Data from study	Variable predicted	MITRE ensemble F1	MITRE point F1	RF F1	LR F1	N, 'positive' outcome	N, total	CV type
David *et al.* (2014)	Plant-based vs. animal-based diet	0.952	0.778	0.952	0.7	10	20	leave-one-out
Kostic *et al.* (2015)	Seroconversion	1.0	1.0	0.5	0.375	11	19	leave-one-out
Di Giulio *et al.* (2015)	Premature delivery	0.833	0.833	0.0	0.222	6	37	leave-one-out
Bokulich *et al.* (2016)	Formula-dominant diet	0.818	0.64	0.154	0.526	11	35	leave-one-out
Bokulich *et al.* (2016)	Cesarean delivery	0.211	0.643	0.3	0.0	13	35	leave-one-out
Vatanen *et al.* (2016)	Russian nationality	0.833	0.833	0.909	0.833	30	113	5-fold
Vatanen *et al.* (2016)	Any allergy	0.353	0.621	0.556	0.4	49	109	5-fold
Vatanen *et al.* (2016)	Any dietary allergy	0.0	0.0	0.2	0.0	42	109	5-fold
Vatanen *et al.* (2016)	Egg allergy	0.0	0.0	0.0	0.0	25	109	5-fold
Vatanen *et al.* (2016)	Dairy allergy	0.0	0.0	0.0	0.0	32	109	5-fold
Vatanen *et al.* (2016)	Elevated IgE levels	0.0	0.0	0.0	0.0	28	109	5-fold

Table S1. The classification problems to which MITRE and the comparator methods were applied, and the performance of the methods applied to each. Full references are given in the main text. All F1 scores shown are results of cross-validation of the type shown. RF, random forest; LR, L1-regularized logistic regression; N, number of subjects; CV, crossvalidation. Total number of subjects counts only those remaining after data filtering and preprocessing as described in the manuscript and Supplementary Note (and discarding subjects for which data about the variable of interest was not available). Note that the total number of subjects given for the study of David *et al* represents the total number of time series available for classification; most individuals received plant-based and animal-based diets in sequence (with washout periods), so the true number of subjects is less than 20.