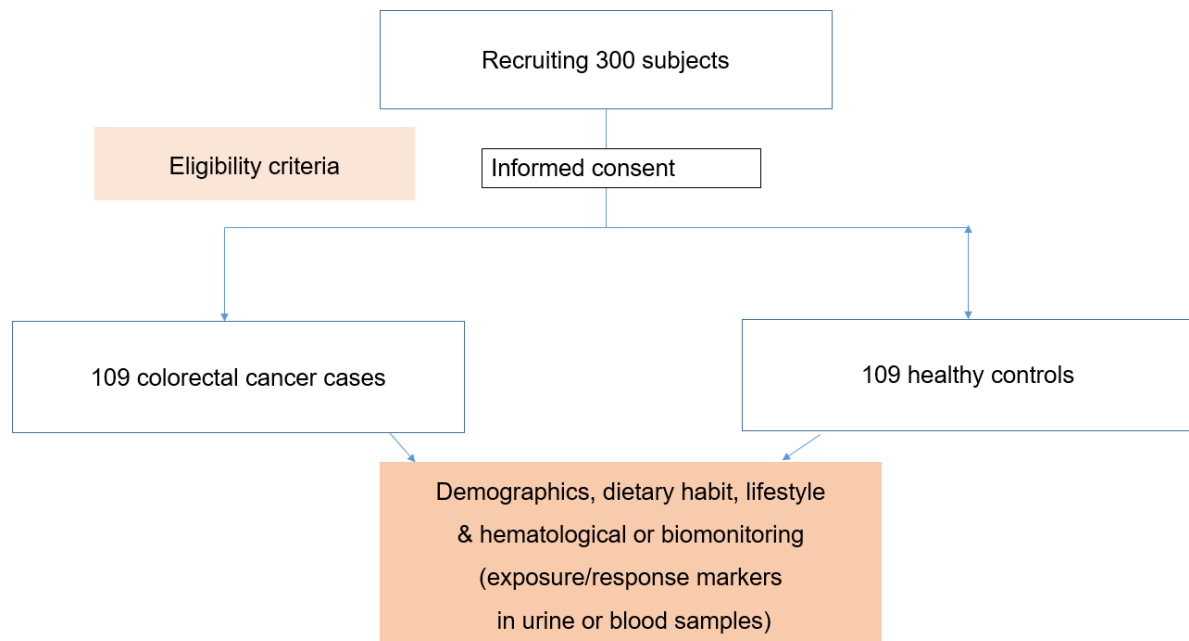




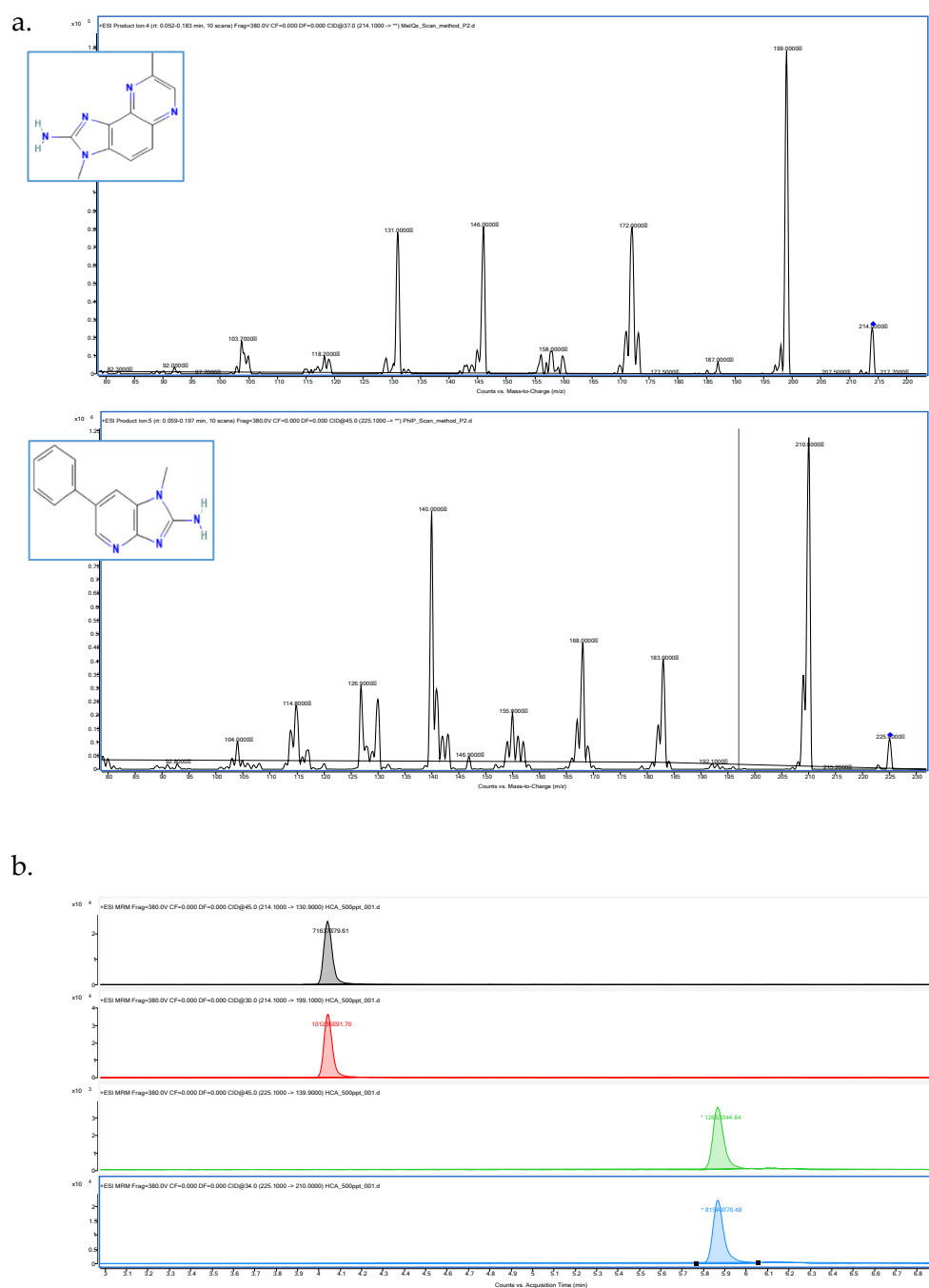
S Fig. 1. Study flow

S Table 1. Enrollment requirements

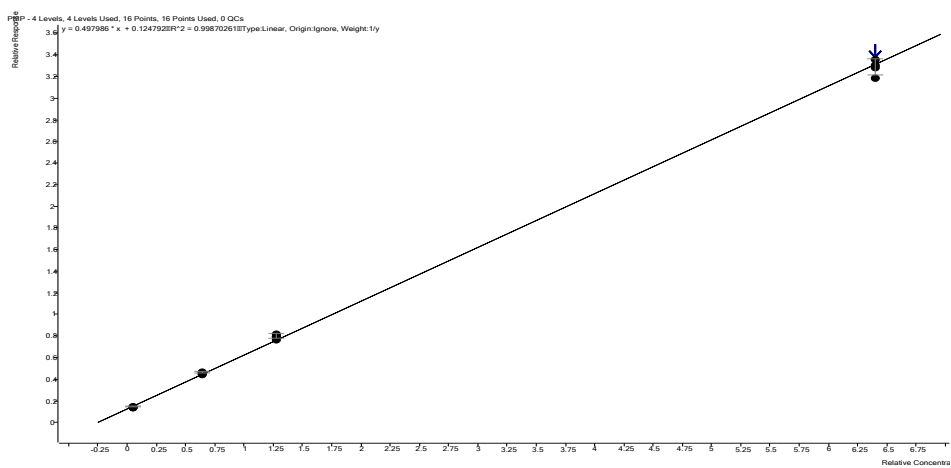
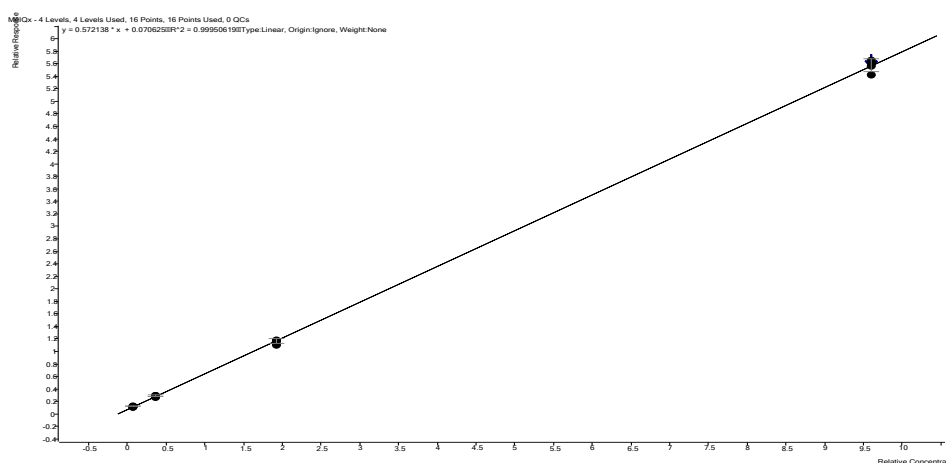
Case		Control	
Inclusion	Exclusion	Inclusion	Exclusion
1. Patients newly diagnosed (within 2 weeks) with CRC	1. Patients with any other history of cancer, polyps, or inflammatory bowel disease	1. Participants without any history of cancer, polyps, or inflammatory bowel disease	1. Participants requiring active treatment or hospitalization
2. Age over 20 years old	2. Patients treated with anti-cancer treatment, including surgery, radiation or any medication for CRC	2. Age over 20 years old	2. Participants involved in any intervention or diet modification
3. Patients ready for the first anticancer treatment for CRC	3. Patients involved in any intervention for diet modification	3. Participants who understand the questionnaire	3. Participants with family history of CRC
4. Patients who understand the questionnaire		4. Participants who agreed informed consent	4. Participants needed diet modification with diseases in kidney, heart, endocrine, liver, or gastro-intestine
5. Patients who agreed informed consent	4. Foreigners with different diet from Koreans		5. Foreigners with different diet from Koreans

S Table 2. MRM conditions and fragmentation patterns from LC/MS/MS analysis

Compound	Precursor ion (m/z)	Product ion (m/z)	Collision energy (eV)	Dwell time (msec)
MeIQx	214.1	199	30	20
		131	45	20
MeIQx-d3	217.1	199	34	20
		131	42	20
dG-C8 MeIQx	479.1	363.1	17	20
		299.1	64	20
dG-C8 MeIQx-d3	482.1	366.1	17	20
PhIP	225.1	210	34	20
		140	45	20
PhIP-d3	228.1	210	34	20
		140	45	20
dG-C8 PhIP	490.1	374.1	20	20
		250.1	60	20
dG-C8 PhIP-d3	493.1	377.1	25	20



S Fig.2. Method development for LC/MS/MS to analyze urinary MeIQx and PhIP a) MRM spectra of urinary MeIQx and PhIP displaying the correspondent structures; b) MRM chromatograms of the major molecular ions for the quantification and qualification of MeIQx and PhIP, respectively (in order from the top)



S Fig. 3. Calibration curves of PhIP (top) and MeIQx (bottom) reporting coefficients of regression (R^2) higher than 0.998"