

### Supplementary Table 7 - Prospective associations of endogenous progestogens and estrogens with markers of glycemic traits in men of KORA F4/FF4.

		17-OHP	Progesterone	Progesterone <sup>a</sup>	E2	E2 <sup>b</sup>	fE2
		$\beta$ (95% CI)	$\beta$ (95% CI)	$\beta$ (95% CI)	$\beta$ (95% CI)	$\beta$ (95% CI)	$\beta$ (95% CI)
Fasting Glucose	Model 1	-0.017 (-0.055 – 0.022) P = 0.393	0.021 (-0.015 – 0.056) P = 0.260	-	-0.026 (-0.063 – 0.011) P = 0.174	-	0.016 (-0.025 – 0.057) P = 0.440
	Model 2	-0.019 (-0.057 – 0.020) P = 0.342	0.019 (-0.017 – 0.055) P = 0.302	0.018 (-0.018 – 0.054) P = 0.320	-0.021 (-0.059 – 0.017) P = 0.274	-0.010 (-0.050 – 0.030) P = 0.621	0.014 (-0.028 – 0.056) P = 0.511
2h-glucose	Model 1	0.009 (-0.052 – 0.070) P = 0.765	-0.021 (-0.072 – 0.031) P = 0.428	-	-0.011 (-0.070 – 0.047) P = 0.701	-	0.032 (-0.033 – 0.097) P = 0.339
	Model 2	0.013 (-0.048 – 0.074) P = 0.682	-0.021 (-0.073 – 0.031) P = 0.423	-0.021 (-0.073 – 0.031) P = 0.426	-0.005 (-0.064 – 0.055) P = 0.878	0.006 (-0.057 – 0.070) P = 0.841	0.024 (-0.042 – 0.090) P = 0.470
HbA <sub>1c</sub>	Model 1	0.013 (-0.026 – 0.052) P = 0.516	0.007 (-0.029 – 0.043) P = 0.715	-	-0.012 (-0.050 – 0.026) P = 0.542	-	-0.030 (-0.072 – 0.011) P = 0.155
	Model 2	0.007 (-0.032 – 0.045) P = 0.738	0.007 (-0.029 – 0.043) P = 0.703	0.005 (-0.030 – 0.041) P = 0.775	-0.000 (-0.038 – 0.038) P = 0.993	-0.017 (-0.057 – 0.022) P = 0.394	-0.028 (-0.069 – 0.014) P = 0.190
Fasting Insulin	Model 1	-0.007 (-0.057 – 0.043) P = 0.785	<b>0.052</b> <b>(0.005 – 0.098)</b> <b>P = 0.030</b>	-	-0.005 (-0.053 – 0.044) P = 0.853	-	0.027 (-0.027 – 0.080) P = 0.327
	Model 2	-0.013 (-0.062 – 0.037) P = 0.617	0.044 (-0.002 – 0.091) P = 0.062	0.043 (-0.003 – 0.090) P = 0.067	0.005 (-0.044 – 0.054) P = 0.835	0.012 (-0.039 – 0.063) P = 0.652	0.020 (-0.033 – 0.074) P = 0.455
QUICKI	Model 1	0.009 (-0.042 – 0.059) P = 0.741	<b>-0.048</b> <b>(-0.095 – -0.000)</b> <b>P = 0.049</b>	-	0.006 (-0.044 – 0.055) P = 0.827	-	-0.032 (-0.086 – 0.023) P = 0.256
	Model 2	0.014 (-0.036 – 0.065) P = 0.578	-0.040 (-0.088 – 0.007) P = 0.095	-0.039 (-0.087 – 0.008) P = 0.104	-0.006 (-0.056 – 0.044) P = 0.820	-0.014 (-0.067 – 0.038) P = 0.595	-0.026 (-0.081 – 0.029) P = 0.354

All results are from multivariate linear regression models. Adjusted for baseline values of respective glycemic traits, age, waist circumference, height, triglycerides, total cholesterol/HDL ratio), hypertension, statin use (model 1), smoking, alcohol consumption, physical activity, CRP, eGFR, TSH, and parental diabetes history (model 2). Effect estimates with 95% CIs were calculated for a one sex-specific SD increase on the log scale of progestogen and estrogen levels, respectively. Significant results are printed in bold. Abbreviations: 17-OHP: 17 $\alpha$ -hydroxyprogesterone, CRP: C-reactive protein, eGFR: Estimated glomerular filtration rate, SHBG: Sex hormone-binding globulin, TSH: Thyroid-stimulating hormone.

<sup>a</sup> Models were additionally adjusted for albumin.

<sup>b</sup> Models were additionally adjusted for SHBG.