035    |
| Diabetes         | 0.916     | 1.092    |
| SLEDAI           | 0.892     | 1.121    |
| Disease duration | 0.888     | 1.126    |

VIF, Variance Inflation Factor. A VIF value > 10 indicates severe multicollinearity. TC and LDL-C were excluded from the multivariable logistic regression models due to severe multicollinearity.

**Supplementary Table 2.** Variables included in the multivariate logistic regression models.

| Model   | Variables Included                                     | Rationale                                                                                                                                                                   |
|---------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model 1 | TG, smoking status, diabetes                           | To evaluate the association between TG and CVD adjusted for traditional cardiovascular risk factors. TC and LDL-C were excluded due to severe multicollinearity (VIF > 10). |
| Model 2 | TG, smoking status, diabetes, SLEDAI, disease duration | To further assess the independent predictive value of TG after adjusting for SLE disease-specific characteristics (disease activity and disease duration).                  |

TG: triglyceride; TC: total cholesterol; LDL-C: low-density lipoprotein cholesterol.\*VIF: Variance Inflation Factor. A VIF value > 10 indicates severe multicollinearity.\*

**Supplementary Table 3.** Pairwise comparisons of AUCs using DeLong's test

| Comparison   | AUC <sub>1</sub> | AUC <sub>2</sub> | $\Delta$ AUC | 95% CI of $\Delta$ AUC | Z      | P value |
|--------------|------------------|------------------|--------------|------------------------|--------|---------|
| TG vs. TC    | 0.762            | 0.652            | 0.110        | -0.016,0.237           | 1.707  | 0.088   |
| TG vs. LDL-C | 0.762            | 0.669            | 0.093        | -0.034,0.220           | 1.439  | 0.150   |
| TC vs. LDL-C | 0.652            | 0.669            | -0.017       | -0.053,0.019           | -0.930 | 0.352   |

\*Pairwise comparisons were performed using DeLong's test for correlated ROC curves. CVD was used as the state variable (positive = 1).\*