

Analytical Biochemistry Shared Resource
Rates FY15-16

Analyte	Lab Units Required	1 LU costs:		300 or more	
		Cost Per Assay (Unsubsidized)	Cost Per Assay (Subsidized)	Cost Per Assay (Unsubsidized)	Cost Per Assay (Subsidized)
LPM* in plasma by HPLC/PDA	10.00	65.08	55.78	59.17	50.67
LPM* in plasma by HPLC/PDA including Q10ox	11.00	71.59	61.36	65.08	55.73
LPM* in plasma by HPLC/PDA including Q10ox+Q10red	12.50	81.35	69.73	73.96	63.33
Total Q10 from plasma by HPLC/ECD/PDA	5.00	32.54	27.89	29.58	25.33
Total Q10 from plasma LPM extract by HPLC/ECD/PDA	3.00	19.52	16.73	17.75	15.20
Q10ox+Q10red from plasma by HPLC/ECD/PDA	8.00	52.07	44.63	47.33	40.53
LPM* in food by HPLC/PDA	16.00	104.13	89.25	94.67	81.07
Tocopherols in plasma by NP-HPLC	7.50	48.81	41.84	44.37	38.00
Tocopherols in plasma by NP-HPLC with LPM*	15.00	97.62	83.67	88.75	76.00
Tocopherols from foods by NP-HPLC	7.50	48.81	41.84	44.37	38.00
E-vitamins from plasma by NP-HPLC	10.00	65.08	55.78	59.17	50.67
E-vitamins from food by NP-HPLC	10.00	65.08	55.78	59.17	50.67
Caffeine in urine	9.80	63.78	54.67	57.95	49.65
Homocysteine in plasma	7.00	45.56	39.05	41.42	35.47
1-hydroxy-pyrene by HPLC/fluorescence	6.50	42.30	36.26	38.46	32.93
DNA by HPLC	4.00	26.03	22.31	23.67	20.27
Vitamin C in food by HPLC/PDA	2.50	16.27	13.95	14.79	12.67
Vitamin C in plasma by HPLC/ECD	2.50	16.27	13.95	14.79	12.67
Vitamin C in plasma by absorbance (manual)	2.50	16.27	13.95	14.79	12.67
Vitamin D in plasma by LC/MS	4.00	26.03	22.31	23.67	20.27
8-hydroxy-deoxyguanosine by HPLC/ECD	10.00	65.08	55.78	59.17	50.67
Total cholesterol in plasma (manual)	1.00	6.51	5.58	5.92	5.07
HDL-cholesterol in plasma (manual)	1.50	9.76	8.37	8.87	7.60
Triglyceride in plasma (manual)	1.00	6.51	5.58	5.92	5.07
Total Phenol levels in food/urine (manual)	2.50	16.27	13.95	14.79	12.67
Total Phenol levels in plasma (manual)	3.00	19.52	16.73	17.75	15.20
Ammonia in urine (manual)	2.00	13.02	11.16	11.83	10.13
Urea in urine (manual)	2.00	13.02	11.16	11.83	10.13
Creatinine in urine (manual)	2.00	13.02	11.16	11.83	10.13
Creatinine in urine by AA**	1.10	7.16	6.14	N/A	N/A
Total Phenols in urine by AA**	1.10	7.16	6.14	N/A	N/A
CRP in plasma by AA**	1.44	9.37	8.03	N/A	N/A
Calcium in plasma by AA**	1.15	7.47	6.40	N/A	N/A
Glucose in plasma by AA**	1.15	7.47	6.40	N/A	N/A
Total cholesterol in plasma by AA**	1.14	7.41	6.35	N/A	N/A
HDL-cholesterol in plasma by AA**	1.19	7.75	6.64	N/A	N/A
Triglyceride in plasma by AA**	1.17	7.61	6.52	N/A	N/A
Lipid panel (Chol, HDL-C, TG) in plasma by AA**	2.87	18.67	16.00	N/A	N/A
Apo-A1 in plasma by AA**	1.27	8.24	7.06	N/A	N/A
Apo-B in plasma by AA**	1.25	8.14	6.96	N/A	N/A
Apo-E in plasma by AA**	1.25	8.12	6.96	N/A	N/A
Haptoglobin in plasma by AA**	1.19	7.73	6.63	N/A	N/A
Red blood cell preparation	2.00	13.02	11.16	0.00	0.00
*Lipid-Phase Micronutrients (12 carotenoids, 2 retinoids, 3 tocopherols)					
**Auto-Analyzer for clinical chemistry (Roche Cobas Mira Plus)					
DNA methylation from WBC extracts (5Me-dC, dC, dG) by LC	6.00	39.05	33.47	35.50	30.40
Cholin, betaine from plasma by LC/MS	6.00	39.05	33.47	35.50	30.40
Cysteine, homocysteine from plasma by LC/MS	6.00	39.05	33.47	35.50	30.40
Folate, 5MeTHF from plasma by LC/MS	10.00	65.08	55.78	59.17	50.67
4-Pyridoxic acid+Pyridoxal phosphate from plasma by LC/MS	10.00	65.08	55.78	59.17	50.67
Methylmalonic acid from plasma by LC/MS	6.00	39.05	33.47	35.50	30.40
Free Fatty acids from plasma by LC/MS	9.00	58.57	50.20	53.25	45.60
Fatty acids from red blood cell membranes by LC/MS	12.50	81.35	69.73	73.96	63.33
Fatty acids from dry foods by LC/MS	15.00	97.62	83.67	88.75	76.00
Phthalates from urine by LC/MS: see 'Phenols'	9.00	58.57	50.20	53.25	45.60
POLYPHENOL by LCMS (isoflavonoids, flavonoids, lignans, anthocyanins, or other agents):					
Extraction & instrument set-up for food or urine					
HPLC/PDA	2.00	13.02	11.16	11.83	10.13
HPLC/PDA	2.50	16.27	13.95	14.79	12.67
+ each analyte	1.20	7.81	6.69	7.10	6.08
LC/MS ion trap (+50% vs. PDA)	3.00	19.52	16.73	17.75	15.20
+ each analyte	1.80	11.71	10.04	10.65	9.12
LC/MS triple quadrupole (+25% vs. ion trap)	3.75	24.41	20.92	22.19	19.00
+ each analyte	2.25	14.64	12.55	13.31	11.40
HPLC/ECD (20% vs. PDA)	2.40	15.62	13.39	14.20	12.16
+ each analyte	1.44	9.37	8.03	8.52	7.30
Extraction & instrument set-up for plasma or milk (+50% vs. urine)					
HPLC/PDA	3.00	19.52	16.73	17.75	15.20
+ each analyte	1.80	11.71	10.04	10.65	9.12
LC/MS ion trap (+50% vs. PDA)	4.50	29.29	25.10	26.62	22.80
+ each analyte	2.70	17.57	15.06	15.97	13.68
LC/MS triple quadrupole (+25% vs. ion trap)	5.63	36.64	31.41	33.31	28.53
+ each analyte	3.38	22.00	18.85	20.00	17.13
HPLC/ECD (+20% vs. PDA)	3.60	23.43	20.08	21.30	18.24
+ each analyte	2.16	14.06	12.05	12.78	10.94
Extraction & instrument set-up for cells & tissue					
HPLC/PDA	3.75	24.41	20.92	22.19	19.00
+ each analyte	2.25	14.64	12.55	13.31	11.40
LC/MS ion trap (+50% vs. PDA)	5.63	36.64	31.41	33.31	28.53
+ each analyte	3.38	22.00	18.85	20.00	17.13
LC/MS triple quadrupole (+25% vs. ion trap)	7.03	45.75	39.22	41.59	35.62
+ each analyte	4.22	27.47	23.54	24.97	21.38
HPLC/ECD (+20% vs. PDA)	4.50	29.29	25.10	26.62	22.80
+ each analyte	2.70	17.57	15.06	15.97	13.68
STEROID group (+25% vs. polyphenols)					
Extraction & instrument set-up for urine					
LC/MS ion trap	3.75	24.41	20.92	22.19	19.00
+ each analyte	2.25	14.64	12.55	13.31	11.40
LC/MS triple quadrupole (+25% vs. ion trap)	4.69	30.52	26.16	27.75	23.76
+ each analyte	2.81	18.29	15.68	16.63	14.24
Extraction & instrument set-up for plasma (+50% vs. urine)					
LC/MS	5.63	36.64	31.41	33.31	28.53
+ each analyte	3.38	22.00	18.85	20.00	17.13
LC/MS triple quadrupole (+25%)	7.03	45.75	39.22	41.59	35.62
+ each analyte	4.22	27.47	23.54	24.97	21.38
Note: if derivatization needed cost will increase by additional 10%					
Immunoassay group					
Basic fee for manual ELISA	2.00	13.02	11.16	11.83	10.13
+ kit surcharge (\$3-20 per sample)					
Basic fee for Luminex ELISA	4.00	26.03	22.31	23.67	20.27
+ kit surcharge (\$3-80 per sample)					
Other Rates					
	Total Costs	Available Hours/Year	Hourly Cost (Unsubsidized)	Hourly Cost (Subsidized)	
Consultation					
Technical (L. Custer - 100% FTE)	75,561	1,608.0	\$48.49	\$41.53	
Professional (A. Franke - 90% FTE)	158,331	1,447.2	\$112.91	\$96.70	
Laboratory Experiments	\$850,309	1,608.0	\$528.80	\$452.89	
HPLC use without personnel time	23,130	1,608.0	\$14.38	\$12.32	
LC/MS use without personnel time	45,200	1,608.0	\$28.11	\$24.07	