Supplementary Table 3. An ANCOVA model testing whether there is an interaction effect of age in gene expression

Variables	Age interaction		
Gene expression	**Case/control F value**	**Age F value**	**Case/control*age interaction F value**
CCL2	35.417*	0.587	1.886
IL1β	17.603*	0.205	1.211
IL6	17.277*	0.000	0.629
IL10	10.147*	0.229	0.534
IFNα1	1.857	0.107	0.226
IFNγ	2.548	0.002	0.020
NFκB1	45.248*	0.171	0.214
TNFα	3.125	0.096	0.396
CYP24A1	35.608*	0.028	0.002
CYP27B1	24.098*	0.103	0.075
VDR	31.947*	0.467	0.355
RXRα	0.600	6.764*	2.085

A multivariate regression model using ANCOVA analysis, taking gene expression as response variable, CRC as predictor variable and age as covariate. There was also taking int account the interaction between predictor variable and covariates. F value is a value on the F distribution, which means variation between means and variation within the samples. Significant interaction is noted as an asterisk ($p < 0.05$).

Abbreviation: ANCOVA, analysis of covariance, CRC, colorectal cancer, HOMA-IR, homeostatic model assessment of insulin resistance, CCL2, C-C motif chemokine ligand 2, CYP24A1, cytochrome P450 family 24 subfamily A member 1, CYP27B1, cytochrome P450 family 27 subfamily B member 1, IL1β,

interleukin 1 beta, IL6, interleukin 6, IL10, interleukin 10, IFNα1, interferon alpha 1, IFNγ, interferon gamma, NFκB1, nuclear factor kappa B 1, TNFα, tumor necrosis factor alpha, RXRα, retinoid X receptor alpha, VDR, vitamin D receptor