

THE ALSPAC STUDY

Child based blood assay results

Prepared by

The ALSPAC Study Team

Documentation summarising the data available and the variable names.

Last updated for version 4d of the RELEASE file.

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Introduction

This documentation simply gives a summary of the assay results that are available from blood samples from study children (cord blood through to the 24 year (F@24) clinic currently).

All assay results have now been brought together and labelled in a systematic way such that the start of the label refers to the assay and the end of the label refers to the time point.

Table 1 overleaf summarises the assays that have been completed and when. The numbers in the table refer to how many cases have data available. A cross in a cell means that assays are being completed or have been completed but the data is not yet available.

Note that samples from BBS (Before Breakfast Study – primarily CiF children assessed at 8.5 years), the 15 year clinic (TF3), the 17 year clinic (TF4) and the 24 year clinic (F24) were fasting, all others were non-fasting.

Detailed methodologies for each assay will follow in due course; many are already published in peer reviewed papers.

All users are advised to check any variables they use for distributions and outliers.

Table 2 provides a list of all variable names and labels which may assist users who will be making formal data requests.

Release File Version History:

Release version 1a – September 2013: The first version of the release file.

Release version 2a – January 2014: Haemoglobin from TF2, TF3 and TF4; Lipids and other assays from TF4 added.

Release version 3a – May 2018: Several new samples added to release file:

- Cord samples: Adiponectin; Cholesterol; Triglycerides; HDL; LDL; C-Reactive Protein; Leptin (in addition to leptin data already in previous release file); Gamma-glutamyl transpeptidase (GGT); Aminotransferases (ALT and AST); C-Peptide; Mercury; and Cobalamin (B12). Note also that folate and homocysteine cord samples were assayed, but were found to have issues so have not been published.

- Focus@7: Thyroid function (FT3; FT4 and TSH); Folate; Cobalamin (B12); Homocysteine; Methionine; Cystathionine; Cysteine; Glutathione; S-Adenosyl Methionine (SAM); and S-Adenosyl Homocysteine (SAH).
- Focus@9: Aminotransferases (ALT and AST); Gamma-glutamyl transpeptidase (GGT); and Insulin.
- Focus@11: Thyroid function (FT3; FT4 and TSH)
- Focus@15 (TF3): Aminotransferases (ALT and AST); and Thyroid function (FT3; FT4 and TSH)
- Focus@17 (TF4): Cotinine
- Infection/virus data has also been assayed at age 5 (CIF61), 7 (Focus@7), 11 (Focus@11) and 15 (TF3). Infections measures are: Epstein-Barr Virus (ebv), Cytomegalovirus (cmv), Toxoplasma gondii (tox), Saccharomyces cerevisiae (sac_cerev), Influenza (H1N1), Influenza (H3N2), Herpes Simplex Virus Type 1 (hsv1), Measles, Bovine Casein Alpha (casein_alpha), Bovine Casein Beta (casein_beta), Theiler's Virus (tv), surface antigen 1 of Toxoplasma gondii (sag1), Feline Herpes Virus (fhv) and helicobacter pylori (hpylori). Each infection measure has three associated variables: a raw optical density read of the ELISA plate ('_od'); a ratio-to-standard calculated using the standards run on every plate ('_std'); and a normalised z-score of that ratio-to-standard ('_std_z').
 - o Note also that some of these assays have the phrase 'Prelim' in the variable name and label. This is to indicate that the source of the antigens used to measure these variables was somewhat different from the antigens used in subsequent assays (i.e., the infection/virus variables which do not possess the phrase 'Prelim'). It is therefore recommended that these 'Prelim' variables are analysed separately from the other assays as the results may not be comparable.

Note also that due to possible inter-assay variability (that is, where variation within variables exists due to sampling variability), associated 'batch' variables have been included next to the relevant assays, where 'batch' data exists. Variables with these associated 'batch' variables are: IGF_Batch_Cord; IGFBP1_Batch_Cord; IGFBP3_Batch_Cord; IGF2r_Batch_Cord; Insulin_Batch_Cord; Leptin_Batch_Cord; Mercury_Batch_Cord; Leptin_IGF_Batch_CIF61; Thyroid_Batch_F7; Folate_Batch_F7; and Thyroid_Batch_TF3.

Additional minor alterations have also been included in the updated release file:

- Re-creation of IGF-I, IGF-II and leptin samples from 61 month 'Children in Focus' clinic (CIF61), due to error with previous data
- Editing variable labels for several variables (EB_CIF43; IGFBP3_TF2; TRIG_TF4; Leptin_cord; and Ferritin_cord)
- Addition of missing values for 'ema_f7' variable
- Deletion of 'AMHb_TF2' variable, as this variable contained no data
- Error in Apo and Bilirubin variable names from Table 2 also now rectified (previously Bilirubin variable name was omitted).
- Addition of 'SHBG_TF3' (Sex hormone-binding globulin) to Table 2, as was missed in previous version update

Release version 4a – March 2019: Samples from the F@24 clinic have been added to this release file. These assays include:

- Full blood count assays, which include: white blood cell count (WBC_F24); red blood cell count (RBC_F24); Haemoglobin (HB_F24); Haematocrit/packed cell volume (HCT_F24); Mean cell volume (MCV_F24); Mean cell haemoglobin (MCH_F24); Mean cell haemoglobin concentration (MCHC_F24); Platelet count (Platelets_F24); Neutrophils (Neutrophils_F24); Lymphocytes (Lymphocytes_F24); Monocytes (Monocytes_F24); Eosinophils (Eosinophils_F24); and Basophils (Basophils_F24).
- Insulin (Insulin_F24), Glucose (Glucose_F24) and C-Reactive protein (CRP_F24).
- Cholesterol assays: Cholesterol (Chol_F24); Triglycerides (Trig_F24); High-density lipoprotein (HDL_F24); Low-density lipoprotein (LDL_F24); and very low-density lipoprotein (VLDL_F24).
- Liver function assays: Gamma-glutamyl transpeptidase (GGT_F24); Alanine aminotransferase (ALT_F24); and Aspartate aminotransferase (AST_F24).
- Procollagen-3 N-terminal peptide (P3NP_F24), in addition to a batch marker in case of inter-assay variability (as the P3NP samples were processed in two batches: P3NP_Batch_F24).
- Hyaluronic acid (HA_F24), in addition to two marker variables, one of which gives details of the batch the HA samples was processed in (HA_Assay_F24). The other variable (HA_retest_F24) details whether, of the small number of original samples that were deemed implausible, whether a retest was performed to obtain a more

accurate result (note that values from samples subject to retesting may carry greater error).

Additional data has also been added to this release file. This includes:

- Placenta size and shape information (from: Barker, David, et al. "Maternal cotyledons at birth predict blood pressure in childhood." Placenta 34.8 (2013): 672-675 and Holroyd, Christopher R., et al. "Placental size is associated differentially with postnatal bone size and density." Journal of Bone and Mineral Research 31.10 (2016): 1855-1864)
- Details of genetic data available for YPs (frequencies presented below)

yp_aries ARIES methylation data is available for this person

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	14520	93.5	93.5	93.5
	1 Yes	1003	6.5	6.5	100.0
	Total	15523	99.9	100.0	
Missing	-11 Trip/Quad	13	.1		
Total		15536	100.0		

yp_GWAS_1kg 1000Genome imputation data is available for this person

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	6710	43.2	43.2	43.2
	1 Yes	8813	56.7	56.8	100.0
	Total	15523	99.9	100.0	
Missing	-11 Trip/Quad	13	.1		
Total		15536	100.0		

yp_GWAS_hrc HRC imputation data is available for this person

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	6710	43.2	43.2	43.2
	1 Yes	8813	56.7	56.8	100.0
	Total	15523	99.9	100.0	
Missing	-11 Trip/Quad	13	.1		
Total		15536	100.0		

yp_uk10k UK10K sequence/imputation genotype data is available for this person

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	13656	87.9	88.0	88.0
	1 Yes	1867	12.0	12.0	100.0
	Total	15523	99.9	100.0	
Missing	-11 Trip/Quad	13	.1		
Total		15536	100.0		

yp_bryois Gene expression data (from Bryois publication) is available for this person

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 No	14574	93.8	93.9	93.9
	1 Yes	949	6.1	6.1	100.0
	Total	15523	99.9	100.0	
Missing	-11 Trip/Quad	13	.1		
Total		15536	100.0		

IMPORTANT NOTE FOR ALL USERS: Please note that there are approximately 10 cases in the release file where all of the Focus@24 samples data has been coded as missing a value of '-99' (meaning 'consent issue'). During the cleaning process, some discrepancies regarding consents were noticed. While the decision regarding these cases is still pending, and in order for the release of this data not to be delayed, they have temporarily been coded as missing. Once a decision has been made, these cases will be altered and the data in the release file and the documentation updated accordingly.

Release version 4b – June 2019: To improve clarity, variable labels for the Focus@7 fatty acid variables (c140_F7 to c203n9pc_F7) have been updated with additional details, while variable 'tn6ratio_F7' has also been renamed as 'tn6_hufa_F7'. No changes to the data have been made.

Release version 4c – July 2019: In the previous versions of the release file there was an error in the TF4 vLDL variable (VLDL_TF4). This has now been corrected.

Release version 4d – October 2019: The units in the variable label for the cord total fatty acids (tfa_cord) has been updated from 'g/ml' to 'ug/ml'. Addition of units (ng/g wet weight) to variable labels for Se_cord through to K_cord. No changes to the underlying data have been made.

Table 1: Summary of child blood assays. An 'N/A' next to the sample means that data this assay has been processed but data is not available.

Assay	Cord	8m CIF	12m CIF	18m CIF	31m CIF	43m CIF	61m CIF	BBS *	7y	9 y	11 y	13 y	15 y	17 y	24 y
Adiponectin	4809									5083			1742		
Apolipoprotein A1 & B										5086					
Albumin									1862	5092	1693				
Alkaline Phosphatase 2									1862	5085	1693				
Aminotransferases (AST and ALT)	4788									5109			3061	3258	3267
AMH								871	484	490	483	484	3471		
Androstenedione								804							
ApoAI														3259	
Autoantibodies (IA, IA2, GAD, tTG)									5123						
Bilirubin														3258	
Calcium									1862	5089	1693				
Casein protein alpha							66		683		592		419		
Casein protein beta							66		683		592		419		
Casein protein (Prelim)							39		357		329		243		
Cholesterol - Fasting								870					3488	3287	3267
Cholesterol – Non-Fasting	4793				497	616			5435	5086					
Cobalamin (B12)	327								1116						
Cortisol								1889							
Cotinine									5575				3455	2933	
C-Peptide	4795														
CRP	4778									5086			3488	3287	3028
CTX													2916		
Cytomegalovirus							555		5010		4303		3073		
Cytomegalovirus (Prelim)							39		357		329		243		
DHEAS								807							
Epstein barr status					137	530	584								
Epstein Barr virus							555		5010		4303		3073		
Fatty acid profiles (red blood cells)	1693				356	595									
Fatty acid profiles	3926								5571						
Feline herpes virus							294		2764		3287		1674		

Assay	Cord	8m CIF	12m CIF	18m CIF	31m CIF	43m CIF	61m CIF	BBS *	7y	9 y	11 y	13 y	15 y	17 y	24 y
Ferritin	3804	754	752	783											
Free fatty acids								870							
Folate	332 (N/A)								1133						
Gamma GT	4692									5097			3061	3258	3266
Globulin										5089	1693				
Glucose – Fasting								894					3488	3287	3267
Glucose – post glucose								829							
Growth hormone binding protein								802							
Haemoglobin		1074	920	815	584	718	622		5581	5189	4718	3248	3523	3318	3214
Haptoglobin														3259	
HbA1C										1793					
HDL cholesterol – fasting								870			3488		3488	3287	3267
HDL cholesterol – non fasting	4696				369	612			5453	5086					
Helicobacter pylori status					139	541	565								
Helicobacter pylori							528		4683		4039		2897		
Hepatitis A status					123	541	585								
Herpes Simplex virus 1							66		683		592		419		
Herpes Simplex virus 1 (Prelim)							39		357		329		243		
Homocysteine	332 (N/A)								1133						
Hyaluronic Acid (HA)															3174
IgE		144	494	448					5267						
IgE specific						608	607								
IGFI	679						602	423	282	49	30	10			
IGFII	681						602		211	84	30	10			
IGF2r	198														
IGFBP1	194							894							
IGFBP3	197							423	282	49	30	9			
Influenza (H1N1)							66		683		592		419		
Influenza (H3N2)							66		683		592		419		
Insulin – fasting								894		5057			3484	3233	3267

Assay	Cord	8m CIF	12m CIF	18m CIF	31m CIF	43m CIF	61m CIF	BBS *	7y	9 y	11 y	13 y	15 y	17 y	24 y
Insulin – non fasting	677														
Insulin – post glucose								829							
Interleukin-6										5076					
LDL cholesterol - fasting								870					3488	3287	3265
LDL cholesterol – non fasting					373	616			5453	5086					
Leptin	4924						610	870		5084					
Leukocytes (Neutrophils, Lymphocytes, monocytes, eosinophils and basophils)															3214
Measles							66		683		592		419		
Measles (Prelim)							39		357		329		243		
Mercury	2404														
Parathyroid hormone									1862	5094	1693				
Phosphate									1862	5095	1693				
Platelets															3208
Procollagen-3 N-Terminal Peptide (P3NP)															3196
Proinsulin (intact and 32-33 split)								872							
Protein									1862	5084	1693				
Red blood cell count															3214
Saccharomyces cerevisiae							39		357		329		243		
Sex hormone binding globulin (SHBG)								870					1733		
Surface antigen 1 of toxoplasma gondii (SAG1)							138		1228		1057		745		
Testosterone													1788		
Toxoplasma gondii							555		5010		4303		3073		
Toxoplasma gondii (Prelim)							39		357		329		243		
Trace metals	2900														
Theiler's virus							66		683		592		419		
Thyroid function									4568		486		1337		
Triglycerides - fasting								870					3408	3287	3266
Triglycerides – non fasting	4773				497	616			5453	5086					
Vitamin D2 (25(OH)D2)									1059	4446	1008				

Assay	Cord	8m CIF	12m CIF	18m CIF	31m CIF	43m CIF	61m CIF	BBS *	7y	9 y	11 y	13 y	15 y	17 y	24 y
Vitamin D3 (25(OH)D3)									1058	4445	1008				
vLDL - fasting													3408	3287	3265
vLDL – non fasting										5086					
White blood cell count															3214

*BBS was a substudy of CIF children performed when they were 8.5 years of age where fasting bloods and urine were collected

X means the assays are either being completed or are not yet available for general use; the numbers in brackets are the numbers of samples sent for assay.

Table 2: Summary of child urine assays and other miscellaneous samples

Assay	Timepoint	Number of samples
Placenta size and shape	Placenta	1705
Urinary adrenal steroids	BBS*	465 (X)

*BBS was a substudy of CIF children performed when they were 8.5 years of age where fasting bloods and urine were collected.

X means the assays are either being completed or are not yet available for general use; the numbers in brackets are the numbers of samples sent for assay.

Table 3: variable names and labels

Variable	Label
Ferritin_cord	Ferritin mg/l, Cord Blood
IGF1_cord	IGF I ng/ml, Cord Blood
IGF2_cord	IGF II ng/ml, Cord Blood
IGF_Batch_Cord	Batch details for IGF-I and IGF-II cord data: Cord
IGFBP1_cord	IGFBP1 ng/ml, Cord Blood
IGFBP1_Batch_Cord	Batch details for IGFBP1 cord data: Cord
IGFBP3_cord	IGFBP3 ng/ml, Cord Blood
IGFBP3_Batch_Cord	Batch details for IGFBP3 cord data: Cord
IGF2r_cord	soluble IGF2R ng/ml, Cord Blood
IGF2r_Batch_Cord	Batch details for IGF2r cord data: Cord
Insulin_cord	Insulin mu/L, Cord Blood
Insulin_Batch_Cord	Batch details for insulin cord data: Cord
Leptin_cord	Leptin ng/ml, Cord Blood
Leptin_Batch_Cord	Batch details for cord leptin data: Cord
adiponectin_cord	Adiponectin µg/ml, cord
chol_cord	Cholesterol mmol/L, cord
trig_cord	Triglycerides mmol/L, cord
HDL_cord	High-density lipoprotein (HDL) mmol/L, cord
LDL_cord	Low-density lipoprotein (LDL) mmol/L, cord
CRP_cord	C-Reactive Protein mg/L, cord
GGT_cord	Gamma-glutamyl transpeptidase (GGT) U/L, cord
ALT_cord	Alanine aminotransferase (ALT) U/L, cord
AST_cord	Aspartate aminotransferase (AST) U/L, cord
cpeptide_cord	C-Peptide ng/ml, cord
mercury_cord	Mercury µg/kg, cord
Mercury_Batch_Cord	Batch details for cord mercury data: Cord
Cobalamin_cord	Cobalamin (B12) pmol/L, Cord
rpl120_cord	Fatty acids (red blood cells)- 120, Cord
rpl130_cord	Fatty acids (red blood cells)- 130, Cord
rpl140_cord	Fatty acids (red blood cells)- 140, Cord
rpl141n5_cord	Fatty acids (red blood cells)- 141:5, Cord
rpl150_cord	Fatty acids (red blood cells)- 150, Cord
rpl160_cord	Fatty acids (red blood cells)- 160, Cord
rpl161n7_cord	Fatty acids (red blood cells)- 161:7, Cord
rpl170_cord	Fatty acids (red blood cells)- 170, Cord
rpl171n7_cord	Fatty acids (red blood cells)- 171:7, Cord
rpl180_cord	Fatty acids (red blood cells)- 180, Cord
rpl181n7_cord	Fatty acids (red blood cells)- 181:7, Cord
rpl181n9_cord	Fatty acids (red blood cells)- 181:9, Cord
rpl181n12_cord	Fatty acids (red blood cells)- 181:12, Cord

Variable	Label
rpl182n6_cord	Fatty acids (red blood cells)- 182:6, Cord
rpl183n6_cord	Fatty acids (red blood cells)- 183:6, Cord
rpl183n3_cord	Fatty acids (red blood cells)- 183:3, Cord
rpl184n3_cord	Fatty acids (red blood cells)- 184:3, Cord
rpl190_cord	Fatty acids (red blood cells)- 190, Cord
rpl200_cord	Fatty acids (red blood cells)- 200, Cord
rpl201n9_cord	Fatty acids (red blood cells)- 201:9, Cord
rpl202n6_cord	Fatty acids (red blood cells)- 202:6, Cord
rpl203n3_cord	Fatty acids (red blood cells)- 203:3, Cord
rpl203n6_cord	Fatty acids (red blood cells)- 203:6, Cord
rpl203n9_cord	Fatty acids (red blood cells)- 203:9, Cord
rpl204n6_cord	Fatty acids (red blood cells)- 204:6, Cord
rpl205n3_cord	Fatty acids (red blood cells)- 205:3, Cord
rpl210_cord	Fatty acids (red blood cells)- 210, Cord
rpl211n9_cord	Fatty acids (red blood cells)- 211:9, Cord
rpl220_cord	Fatty acids (red blood cells)- 220, Cord
rpl221n9_cord	Fatty acids (red blood cells)- 221:9, Cord
rpl222n6_cord	Fatty acids (red blood cells)- 222:6, Cord
rpl230_cord	Fatty acids (red blood cells)- 230, Cord
rpl224n6_cord	Fatty acids (red blood cells)- 224:6, Cord
rpl225n6_cord	Fatty acids (red blood cells)- 225:6, Cord
rpl225n3_cord	Fatty acids (red blood cells)- 225:3, Cord
rpl226n3_cord	Fatty acids (red blood cells)- 226:3, Cord
rpl223n3_cord	Fatty acids (red blood cells)- 223:3, Cord
rpl231n9_cord	Fatty acids (red blood cells)- 231:9, Cord
rpl240_cord	Fatty acids (red blood cells)- 240, Cord
rpl241n9_cord	Fatty acids (red blood cells)- 241:9, Cord
c140_cord	Fatty acids - 14:0, cord
c160_cord	Fatty acids - 16:0 , cord
c180_cord	Fatty acids - 18:0 , cord
c200_cord	Fatty acids - 20:0 , cord
c220_cord	Fatty acids - 22:0 , cord
c240_cord	Fatty acids - 24:0 , cord
c161n7_cord	Fatty acids - 16:1n7, cord
c181n7_cord	Fatty acids - 18:1n7, cord
c181n9_cord	Fatty acids - 18:1n9, cord
c201n9_cord	Fatty acids - 20:1n9, cord
c241n9_cord	Fatty acids - 24:1n9, cord
c182n6_cord	Fatty acids - 18:2n6, cord
c183n6_cord	Fatty acids - 18:3n6, cord
c202n6_cord	Fatty acids - 20:2n6, cord
c203n6_cord	Fatty acids - 20:3n6, cord

Variable	Label
c204n6_cord	Fatty acids - 20:4n6, cord
c224n6_cord	Fatty acids - 22:4n6, cord
c225n6_cord	Fatty acids - 22:5n6, cord
c183n3_cord	Fatty acids - 18:3n3, cord
c205n3_cord	Fatty acids - 20:5n3, cord
c225n3_cord	Fatty acids - 22:5n3, cord
c226n3_cord	Fatty acids - 22:6n3, cord
tfa_cord	Total Fatty acids ug/ml, cord
tsfa_cord	Fatty acids - Percent saturates, cord
tmufa_cord	Fatty acids - Percent Monounsaturates, cord
c140pc_cord	Fatty acids - percent 14:0, cord
c160pc_cord	Fatty acids - percent 16:0, cord
c180pc_cord	Fatty acids - percent 18:0, cord
c200pc_cord	Fatty acids - percent 20:0, cord
c220pc_cord	Fatty acids - percent 22:0, cord
c240pc_cord	Fatty acids - percent 24:0, cord
c161n7pc_cord	Fatty acids - percent 16:1n7, cord
c181n7pc_cord	Fatty acids - percent 18:1n7, cord
c181n9pc_cord	Fatty acids - percent 18:1n9, cord
c201n9pc_cord	Fatty acids - percent 20:1n9, cord
c241n9pc_cord	Fatty acids - percent 24:1n9, cord
c182n6pc_cord	Fatty acids - percent 18:2n6, cord
c183n6pc_cord	Fatty acids - percent 18:3n6, cord
c202n6pc_cord	Fatty acids - percent 20:2n6, cord
c203n6pc_cord	Fatty acids - percent 20:3n6, cord
c204n6pc_cord	Fatty acids - percent 20:4n6, cord
c224n6pc_cord	Fatty acids - percent 22:4n6, cord
c225n6pc_cord	Fatty acids - percent 22:5n6, cord
c183n3pc_cord	Fatty acids - 148:3n3, cord
c205n3pc_cord	Fatty acids - percent 20:5n3, cord
c225n3pc_cord	Fatty acids - percent 22:5n3, cord
c226n3pc_cord	Fatty acids - percent 22:6n3, cord
tmmachine_cord	Trace metals - machine used, Cord
Se_cord	Trace metals - Se level, cord (ng/g wet weight)
Mg_cord	Trace metals - Mg level, cord (ng/g wet weight)
Ca_cord	Trace metals - Ca level, cord (ng/g wet weight)
Cr_cord	Trace metals - Cr level, cord (ng/g wet weight)
Mn_cord	Trace metals - Mn level, cord (ng/g wet weight)
Fe_cord	Trace metals - Fe level, cord (ng/g wet weight)
Co_cord	Trace metals - Co level, cord (ng/g wet weight)
Ni_cord	Trace metals - Ni level, cord (ng/g wet weight)
Cu_cord	Trace metals - Cu level, cord (ng/g wet weight)

Variable	Label
Zn_cord	Trace metals - Zn level, cord (ng/g wet weight)
Sr_cord	Trace metals - Sr level, cord (ng/g wet weight)
Mo_cord	Trace metals - Mo level, cord (ng/g wet weight)
Cd_cord	Trace metals - Cd level, cord (ng/g wet weight)
Sb_cord	Trace metals - Sb level, cord (ng/g wet weight)
Hg_cord	Trace metals - Hg level, cord (ng/g wet weight)
Pb_cord	Trace metals - Pb level, cord (ng/g wet weight)
K_cord	Trace metals - K level, cord (ng/g wet weight)
Placenta_Abnormal	Placenta is abnormal in some way, Placenta
Placenta_Length	Length of placenta (cm), Placenta
Placenta_Breadth	Breadth of placenta (cm), Placenta
Placenta_Cotyledons	Number of cotyledons (not exact), Placenta
Placenta_Thickness	Disc thickness at thickest point (cm), Placenta
Placenta_Weight	Placenta weight (g), Placenta
Placenta_CordLen	Cord length (cm), Placenta
Placenta_Distance1	Dist from cord insertion to len/breadth intersect along len (cm), Placenta
Placenta_Distance2	Dist from cord insertion to len/breadth intersect along breadth (cm), Placenta
Placenta_Distance3	Distance from cord insertion to nearest margin (edge of disc: cm), Placenta
Placenta_Photos	Number of photos of sample, Placenta
Placenta_Comments	Additional comments about placenta noted, Placenta
Ferritin_CIF8	Ferritin mg/l, 8mth CIF
HB_CIF8	Haemoglobin, 8mth CIF
IGE_CIF8	IGE ku/l, 8mth CIF
Ferritin_CIF12	Ferritin mg/l, 12mth CIF
HB_CIF12	Haemoglobin, 12mth CIF
IGE_CIF12	IGE ku/l, 12mth CIF
Ferritin_CIF18	Ferritin mg/l, 18mth CIF
HB_CIF18	Haemoglobin, 18mth CIF
IGE_CIF18	IGE ku/l, 18mth CIF
HB_CIF31	Haemoglobin, 31mth CIF
Helico_CIF31	Helicobacter pylori status, 31mth CIF
HepA_CIF31	Hepatitis A status, 31mth CIF
EB_CIF31	Epstein Barr status, 31mth CIF
Trig_CIF31	Triglycerides mmol/l, 31mth CIF
Chol_CIF31	Cholesterol mmol/l, 31mth CIF
LDL_CIF31	LDL mmol/l, 31mth CIF
HDL_CIF31	HDL mmol/l, 31mth CIF
rpl120_CIF31	Fatty acids (red blood cells)- 120, 31mth CIF
rpl130_CIF31	Fatty acids (red blood cells)- 130, 31mth CIF
rpl140_CIF31	Fatty acids (red blood cells)- 140, 31mth CIF
rpl141n5_CIF31	Fatty acids (red blood cells)- 141:5, 31mth CIF
rpl150_CIF31	Fatty acids (red blood cells)- 150, 31mth CIF

Variable	Label
rpl160_CIF31	Fatty acids (red blood cells)- 160, 31mth CIF
rpl161n7_CIF31	Fatty acids (red blood cells)- 161:7, 31mth CIF
rpl170_CIF31	Fatty acids (red blood cells)- 170, 31mth CIF
rpl171n7_CIF31	Fatty acids (red blood cells)- 171:7, 31mth CIF
rpl180_CIF31	Fatty acids (red blood cells)- 180, 31mth CIF
rpl181n7_CIF31	Fatty acids (red blood cells)- 181:7, 31mth CIF
rpl181n9_CIF31	Fatty acids (red blood cells)- 181:9, 31mth CIF
rpl181n12_CIF31	Fatty acids (red blood cells)- 181:12, 31mth CIF
rpl182n6_CIF31	Fatty acids (red blood cells)- 182:6, 31mth CIF
rpl183n6_CIF31	Fatty acids (red blood cells)- 183:6, 31mth CIF
rpl183n3_CIF31	Fatty acids (red blood cells)- 183:3, 31mth CIF
rpl184n3_CIF31	Fatty acids (red blood cells)- 184:3, 31mth CIF
rpl190_CIF31	Fatty acids (red blood cells)- 190, 31mth CIF
rpl200_CIF31	Fatty acids (red blood cells)- 200, 31mth CIF
rpl201n9_CIF31	Fatty acids (red blood cells)- 201:9, 31mth CIF
rpl202n6_CIF31	Fatty acids (red blood cells)- 202:6, 31mth CIF
rpl203n3_CIF31	Fatty acids (red blood cells)- 203:3, 31mth CIF
rpl203n6_CIF31	Fatty acids (red blood cells)- 203:6, 31mth CIF
rpl203n9_CIF31	Fatty acids (red blood cells)- 203:9, 31mth CIF
rpl204n6_CIF31	Fatty acids (red blood cells)- 204:6, 31mth CIF
rpl205n3_CIF31	Fatty acids (red blood cells)- 205:3, 31mth CIF
rpl210_CIF31	Fatty acids (red blood cells)- 210, 31mth CIF
rpl211n9_CIF31	Fatty acids (red blood cells)- 211:9, 31mth CIF
rpl220_CIF31	Fatty acids (red blood cells)- 220, 31mth CIF
rpl221n9_CIF31	Fatty acids (red blood cells)- 221:9, 31mth CIF
rpl222n6_CIF31	Fatty acids (red blood cells)- 222:6, 31mth CIF
rpl230_CIF31	Fatty acids (red blood cells)- 230, 31mth CIF
rpl224n6_CIF31	Fatty acids (red blood cells)- 224:6, 31mth CIF
rpl225n6_CIF31	Fatty acids (red blood cells)- 225:6, 31mth CIF
rpl225n3_CIF31	Fatty acids (red blood cells)- 225:3, 31mth CIF
rpl226n3_CIF31	Fatty acids (red blood cells)- 226:3, 31mth CIF
rpl223n3_CIF31	Fatty acids (red blood cells)- 223:3, 31mth CIF
rpl231n9_CIF31	Fatty acids (red blood cells)- 231:9, 31mth CIF
rpl240_CIF31	Fatty acids (red blood cells)- 240, 31mth CIF
rpl241n9_CIF31	Fatty acids (red blood cells)- 241:9, 31mth CIF
HB_CIF43	Haemoglobin, 43mth CIF
Helico_CIF43	Helicobacter pylori status, 43mth CIF
HepA_CIF43	Hepatitis A status, 43mth CIF
EB_CIF43	Epstein Barr status, 43mth CIF
Trig_CIF43	Triglycerides mmol/l, 43mth CIF
Chol_CIF43	Cholesterol mmol/l, 43mth CIF
LDL_CIF43	LDL mmol/l, 43mth CIF

Variable	Label
HDL_CIF43	HDL mmol/l, 43mth CIF
IgEpeanut_CIF43	Specific IgE to peanut, 43mth CIF
IgEsoya_CIF43	Specific IgE to soya, 43mth CIF
IgEegg_CIF43	Specific IgE to egg, 43mth CIF
IgEmilk_CIF43	Specific IgE to milk, 43mth CIF
IgEfish_CIF43	Specific IgE to fish, 43mth CIF
rpl120_CIF43	Fatty acids (red blood cells)- 120, 43mth CIF
rpl130_CIF43	Fatty acids (red blood cells)- 130, 43mth CIF
rpl140_CIF43	Fatty acids (red blood cells)- 140, 43mth CIF
rpl141n5_CIF43	Fatty acids (red blood cells)- 141:5, 43mth CIF
rpl150_CIF43	Fatty acids (red blood cells)- 150, 43mth CIF
rpl160_CIF43	Fatty acids (red blood cells)- 160, 43mth CIF
rpl161n7_CIF43	Fatty acids (red blood cells)- 161:7, 43mth CIF
rpl170_CIF43	Fatty acids (red blood cells)- 170, 43mth CIF
rpl171n7_CIF43	Fatty acids (red blood cells)- 171:7, 43mth CIF
rpl180_CIF43	Fatty acids (red blood cells)- 180, 43mth CIF
rpl181n7_CIF43	Fatty acids (red blood cells)- 181:7, 43mth CIF
rpl181n9_CIF43	Fatty acids (red blood cells)- 181:9, 43mth CIF
rpl181n12_CIF43	Fatty acids (red blood cells)- 181:12, 43mth CIF
rpl182n6_CIF43	Fatty acids (red blood cells)- 182:6, 43mth CIF
rpl183n6_CIF43	Fatty acids (red blood cells)- 183:6, 43mth CIF
rpl183n3_CIF43	Fatty acids (red blood cells)- 183:3, 43mth CIF
rpl184n3_CIF43	Fatty acids (red blood cells)- 184:3, 43mth CIF
rpl190_CIF43	Fatty acids (red blood cells)- 190, 43mth CIF
rpl200_CIF43	Fatty acids (red blood cells)- 200, 43mth CIF
rpl201n9_CIF43	Fatty acids (red blood cells)- 201:9, 43mth CIF
rpl202n6_CIF43	Fatty acids (red blood cells)- 202:6, 43mth CIF
rpl203n3_CIF43	Fatty acids (red blood cells)- 203:3, 43mth CIF
rpl203n6_CIF43	Fatty acids (red blood cells)- 203:6, 43mth CIF
rpl203n9_CIF43	Fatty acids (red blood cells)- 203:9, 43mth CIF
rpl204n6_CIF43	Fatty acids (red blood cells)- 204:6, 43mth CIF
rpl205n3_CIF43	Fatty acids (red blood cells)- 205:3, 43mth CIF
rpl210_CIF43	Fatty acids (red blood cells)- 210, 43mth CIF
rpl211n9_CIF43	Fatty acids (red blood cells)- 211:9, 43mth CIF
rpl220_CIF43	Fatty acids (red blood cells)- 220, 43mth CIF
rpl221n9_CIF43	Fatty acids (red blood cells)- 221:9, 43mth CIF
rpl222n6_CIF43	Fatty acids (red blood cells)- 222:6, 43mth CIF
rpl230_CIF43	Fatty acids (red blood cells)- 230, 43mth CIF
rpl224n6_CIF43	Fatty acids (red blood cells)- 224:6, 43mth CIF
rpl225n6_CIF43	Fatty acids (red blood cells)- 225:6, 43mth CIF
rpl225n3_CIF43	Fatty acids (red blood cells)- 225:3, 43mth CIF
rpl226n3_CIF43	Fatty acids (red blood cells)- 226:3, 43mth CIF

Variable	Label
rpl223n3_CIF43	Fatty acids (red blood cells)- 223:3, 43mth CIF
rpl231n9_CIF43	Fatty acids (red blood cells)- 231:9, 43mth CIF
rpl240_CIF43	Fatty acids (red blood cells)- 240, 43mth CIF
rpl241n9_CIF43	Fatty acids (red blood cells)- 241:9, 43mth CIF
HB_CIF61	Haemoglobin, 61mth CIF
IGF1_CIF61	IGF I ng/ml, 61mth CIF
IGF2_CIF61	IGF II ng/ml, 61mth CIF
Leptin_CIF61	Leptin ng/ml, 61mth CIF
Leptin_IGF_Batch_CIF61	Batch details for leptin and IGF 61 month CIF data: 61 mth CIF
Helico_CIF61	Helicobacter pylori status, 61mth CIF
HepA_CIF61	Hepatitis A status, 61mth CIF
EB_CIF61	Epstein Barr status, 61mth CIF
IgEpeanut_CIF61	Specific IgE to peanut, 61mth CIF
IgEsoya_CIF61	Specific IgE to soya, 61mth CIF
IgEegg_CIF61	Specific IgE to egg, 61mth CIF
IgEmilk_CIF61	Specific IgE to milk, 61mth CIF
additive_CIF61	blood sample additive used, 61mth CIF
sam_code_CIF61	sample code, 61mth CIF
sample_type_CIF61	sample type, 61mth CIF
ebv_od_CIF61	Epstein-Barr virus - raw optical density units, 61mth CIF
ebv_std_CIF61	Epstein-Barr virus - ratio to standard, 61mth CIF
ebv_std_z_CIF61	Epstein-Barr virus - ratio to standard z-score, 61mth CIF
cmv_od_CIF61	cytomegalovirus - raw optical density units, 61mth CIF
cmv_std_CIF61	cytomegalovirus - ratio to standard, 61mth CIF
cmv_std_z_CIF61	cytomegalovirus - ratio to standard z-score, 61mth CIF
toxod_od_CIF61	toxoplasma gondii - raw optical density units, 61mth CIF
toxod_std_CIF61	toxoplasma gondii - ratio to standard, 61mth CIF
toxod_std_z_CIF61	toxoplasma gondii - ratio to standard z-score, 61mth CIF
sac_cerev_od_CIF61	saccharomyces cerevisiae - raw optical density units, 61mth CIF
sac_cerev_std_CIF61	saccharomyces cerevisiae - ratio to standard, 61mth CIF
sac_cerev_std_z_CIF61	saccharomyces cerevisiae - ratio to standard z-score, 61mth CIF
h1n1_od_CIF61	influenza virus subtype H1N1 - raw optical density units, 61mth CIF
h1n1_std_CIF61	influenza virus subtype H1N1 - ratio to standard, 61mth CIF
h1n1_std_z_CIF61	influenza virus subtype H1N1 - ratio to standard z-score, 61mth CIF
h3n2_od_CIF61	influenza virus subtype H3N2 - raw optical density units, 61mth CIF
h3n2_std_CIF61	influenza virus subtype H3N2 - ratio to standard, 61mth CIF
h3n2_std_z_CIF61	influenza virus subtype H3N2 - ratio to standard z-score, 61mth CIF
hsv1_od_CIF61	herpes simplex virus 1 - raw optical density units, 61mth CIF
hsv1_std_CIF61	herpes simplex virus 1 - ratio to standard, 61mth CIF
hsv1_std_z_CIF61	herpes simplex virus 1 - ratio to standard z-score, 61mth CIF
measles_od_CIF61	measles virus - raw optical density units, 61mth CIF
measles_std_CIF61	measles virus - ratio to standard, 61mth CIF

Variable	Label
measles_std_z_CIF61	measles virus - ratio to standard z-score, 61mth CIF
casein_alpha_od_CIF61	alpha-casein protein - raw optical density units, 61mth CIF
casein_alpha_std_CIF61	alpha-casein protein - ratio to standard, 61mth CIF
casein_alpha_std_z_CIF61	alpha-casein protein - ratio to standard z-score, 61mth CIF
casein_beta_od_CIF61	beta-casein protein - raw optical density units, 61mth CIF
casein_beta_std_CIF61	beta-casein protein - ratio to standard, 61mth CIF
casein_beta_std_z_CIF61	beta-casein protein - ratio to standard z-score, 61mth CIF
tv_od_CIF61	Theiler's virus - raw optical density units, 61mth CIF
tv_std_CIF61	Theiler's virus - ratio to standard, 61mth CIF
tv_std_z_CIF61	Theiler's virus - ratio to standard z-score, normalized per plate, 61mth CIF
sag1_od_CIF61	SAG1 protein domain - raw optical density units, 61mth CIF
sag1_std_CIF61	SAG1 protein domain - ratio to standard, 61mth CIF
sag1_std_z_CIF61	SAG1 protein domain - ratio to standard z-score, 61mth CIF
fhv_od_CIF61	feline herpesvirus - raw optical density units, 61mth CIF
fhv_std_CIF61	feline herpesvirus - ratio to standard, 61mth CIF
fhv_std_z_CIF61	feline herpesvirus - ratio to standard z-score, 61mth CIF
hpylori_od_CIF61	helicobacter pylori - raw optical density units, 61mth CIF
hpylori_iu_CIF61	helicobacter pylori - international units, 61mth CIF
hpylori_std_z_CIF61	helicobacter pylori - ratio to standard z-score, 61mth CIF
additive_Prelim_CIF61	blood sample additive used, Prelim, 61mth CIF
sam_code_Prelim_CIF61	sample code, Prelim, 61mth CIF
cmv_od_Prelim_CIF61	cytomegalovirus - raw optical density units, Prelim, 61mth CIF
cmv_std_Prelim_CIF61	cytomegalovirus - ratio to standard, Prelim, 61mth CIF
cmv_std_z_Prelim_CIF61	cytomegalovirus - ratio to standard z-score, Prelim, 61mth CIF
toxod_od_Prelim_CIF61	toxoplasma gondii - raw optical density units, Prelim, 61mth CIF
toxod_std_Prelim_CIF61	toxoplasma gondii - ratio to standard, Prelim, 61mth CIF
toxod_std_z_Prelim_CIF61	toxoplasma gondii - ratio to standard z-score, Prelim, 61mth CIF
hsv1_od_Prelim_CIF61	herpes simplex virus 1 - raw optical density units, Prelim, 61mth CIF
hsv1_std_Prelim_CIF61	herpes simplex virus 1 - ratio to standard, Prelim, 61mth CIF
hsv1_std_z_Prelim_CIF61	herpes simplex virus 1 - ratio to standard z-score, Prelim, 61mth CIF
measles_od_Prelim_CIF61	measles virus - raw optical density units, Prelim, 61mth CIF
measles_std_Prelim_CIF61	measles virus - ratio to standard, Prelim, 61mth CIF
measles_std_z_Prelim_CIF61	measles virus - ratio to standard z-score, Prelim, 61mth CIF
casein_od_Prelim_CIF61	casein protein - raw optical density units, Prelim, 61mth CIF
casein_std_z_Prelim_CIF61	casein protein - ratio to standard z-score, Prelim, 61mth CIF
Glucose_BBS	Fasting glucose mmol/l, BBS
Insulin_BBS	Fasting insulin mu/l, BBS
pg_glucose_BBS	Post-glucose glucose mmol/l, BBS
pg_insulin_BBS	Post-glucose insulin mu/l, BBS
IProinsulin_bbs	Intact proinsulin pmol/l, BBS
SProinsulin_BBS	32-33 split proinsulin pmol/l, BBS
Chol_BBS	Cholesterol mmol/l, BBS

Variable	Label
Trig_BBS	Triglycerides mmol/l, BBS
HDL_BBS	HDL mmol/l, BBS
LDL_BBS	LDL mmol/l, BBS
IGF1_BBS	IGF I ng/ml, BBS
IGFBP1_BBS	IGFBP1 ng/ml, BBS
IGFBP3_BBS	IGFBP3 ng/ml, BBS
FFA_BBS	Free fatty acids mmol/l, BBS
Cort_BBS	Cortisol nmol/l, BBS
Andro_BBS	Androstenedione ng/dl, BBS
DHEAS_BBS	Dehydroepiandrosterone mcg/dl, BBS
SHBG_BBS	Sex hormone-binding globulin nmol/l, BBS
GHBP_BBS	Growth hormone binding protein ng/ml, BBS
Leptin_BBS	Leptin ng/ml, BBS
AMH_BBS	Anti-Müllerian hormone, BBS
hb_F7	Haemoglobin, Focus@7
IGF1_F7	IGF1, F7
IGFBP3_F7	IGFBP3, F7
IGE_F7	IGE ku/l, Focus@7
CHOL_F7	Cholesterol mmol/l, Focus@7
TRIG_F7	Triglycerides mmol/l, Focus@7
HDL_F7	HDL mmol/l, Focus@7
LDL_F7	LDL mmol/l, Focus@7
Cotinine_F7	Cotinine ng/ml, Focus@7
c140_F7	Fatty acids - 14:0 (ug/ml), Focus@7
c160_F7	Fatty acids - 16:0 (ug/ml), Focus@7
c180_F7	Fatty acids - 18:0 (ug/ml), Focus@7
c200_F7	Fatty acids - 20:0 (ug/ml), Focus@7
c220_F7	Fatty acids - 22:0 (ug/ml), Focus@7
c240_F7	Fatty acids - 24:0 (ug/ml), Focus@7
c161n7_F7	Fatty acids - 16:1n7 (ug/ml), Focus@7
c181n7_F7	Fatty acids - 18:1n7 (ug/ml), Focus@7
c181n9_F7	Fatty acids - 18:1n9 (ug/ml), Focus@7
c201n9_F7	Fatty acids - 20:1n9 (ug/ml), Focus@7
c241n9_F7	Fatty acids - 24:1n9 (ug/ml), Focus@7
c182n6_F7	Fatty acids - 18:2n6 (ug/ml), Focus@7
c183n6_F7	Fatty acids - 18:3n6 (ug/ml), Focus@7
c202n6_F7	Fatty acids - 20:2n6 (ug/ml), Focus@7
c203n6_F7	Fatty acids - 20:3n6 (ug/ml), Focus@7
c204n6_F7	Fatty acids - 20:4n6 (ug/ml), Focus@7
c224n6_F7	Fatty acids - 22:4n6 (ug/ml), Focus@7
c225n6_F7	Fatty acids - 22:5n6 (ug/ml), Focus@7
c183n3_F7	Fatty acids - 18:3n3 (ug/ml), Focus@7

Variable	Label
c205n3_F7	Fatty acids - 20:5n3 (ug/ml), Focus@7
c225n3_F7	Fatty acids - 22:5n3 (ug/ml), Focus@7
c226n3_F7	Fatty acids - 22:6n3 (ug/ml), Focus@7
c203n9_F7	Fatty acids - 20:3n9 (ug/ml), Focus@7
tfa_F7	Total Fatty acids (ug/ml), Focus@7
tsfa_F7	Fatty acids - Percent saturates in total fatty acids, Focus@7
tmufa_F7	Fatty acids - Percent Monounsaturates in total fatty acids, Focus@7
tn6_F7	Fatty acids - Percent n-6 in total fatty acids, Focus@7
tn3_F7	Fatty acids - Percent n-3 in total fatty acids, Focus@7
tn6_hufa_F7	Fatty acids – Percent n-6 in HUFA, Focus@7
c140pc_F7	Fatty acids - percent 14:0 in total fatty acids, Focus@7
c160pc_F7	Fatty acids - percent 16:0 in total fatty acids, Focus@7
c180pc_F7	Fatty acids - percent 18:0 in total fatty acids, Focus@7
c200pc_F7	Fatty acids - percent 20:0 in total fatty acids, Focus@7
c220pc_F7	Fatty acids - percent 22:0 in total fatty acids, Focus@7
c240pc_F7	Fatty acids - percent 24:0 in total fatty acids, Focus@7
c161n7pc_F7	Fatty acids - percent 16:1n7 in total fatty acids, Focus@7
c181n7pc_F7	Fatty acids - percent 18:1n7 in total fatty acids, Focus@7
c181n9pc_F7	Fatty acids - percent 18:1n9 in total fatty acids, Focus@7
c201n9pc_F7	Fatty acids - percent 20:1n9 in total fatty acids, Focus@7
c241n9pc_F7	Fatty acids - percent 24:1n9 in total fatty acids, Focus@7
c182n6pc_F7	Fatty acids - percent 18:2n6 in total fatty acids, Focus@7
c183n6pc_F7	Fatty acids - percent 18:3n6 in total fatty acids, Focus@7
c202n6pc_F7	Fatty acids - percent 20:2n6 in total fatty acids, Focus@7
c203n6pc_F7	Fatty acids - percent 20:3n6 in total fatty acids, Focus@7
c204n6pc_F7	Fatty acids - percent 20:4n6 in total fatty acids, Focus@7
c224n6pc_F7	Fatty acids - percent 22:4n6 in total fatty acids, Focus@7
c225n6pc_F7	Fatty acids - percent 22:5n6 in total fatty acids, Focus@7
c183n3pc_F7	Fatty acids - percent 18:3n3 in total fatty acids, Focus@7
c205n3pc_F7	Fatty acids - percent 20:5n3 in total fatty acids, Focus@7
c225n3pc_F7	Fatty acids - percent 22:5n3 in total fatty acids, Focus@7
c226n3pc_F7	Fatty acids - percent 22:6n3 in total fatty acids, Focus@7
c203n9pc_F7	Fatty acids - percent 20:3n9 in total fatty acids, Focus@7
tga_f7	transglutaminase antibodies, Focus@7
ema_f7	IgA endomysial antibodies, Focus@7
gad_f7	Autoantibodies to GAD65, Focus@7
ia2_f7	Autoantibodies to IA2ic, Focus@7
iaa_f7	IAA screening assay, Focus@7
clAA_f7	IAA assay with competition, Focus@7
combгдаia2_f7	combined GADA/IA2 screening assay, Focus@7
AMHa_F7	AMH +TopStd ng/ml, Focus@ 7
AMHb_F7	AMH -TopStd ng/ml, Focus@ 7

Variable	Label
IGF2_F7	IGF2, F7
PTH_F7	Parathyroid hormone, F7
calcium_F7	Calcium, F7
Adjcalcium_F7	Adjusted calcium, F7
Phosphate_F7	Phosphate, F7
Albumin_F7	Albumin, F7
Protein_F7	Protein, F7
Alkphos_F7	Alkaline Phosphatase 2, F7
Vitdd2_F7	Vitamin D (25(OHD2)), F7
vitdd2i_F7	Vitamin D (25(OHD2)) indicator <1.25, F7
vitdd3_F7	Vitamin D (25(OHD3)), F7
vitdtot_F7	Total Vitamin D, F7
FT3_F7	Free Triiodothyronine (FT3) pmol/L, F7
FT4_F7	Free Thyroxine (FT4) pmol/L, F7
TSH_F7	Thyroid Stimulating Hormone (TSH) mU/L, F7
Thyroid_Batch_F7	Batch details for F7 thyroid data (FT3, FT4 & TSH): F7
folate_F7	Folate nmol/L, Focus@7
cobalamin_F7	Cobalamin (B12) pmol/L, Focus@7
hcy_F7	Homocysteine µmol/L, Focus@7
meth_F7	Methionine µmol/L, Focus@7
cystath_F7	Cystathionine nmol/L, Focus@7
cysteine_F7	Cysteine µmol/L, Focus@7
glut_F7	Glutathione µmol/L, Focus@7
SAM_F7	S-Adenosyl Methionine (SAM) nmol/L, Focus@7
SAH_F7	S-Adenosyl Homocysteine (SAH)nmol/L, Focus@7
SAMSAHRatio_F7	SAM/SAH Ratio, Focus@7
Folate_Batch_F7	Batch details for F7 folate and related data: Focus@7
additive_F7	blood sample additive used, Focus@7
sam_code_F7	sample code, Focus@7
sample_type_F7	sample type, Focus@7
ebv_od_F7	Epstein-Barr virus - raw optical density units, Focus@7
ebv_std_F7	Epstein-Barr virus - ratio to standard, Focus@7
ebv_std_z_F7	Epstein-Barr virus - ratio to standard z-score, Focus@7
cmv_od_F7	cytomegalovirus - raw optical density units, Focus@7
cmv_std_F7	cytomegalovirus - ratio to standard, Focus@7
cmv_std_z_F7	cytomegalovirus - ratio to standard z-score, Focus@7
toxod_F7	toxoplasma gondii - raw optical density units, Focus@7
toxod_std_F7	toxoplasma gondii - ratio to standard, Focus@7
toxod_std_z_F7	toxoplasma gondii - ratio to standard z-score, Focus@7
sac_cerev_od_F7	saccharomyces cerevisiae - raw optical density units, Focus@7
sac_cerev_std_F7	saccharomyces cerevisiae - ratio to standard, Focus@7
sac_cerev_std_z_F7	saccharomyces cerevisiae - ratio to standard z-score, Focus@7

Variable	Label
h1n1_od_F7	influenza virus subtype H1N1 - raw optical density units, Focus@7
h1n1_std_F7	influenza virus subtype H1N1 - ratio to standard, Focus@7
h1n1_std_z_F7	influenza virus subtype H1N1 - ratio to standard z-score, Focus@7
h3n2_od_F7	influenza virus subtype H3N2 - raw optical density units, Focus@7
h3n2_std_F7	influenza virus subtype H3N2 - ratio to standard, Focus@7
h3n2_std_z_F7	influenza virus subtype H3N2 - ratio to standard z-score, Focus@7
hsv1_od_F7	herpes simplex virus 1 - raw optical density units, Focus@7
hsv1_std_F7	herpes simplex virus 1 - ratio to standard, Focus@7
hsv1_std_z_F7	herpes simplex virus 1 - ratio to standard z-score, Focus@7
measles_od_F7	measles virus - raw optical density units, Focus@7
measles_std_F7	measles virus - ratio to standard, Focus@7
measles_std_z_F7	measles virus - ratio to standard z-score, Focus@7
casein_alpha_od_F7	alpha-casein protein - raw optical density units, Focus@7
casein_alpha_std_F7	alpha-casein protein - ratio to standard, Focus@7
casein_alpha_std_z_F7	alpha-casein protein - ratio to standard z-score, Focus@7
casein_beta_od_F7	beta-casein protein - raw optical density units, Focus@7
casein_beta_std_F7	beta-casein protein - ratio to standard, Focus@7
casein_beta_std_z_F7	beta-casein protein - ratio to standard z-score, Focus@7
tv_od_F7	Theiler's virus - raw optical density units, Focus@7
tv_std_F7	Theiler's virus - ratio to standard, Focus@7
tv_std_z_F7	Theiler's virus - ratio to standard z-score, normalized per plate, Focus@7
sag1_od_F7	SAG1 protein domain - raw optical density units, Focus@7
sag1_std_F7	SAG1 protein domain - ratio to standard, Focus@7
sag1_std_z_F7	SAG1 protein domain - ratio to standard z-score, Focus@7
fhv_od_F7	feline herpesvirus - raw optical density units, Focus@7
fhv_std_F7	feline herpesvirus - ratio to standard, Focus@7
fhv_std_z_F7	feline herpesvirus - ratio to standard z-score, Focus@7
hpylori_od_F7	helicobacter pylori - raw optical density units, Focus@7
hpylori_iu_F7	helicobacter pylori - international units, Focus@7
hpylori_std_z_F7	helicobacter pylori - ratio to standard z-score, Focus@7
additive_Prelim_F7	blood sample additive used, Prelim, Focus@7
sam_code_Prelim_F7	sample code, Prelim, Focus@7
cmv_od_Prelim_F7	cytomegalovirus - raw optical density units, Prelim, Focus@7
cmv_std_Prelim_F7	cytomegalovirus - ratio to standard, Prelim, Focus@7
cmv_std_z_Prelim_F7	cytomegalovirus - ratio to standard z-score, Prelim, Focus@7
toxod_od_Prelim_F7	toxoplasma gondii - raw optical density units, Prelim, Focus@7
toxod_std_Prelim_F7	toxoplasma gondii - ratio to standard, Prelim, Focus@7
toxod_std_z_Prelim_F7	toxoplasma gondii - ratio to standard z-score, Prelim, Focus@7
hsv1_od_Prelim_F7	herpes simplex virus 1 - raw optical density units, Prelim, Focus@7
hsv1_std_Prelim_F7	herpes simplex virus 1 - ratio to standard, Prelim, Focus@7
hsv1_std_z_Prelim_F7	herpes simplex virus 1 - ratio to standard z-score, Prelim, Focus@7
measles_od_Prelim_F7	measles virus - raw optical density units, Prelim, Focus@7

Variable	Label
measles_std_Prelim_F7	measles virus - ratio to standard, Prelim, Focus@7
measles_std_z_Prelim_F7	measles virus - ratio to standard z-score, Prelim, Focus@7
casein_od_Prelim_F7	casein protein - raw optical density units, Prelim, Focus@7
casein_std_z_Prelim_F7	casein protein - ratio to standard z-score, Prelim, Focus@7
hb_F9	Haemoglobin, Focus@9
CHOL_F9	Cholesterol mmol/l, Focus @9
trig_f9	Triglycerides mmol/l, Focus@9
HDL_f9	HDL mmol/l, Focus@9
LDL_f9	LDL mmol/l, Focus@9
VLDL_f9	VLDL mmol/l, Focus@9
ApoAI_f9	Apolipoprotein AI mg/dl, Focus@9
ApoB_f9	Apolipoprotein B mg/dl, Focus@9
CRP_f9	C-Reactive protein mg/l, Focus@9
LEPTIN_f9	Leptin ng/ml, Focus@9
Adiponectin_f9	Adiponectinng/ml, Focus@9
IL6_f9	Interleukin 6 pg/ml, Focus@9
HBA1C_f9	HBA1C, Focus@9
AMHa_F9	AMH +TopStd ng/ml, Focus@ 9
AMHb_F9	AMH -TopStd ng/ml, Focus@ 9
IGFBP3_F9	IGFBP3, F9
IGF1_F9	IGF1, F9
IGF2_F9	IGF2, F9
PTH_F9	Parathyroid hormone, F9
calcium_F9	Calcium, F9
Adjcalcium_F9	Adjusted calcium, F9
Phospate_F9	Phosphate, F9
Albumin_F9	Albumin, F9
Protein_F9	Protein, F9
Glob_F9	Globulin, F9
Alkphos_F9	Alkaline Phophatase 2, F9
Vitdd2_F9	Vitamin D (25(OHD2)), F9
vitdd2i_F9	Vitamin D (25(OHD2)) indicator <1.25, F9
vitdd3_F9	Vitamin D (25(OHD3)), F9
vitdtot_F9	Total Vitamin D, F9
ALT_F9	Alanine aminotranferase (ALT) U/L, Focus@9
AST_F9	Aspartate aminotranferase (AST) U/L, Focus@9
GGT_F9	Gamma-Glutamyl Transpeptidase (GGT) U/L, Focus@9
insulin_F9	Insulin mU/L, Focus@9
hb_F11	Haemoglobin, Focus11
AMHa_F11	AMH +TopStd ng/ml, Focus@11
AMHb_F11	AMH -TopStd ng/ml, Focus@11
IGFBP3_F11	IGFBP3, F11

Variable	Label
IGF1_F11	IGF1, F11
IGF2_F11	IGF2, F11
PTH_F11	Parathyroid hormone, F11
calcium_F11	Calcium, F11
Adjcalcium_F11	Adjusted calcium, F11
Phospate_F11	Phosphate, F11
Albumin_F11	Albumin, F11
Protein_F11	Protein, F11
Glob_F11	Globulin, F11
Alkphos_F11	Alkaline Phosphatase 2, F11
Vitdd2_F11	Vitamin D (25(OHD2)), F11
vitdd2i_F11	Vitamin D (25(OHD2)) indicator <1.25, F11
vitdd3_F11	Vitamin D (25(OHD3)), F11
vitdtot_F11	Total Vitamin D, F11
FT3_F11	Free Triiodothyronine (FT3) pmol/L, F11
FT4_F11	Free Thyroxine (FT4) pmol/L, F11
TSH_F11	Thyroid Stimulating Hormone (TSH) mU/L, F11
additive_F11	blood sample additive used, Focus@11
sam_code_F11	sample code, Focus@11
sample_type_F11	sample type, Focus@11
ebv_od_F11	Epstein-Barr virus - raw optical density units, Focus@11
ebv_std_F11	Epstein-Barr virus - ratio to standard, Focus@11
ebv_std_z_F11	Epstein-Barr virus - ratio to standard z-score, Focus@11
cmv_od_F11	cytomegalovirus - raw optical density units, Focus@11
cmv_std_F11	cytomegalovirus - ratio to standard, Focus@11
cmv_std_z_F11	cytomegalovirus - ratio to standard z-score, Focus@11
toxod_F11	toxoplasma gondii - raw optical density units, Focus@11
toxod_std_F11	toxoplasma gondii - ratio to standard, Focus@11
toxod_std_z_F11	toxoplasma gondii - ratio to standard z-score, Focus@11
sac_cerev_od_F11	saccharomyces cerevisiae - raw optical density units, Focus@11
sac_cerev_std_F11	saccharomyces cerevisiae - ratio to standard, Focus@11
sac_cerev_std_z_F11	saccharomyces cerevisiae - ratio to standard z-score, Focus@11
h1n1_od_F11	influenza virus subtype H1N1 - raw optical density units, Focus@11
h1n1_std_F11	influenza virus subtype H1N1 - ratio to standard, Focus@11
h1n1_std_z_F11	influenza virus subtype H1N1 - ratio to standard z-score, Focus@11
h3n2_od_F11	influenza virus subtype H3N2 - raw optical density units, Focus@11
h3n2_std_F11	influenza virus subtype H3N2 - ratio to standard, Focus@11
h3n2_std_z_F11	influenza virus subtype H3N2 - ratio to standard z-score, Focus@11
hsv1_od_F11	herpes simplex virus 1 - raw optical density units, Focus@11
hsv1_std_F11	herpes simplex virus 1 - ratio to standard, Focus@11
hsv1_std_z_F11	herpes simplex virus 1 - ratio to standard z-score, Focus@11
measles_od_F11	measles virus - raw optical density units, Focus@11

Variable	Label
measles_std_F11	measles virus - ratio to standard, Focus@11
measles_std_z_F11	measles virus - ratio to standard z-score, Focus@11
casein_alpha_od_F11	alpha-casein protein - raw optical density units, Focus@11
casein_alpha_std_F11	alpha-casein protein - ratio to standard, Focus@11
casein_alpha_std_z_F11	alpha-casein protein - ratio to standard z-score, Focus@11
casein_beta_od_F11	beta-casein protein - raw optical density units, Focus@11
casein_beta_std_F11	beta-casein protein - ratio to standard, Focus@11
casein_beta_std_z_F11	beta-casein protein - ratio to standard z-score, Focus@11
tv_od_F11	Theiler's virus - raw optical density units, Focus@11
tv_std_F11	Theiler's virus - ratio to standard, Focus@11
tv_std_z_F11	Theiler's virus - ratio to standard z-score, normalized per plate, Focus@11
sag1_od_F11	SAG1 protein domain - raw optical density units, Focus@11
sag1_std_F11	SAG1 protein domain - ratio to standard, Focus@11
sag1_std_z_F11	SAG1 protein domain - ratio to standard z-score, Focus@11
fhv_od_F11	feline herpesvirus - raw optical density units, Focus@11
fhv_std_F11	feline herpesvirus - ratio to standard, Focus@11
fhv_std_z_F11	feline herpesvirus - ratio to standard z-score, Focus@11
hpylori_od_F11	helicobacter pylori - raw optical density units, Focus@11
hpylori_iu_F11	helicobacter pylori - international units, Focus@11
hpylori_std_z_F11	helicobacter pylori - ratio to standard z-score, Focus@11
additive_Prelim_F11	blood sample additive used, Prelim, Focus@11
sam_code_Prelim_F11	sample code, Prelim, Focus@11
cmv_od_Prelim_F11	cytomegalovirus - raw optical density units, Prelim, Focus@11
cmv_std_Prelim_F11	cytomegalovirus - ratio to standard, Prelim, Focus@11
cmv_std_z_Prelim_F11	cytomegalovirus - ratio to standard z-score, Prelim, Focus@11
toxod_od_Prelim_F11	toxoplasma gondii - raw optical density units, Prelim, Focus@11
toxod_std_Prelim_F11	toxoplasma gondii - ratio to standard, Prelim, Focus@11
toxod_std_z_Prelim_F11	toxoplasma gondii - ratio to standard z-score, Prelim, Focus@11
hsv1_od_Prelim_F11	herpes simplex virus 1 - raw optical density units, Prelim, Focus@11
hsv1_std_Prelim_F11	herpes simplex virus 1 - ratio to standard, Prelim, Focus@11
hsv1_std_z_Prelim_F11	herpes simplex virus 1 - ratio to standard z-score, Prelim, Focus@11
measles_od_Prelim_F11	measles virus - raw optical density units, Prelim, Focus@11
measles_std_Prelim_F11	measles virus - ratio to standard, Prelim, Focus@11
measles_std_z_Prelim_F11	measles virus - ratio to standard z-score, Prelim, Focus@11
casein_od_Prelim_F11	casein protein - raw optical density units, Prelim, Focus@11
casein_std_z_Prelim_F11	casein protein - ratio to standard z-score, Prelim, Focus@11
Hb_TF2	Haemoglobin, TF2
AMHa_TF2	AMH +TopStd ng/ml, TF2
IGFBP3_TF2	IGFBP3, TF2
IGF1_TF2	IGF1, TF2
IGF2_TF2	IGF2, TF2
Hb_TF3	Haemoglobin, TF3

Variable	Label
Cotinine_TF3	Cotinine ng/ml, TF3
chol_TF3	Cholesterol mmol/l, TF3
trig_TF3	Triglycerides mmol/l, TF3
hdl_TF3	HDL mmol/l, TF3
ldl_TF3	LDL mmol/l, TF3
vldl_TF3	VLDL mmol/l, TF3
glucose_TF3	Glucose mmol/l, TF3
insulin_TF3	Insulin mu/l, TF3
crp_TF3	C-reactive Protein mg/l, TF3
AMH_TF3	AMH ng/ml, TF3
CTX_TF3	CTX ng/ml, TF3
Adiponectin_TF3	Adiponectin (total) ng/ml, TF3
Adipo_HMW_TF3	Adiponectin (high molecular weight) ng/ml, TF3
Testosterone_TF3	Testosterone nmol/l, TF3
SHBG_TF3	Sex hormone-binding globulin nmol/l, TF3
ALT_TF3	Alanine aminotranferase (ALT) U/L, TF3
AST_TF3	Aspartate aminotranferase (AST) U/L, TF3
GGT_TF3	Gamma-Glutamyl Transpeptidase (GGT) U/L, TF3
FT3_TF3	Free Triiodothyronine (FT3) pmol/L, TF3
FT4_TF3	Free Thyroxine (FT4) pmol/L, TF3
TSH_TF3	Thyroid Stimulating Hormone (TSH) mU/L, TF3
Thyroid_Batch_TF3	Batch details for TF3 thyroid data (FT3, FT4 & TSH): TF3
additive_TF3	blood sample additive used, TF3
sam_code_TF3	sample code, TF3
sample_type_TF3	sample type, TF3
ebv_od_TF3	Epstein-Barr virus - raw optical density units, TF3
ebv_std_TF3	Epstein-Barr virus - ratio to standard, TF3
ebv_std_z_TF3	Epstein-Barr virus - ratio to standard z-score, TF3
cmv_od_TF3	cytomegalovirus - raw optical density units, TF3
cmv_std_TF3	cytomegalovirus - ratio to standard, TF3
cmv_std_z_TF3	cytomegalovirus - ratio to standard z-score, TF3
toxod_od_TF3	toxoplasma gondii - raw optical density units, TF3
toxod_std_TF3	toxoplasma gondii - ratio to standard, TF3
toxod_std_z_TF3	toxoplasma gondii - ratio to standard z-score, TF3
sac_cerev_od_TF3	saccharomyces cerevisiae - raw optical density units, TF3
sac_cerev_std_TF3	saccharomyces cerevisiae - ratio to standard, TF3
sac_cerev_std_z_TF3	saccharomyces cerevisiae - ratio to standard z-score, TF3
h1n1_od_TF3	influenza virus subtype H1N1 - raw optical density units, TF3
h1n1_std_TF3	influenza virus subtype H1N1 - ratio to standard, TF3
h1n1_std_z_TF3	influenza virus subtype H1N1 - ratio to standard z-score, TF3
h3n2_od_TF3	influenza virus subtype H3N2 - raw optical density units, TF3
h3n2_std_TF3	influenza virus subtype H3N2 - ratio to standard, TF3

Variable	Label
h3n2_std_z_TF3	influenza virus subtype H3N2 - ratio to standard z-score, TF3
hsv1_od_TF3	herpes simplex virus 1 - raw optical density units, TF3
hsv1_std_TF3	herpes simplex virus 1 - ratio to standard, TF3
hsv1_std_z_TF3	herpes simplex virus 1 - ratio to standard z-score, TF3
measles_od_TF3	measles virus - raw optical density units, TF3
measles_std_TF3	measles virus - ratio to standard, TF3
measles_std_z_TF3	measles virus - ratio to standard z-score, TF3
casein_alpha_od_TF3	alpha-casein protein - raw optical density units, TF3
casein_alpha_std_TF3	alpha-casein protein - ratio to standard, TF3
casein_alpha_std_z_TF3	alpha-casein protein - ratio to standard z-score, TF3
casein_beta_od_TF3	beta-casein protein - raw optical density units, TF3
casein_beta_std_TF3	beta-casein protein - ratio to standard, TF3
casein_beta_std_z_TF3	beta-casein protein - ratio to standard z-score, TF3
tv_od_TF3	Theiler's virus - raw optical density units, TF3
tv_std_TF3	Theiler's virus - ratio to standard, TF3
tv_std_z_TF3	Theiler's virus - ratio to standard z-score, normalized per plate, TF3
sag1_od_TF3	SAG1 protein domain - raw optical density units, TF3
sag1_std_TF3	SAG1 protein domain - ratio to standard, TF3
sag1_std_z_TF3	SAG1 protein domain - ratio to standard z-score, TF3
fhv_od_TF3	feline herpesvirus - raw optical density units, TF3
fhv_std_TF3	feline herpesvirus - ratio to standard, TF3
fhv_std_z_TF3	feline herpesvirus - ratio to standard z-score, TF3
hpylori_od_TF3	helicobacter pylori - raw optical density units, TF3
hpylori_iu_TF3	helicobacter pylori - international units, TF3
hpylori_std_z_TF3	helicobacter pylori - ratio to standard z-score, TF3
additive_Prelim_TF3	blood sample additive used, Prelim, TF3
sam_code_Prelim_TF3	sample code, Prelim, TF3
cmv_od_Prelim_TF3	cytomegalovirus - raw optical density units, Prelim, TF3
cmv_std_Prelim_TF3	cytomegalovirus - ratio to standard, Prelim, TF3
cmv_std_z_Prelim_TF3	cytomegalovirus - ratio to standard z-score, Prelim, TF3
toxod_od_Prelim_TF3	toxoplasma gondii - raw optical density units, Prelim, TF3
toxod_std_Prelim_TF3	toxoplasma gondii - ratio to standard, Prelim, TF3
toxod_std_z_Prelim_TF3	toxoplasma gondii - ratio to standard z-score, Prelim, TF3
hsv1_od_Prelim_TF3	herpes simplex virus 1 - raw optical density units, Prelim, TF3
hsv1_std_Prelim_TF3	herpes simplex virus 1 - ratio to standard, Prelim, TF3
hsv1_std_z_Prelim_TF3	herpes simplex virus 1 - ratio to standard z-score, Prelim, TF3
measles_od_Prelim_TF3	measles virus - raw optical density units, Prelim, TF3
measles_std_Prelim_TF3	measles virus - ratio to standard, Prelim, TF3
measles_std_z_Prelim_TF3	measles virus - ratio to standard z-score, Prelim, TF3
casein_od_Prelim_TF3	casein protein - raw optical density units, Prelim, TF3
casein_std_z_Prelim_TF3	casein protein - ratio to standard z-score, Prelim, TF3
Hb_TF4	Haemoglobin, TF4

Variable	Label
CHOL_TF4	Cholesterol mmol/l, TF4
TRIG_TF4	Triglycerides mmol/l, TF4
HDL_TF4	HDL mmol/l, TF4
LDL_TF4	LDL mmol/l, TF4
VLDL_TF4	VLDL mmol/l, TF4
glucose_TF4	Glucose mmol/l, TF4
insulin_TF4	Insulin mu/l, TF4
insulingp_TF4	Insulin pmol/l, TF4
CRP_TF4	C-reactive Protein mg/l, TF4
Apo_TF4	ApoA1 g/l, TF4
Bil_TF4	Bilirubin g/l, TF4
Hapt_TF4	Haptoglobin g/l, TF4
GGT_TF4	GGT U/l, TF4
ALT_TF4	ALT U/l, TF4
AST_TF4	AST U/l, TF4
cotinine_TF4_s1	Cotinine ng/ml (sample 1), TF4
cotinine_TF4_s2	Cotinine ng/ml (sample 2), TF4
cotinine_TF4_avg	DV: Cotinine ng/ml (average), TF4
WBC_F24	White blood cell count 10 ⁹ /L, Focus@24
RBC_F24	Red blood cell count 10 ¹² /L, Focus@24
HB_F24	Haemoglobin g/L, Focus@24
HCT_F24	Haematocrit/Packed cell volume L/L, Focus@24
MCV_F24	Mean cell volume fL, Focus@24
MCH_F24	Mean cell haemoglobin pg, Focus@24
MCHC_F24	Mean cell haemoglobin concentration g/L, Focus@24
Platelets_F24	Platelet count 10 ⁹ /L, Focus@24
Neutrophils_F24	Neutrophils 10 ⁹ /L, Focus@24
Lymphocytes_F24	Lymphocytes 10 ⁹ /L, Focus@24
Monocytes_F24	Monocytes 10 ⁹ /L, Focus@24
Eosinophils_F24	Eosinophils 10 ⁹ /L, Focus@24
Basophils_F24	Basophils 10 ⁹ /L, Focus@24
Insulin_F24	Insulin uU/mL, Focus@24
Glucose_F24	Glucose mmol/L, Focus@24
Chol_F24	Cholesterol mmol/L, Focus@24
Trig_F24	Triglycerides mmol/L, Focus@24
HDL_F24	High-density lipoprotein (HLD) mmol/L, Focus@24
LDL_F24	Low-density lipoprotein (LDL) mmol/L, Focus@24
VLDL_F24	Very low-density lipoprotein (VLDL) mmol/L, Focus@24
CRP_F24	C-Reactive Protein mg/L, Focus@24
GGT_F24	Gamma-glutamyl transpeptidase (GGT) U/L, Focus@24
ALT_F24	Alanine aminotransferase (ALT) U/L, Focus@24
AST_F24	Aspartate aminotransferase (AST) U/L, Focus@24

Variable	Label
P3NP_F24	Procollagen-3 N-Terminal Peptide (P3NP) ug/L, Focus@24
P3NP_Batch_F24	Batch number for P3NP test, Focus@24
HA_F24	Hyaluronic Acid (HA) ug/L, Focus@24
HA_Assay_F24	Assay number for hyaluronic acid test, Focus@24
HA_retest_F24	Hyaluronic acid was retested (due to implausible result), Focus@24
yp_aries	ARIES methylation data is available for this person
yp_GWAS_1kg	1000Genome imputation data is available for this person
yp_GWAS_hrc	HRC imputation data is available for this person
yp_uk10k	UK10K sequence/imputation genotype data is available for this person
yp_bryois	Gene expression data (from Bryois publication) is available for this person