

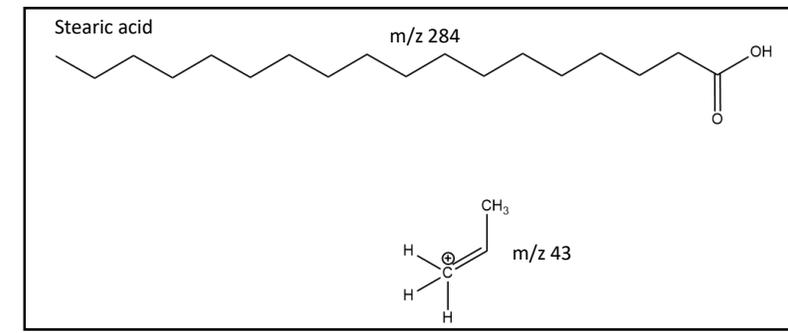
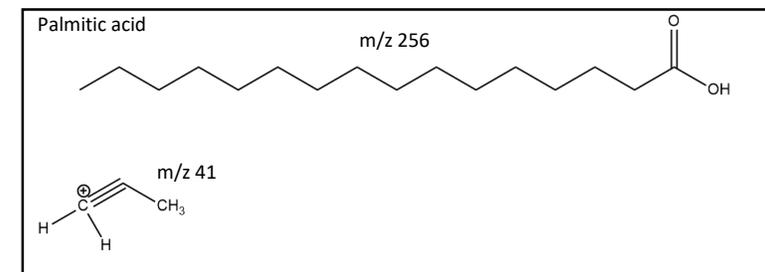
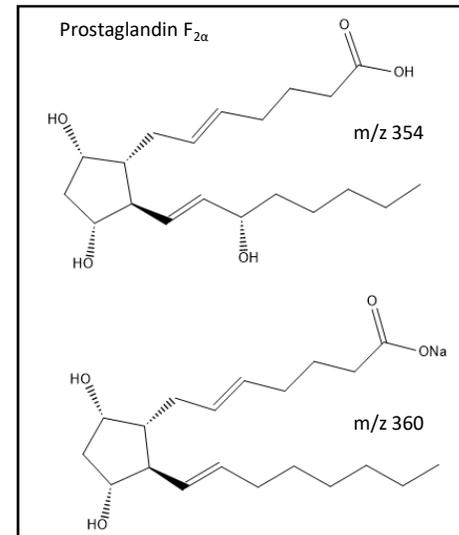
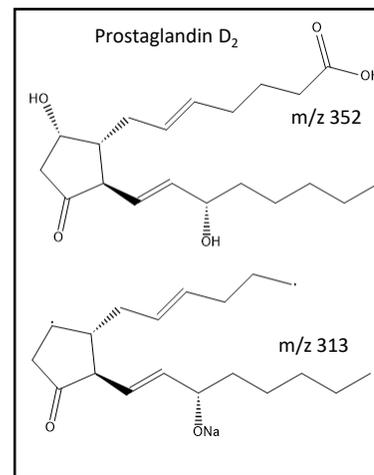
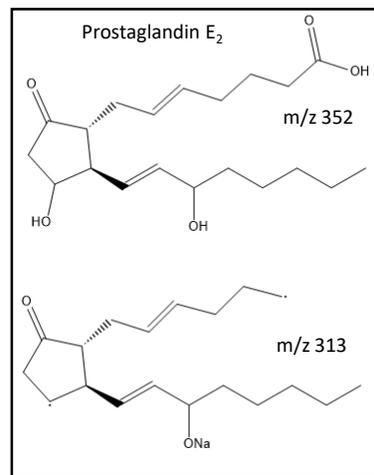
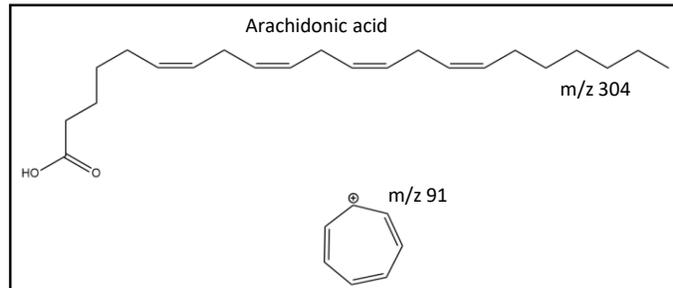
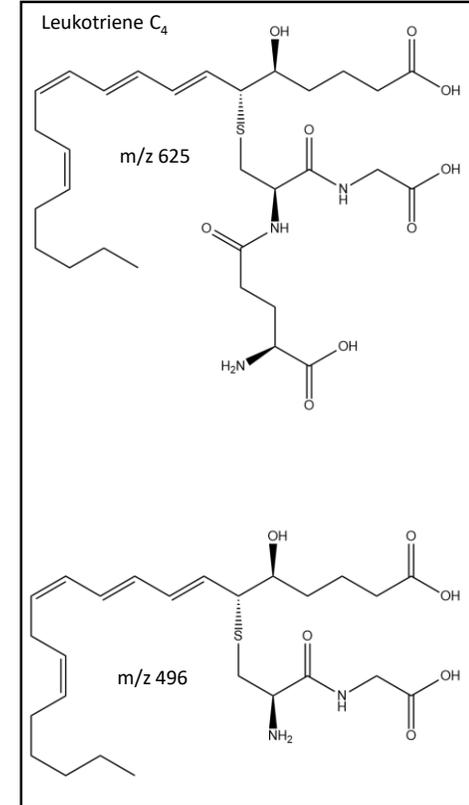
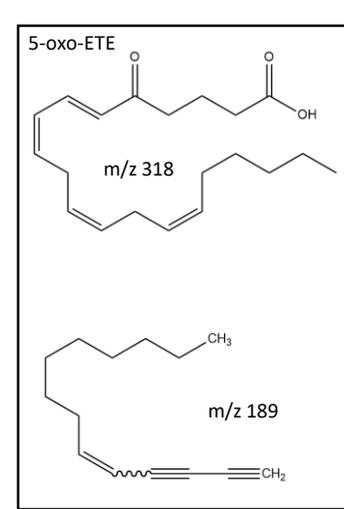
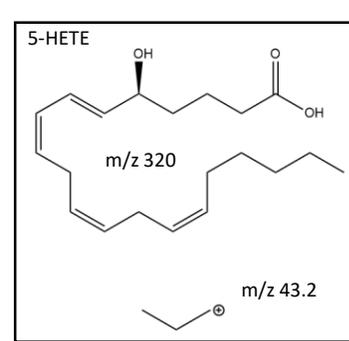
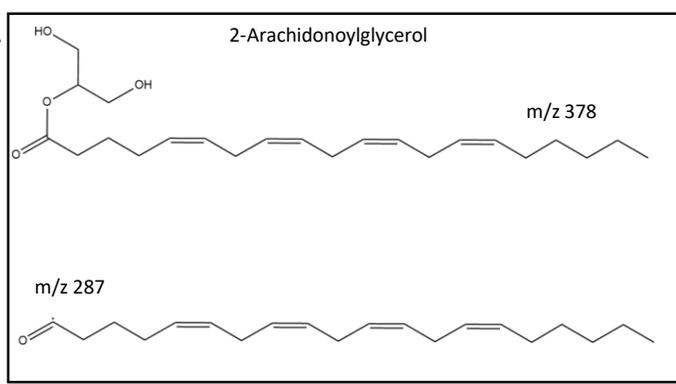
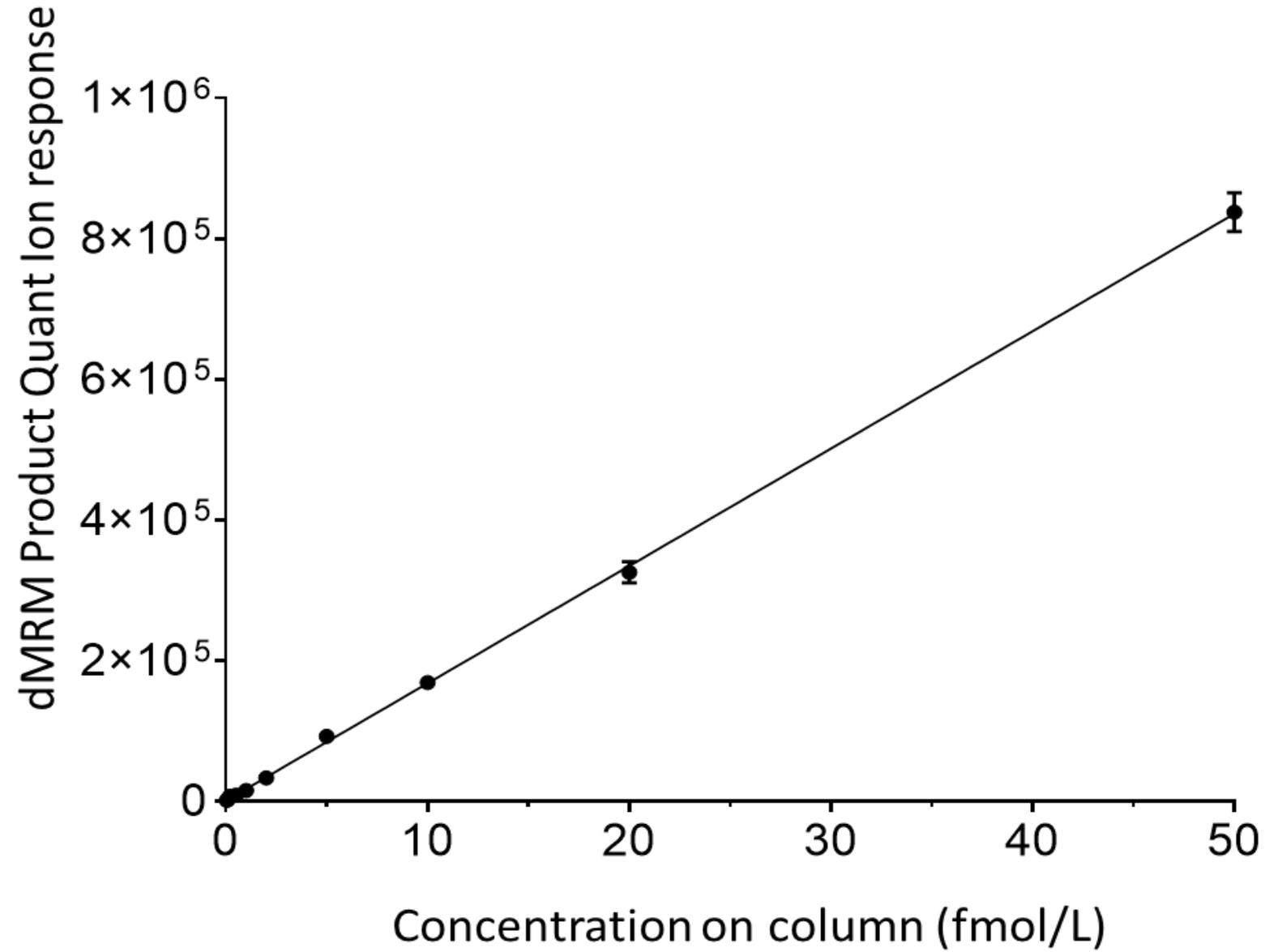
**Figure S1**

Figure S2

PGF<sub>2α</sub>  
Response curve of Product Quant Ion



**Table S1a**

	Extraction 1 (MeOH/H <sub>2</sub> O+MTBE)				Extraction 2 (MeOH+MTBE/CHCl <sub>3</sub> +MeOH/H <sub>2</sub> O)				Extraction 3 (ACN)			
	MEAN	SD	SEM	CV	MEAN	SD	SEM	CV	MEAN	SD	SEM	CV
2-AG	7.2E+02	1.5E+02	1.5E+02	20.6	1.5E+03	4.5E+02	4.5E+02	29.7	1.8E+03	1.2E+02	1.2E+02	6.5
5-HETE	9.8E+03	1.6E+03	1.6E+03	16.5	1.2E+04	1.4E+03	1.4E+03	11.4	4.6E+03	3.8E+02	3.8E+02	8.4
5-Oxo-EETE	8.3E+03	7.4E+02	7.4E+02	8.9	9.6E+03	3.2E+02	3.2E+02	3.3	8.9E+03	8.3E+02	8.3E+02	9.4
AA	1.2E+07	1.5E+05	3.3E+05	1.1	1.2E+07	1.5E+05	1.5E+05	1.2	1.2E+07	8.5E+04	8.5E+04	0.7
LTC4	1.3E+07	3.3E+05	3.3E+05	2.7	1.3E+07	3.5E+05	3.5E+05	2.7	1.3E+07	3.3E+05	3.3E+05	2.5
PA	3.5E+04	4.0E+03	4.0E+03	11.5	4.0E+04	1.1E+04	1.1E+04	27.8	3.7E+03	6.1E+02	6.1E+02	16.4
PGD2/E2	1.1E+03	5.7E+01	5.7E+01	5.2	8.9E+02	2.4E+02	2.4E+02	27.1	1.7E+02	7.2E+01	7.2E+01	41.9
PGF2 $\alpha$	2.2E+06	6.7E+05	6.7E+05	30.6	3.0E+06	5.7E+05	5.7E+05	19.2	3.2E+05	3.5E+04	3.5E+04	10.9
SA	3.8E+05	2.7E+05	2.7E+05	72.8	6.6E+05	2.4E+05	2.4E+05	37.2	4.0E+04	2.3E+03	2.3E+03	5.7

**Table S1b**

	Extraction 1 (MeOH/H <sub>2</sub> O+MTBE)				Extraction 2 (MeOH+MTBE/CHCl <sub>3</sub> +MeOH/H <sub>2</sub> O)				Extraction 3 (ACN)			
	MEAN	SD	SEM	CV	MEAN	SD	SEM	CV	MEAN	SD	SEM	CV
2-AG	1.0E+03	4.4E+02	1.5E+02	43.7	2.1E+02	1.8E+02	6.1E+01	86.9	5.0E+02	1.3E+02	4.5E+01	26.9
5-HETE	1.1E+03	6.9E+02	2.3E+02	62.0	2.9E+03	7.7E+02	2.6E+02	26.2	1.8E+03	9.0E+02	3.0E+02	50.4
5-Oxo-EETE	6.6E+03	7.6E+02	2.5E+02	11.4	1.2E+04	2.5E+03	8.5E+02	20.8	8.4E+03	5.9E+02	2.0E+02	7.0
AA	2.8E+05	2.8E+05	9.3E+04	101.1	3.7E+05	2.5E+05	8.2E+04	66.3	5.0E+04	3.1E+04	1.0E+04	62.1
LTC4	1.4E+07	4.2E+06	1.4E+06	29.6	1.3E+07	4.3E+06	1.4E+06	33.4	3.8E+06	1.0E+05	3.4E+04	2.7
PA	2.5E+04	1.4E+03	4.6E+02	5.5	2.4E+04	2.0E+04	6.6E+03	83.3	3.5E+04	8.4E+03	2.8E+03	23.8
PGD2/E2	9.6E+02	1.7E+02	5.8E+01	18.1	7.6E+02	4.3E+02	1.4E+02	56.4	1.2E+03	3.1E+02	103.9	25.4
PGF2 $\alpha$	2.6E+06	2.0E+05	6.6E+04	7.5	2.2E+06	1.3E+06	4.3E+05	59.0	3.2E+06	5.5E+05	1.8E+05	16.9
SA	3.7E+05	3.9E+04	1.3E+04	10.6	3.4E+05	2.9E+05	9.5E+04	83.9	4.9E+05	1.2E+05	3.9E+04	24.1

**Table S2**

<b>Matrix RF</b>	<b>AA</b>	<b>2-AG</b>	<b>PA</b>	<b>PGF<sub>2α</sub></b>	<b>SA</b>	<b>5-HETE</b>	<b>LTC<sub>4</sub></b>
<b>Cells</b>	28.97	0.34	40.06	3.95	5.51	1.11	6.17
<b>Cell supernatants</b>	1.25	0.93	0.07	0.09	0.11	0.58	4.81

Table S3a

	AA	2-AG	PA	PGF <sub>2<math>\alpha</math></sub>	SA	5-HETE	LTC <sub>4</sub>
Concentration unit	nmol/L	pmol/L	$\mu$ mol/L	pmol/L	nmol/L	pmol/L	$\mu$ mol/L
NT Biological rep 1 Technical rep 1	1.23	109.19	11.59	349.62	0.71	30.70	74.65
NT Biological rep 1 Technical rep 2	1.29	90.18	7.31	271.27	0.44	24.47	72.31
NT Biological rep 1 Technical rep 3	1.40	70.92	10.79	314.60	0.55	27.13	75.09
NT Biological rep 2 Technical rep 1	0.93	59.46		544.90	1.04	39.84	75.04
NT Biological rep 2 Technical rep 2	1.10	59.99		403.42	0.68	29.95	76.65
NT Biological rep 2 Technical rep 3	1.02	68.62		448.05	0.84	30.32	75.37
NT Biological rep 3 Technical rep 1	0.89	57.50	9.96	199.06	0.19	18.62	71.97
NT Biological rep 3 Technical rep 2	1.00	44.20	6.80	228.00	0.25	18.71	72.36
NT Biological rep 3 Technical rep 3	0.90	67.47	7.03	276.50	0.31	21.93	73.64
+IFN $\alpha$ Biological rep 1 Technical rep 1	0.96	50.65	15.43	434.26	0.58	32.53	67.80
+IFN $\alpha$ Biological rep 1 Technical rep 2	0.99	51.45	10.67	357.88	0.36	27.19	68.80
+IFN $\alpha$ Biological rep 1 Technical rep 3	0.80	62.60	12.00	338.66	0.34	24.46	74.41
+IFN $\alpha$ Biological rep 2 Technical rep 1	0.91	59.73	13.26	482.49	0.65	38.07	72.26
+IFN $\alpha$ Biological rep 2 Technical rep 2	0.84	52.03	12.65	433.06	0.52	31.11	72.10
+IFN $\alpha$ Biological rep 2 Technical rep 3	0.81	56.56	8.35	325.62	0.33	20.33	78.70
+IFN $\alpha$ Biological rep 3 Technical rep 1	0.84	62.32	8.76	369.96	0.46	23.36	73.20
+IFN $\alpha$ Biological rep 3 Technical rep 2	0.82	48.96	8.77	461.09	0.58	26.19	72.64
+IFN $\alpha$ Biological rep 3 Technical rep 3	0.81	49.60	9.78	369.87	0.38	18.86	71.42

**Table S3b**

Metabolite	NT			IFN $\alpha$			p-value
	Mean	SD	N	Mean	SD	N	NT vs. IFN $\alpha$
Arachidonic acid	1.0844	0.1838	9	0.8644	0.0709	9	0.0041
2-Arachidonoylglycerol	69.7256	19.3156	9	54.8778	5.5000	9	0.0414
Palmitic acid	8.9133	2.1150	6	11.0744	2.4242	9	0.0993
Prostaglandin F <sub>2<math>\alpha</math></sub>	337.2689	111.5323	9	396.9878	56.5696	9	0.1712
Stearic acid	0.5567	0.2863	9	0.4667	0.1203	9	0.3974
5-HETE	26.8522	6.7930	9	26.9000	6.1346	9	0.9877
Leukotriene C <sub>4</sub>	74.1200	1.6301	9	72.3700	3.1546	9	0.1587

**Table S3c**

	<b>AA</b>	<b>2-AG</b>	<b>Palmitic acid</b>	<b>PGF<sub>2<math>\alpha</math></sub></b>	<b>Stearic acid</b>	<b>5-HETE</b>	<b>Leukotriene C<sub>4</sub></b>
NT mean	1.09	69.72	5.94	337.27	0.56	26.85	74.12
NT std.dev	0.16	14.63	0.98	95.98	0.24	5.57	1.24
NT CV (%)	14.88	20.98	16.56	28.46	43.91	20.76	1.67
+IFN $\alpha$ mean	0.87	54.88	11.07	396.99	0.47	26.90	72.37
+IFN $\alpha$ std.dev	0.04	1.01	1.49	15.20	0.03	2.99	1.64
+IFN $\alpha$ CV (%)	4.41	1.85	13.45	3.83	6.34	11.11	2.27

**Table S3d**

	<b>AA</b>	<b>2-AG</b>	<b>Palmitic acid</b>	<b>PGF<sub>2α</sub></b>	<b>Stearic acid</b>	<b>5-HETE</b>	<b>Leukotriene C<sub>4</sub></b>
NT Biological rep 1 mean	1.31	90.09	9.90	311.83	0.57	27.43	74.01
NT Biological rep 1 std.dev	0.07	15.62	1.86	32.04	0.11	2.55	1.22
NT Biological rep 1 CV (%)	5.46	17.34	18.78	10.28	19.28	9.30	1.65
NT Biological rep 2 mean	1.01	62.69		465.46	0.85	33.37	75.69
NT Biological rep 2 std.dev	0.07	4.20		59.06	0.15	4.58	0.69
NT Biological rep 2 CV (%)	6.81	6.70		12.69	17.43	13.72	0.91
NT Biological rep 3 mean	0.93	56.39	7.93	234.52	0.25	19.75	72.66
NT Biological rep 3 std.dev	0.05	9.53	1.44	31.95	0.05	1.54	0.71
NT Biological rep 3 CV (%)	5.07	16.91	18.18	13.62	19.74	7.81	0.98
+IFNα Biological rep 1 mean	0.92	54.90	12.70	376.94	0.43	28.06	70.33
+IFNα Biological rep 1 std.dev	0.08	5.46	2.00	41.29	0.11	3.35	2.91
+IFNα Biological rep 1 CV (%)	8.92	9.94	15.77	10.95	25.27	11.93	4.14
+IFNα Biological rep 2 mean	0.85	56.11	11.42	413.72	0.50	29.84	74.35
+IFNα Biological rep 2 std.dev	0.04	3.16	2.19	65.49	0.13	7.30	3.07
+IFNα Biological rep 2 CV (%)	4.87	5.63	19.15	15.83	26.60	24.45	4.14
+IFNα Biological rep 3 mean	0.83	53.63	9.10	400.31	0.47	22.80	72.42
+IFNα Biological rep 3 std.dev	0.01	6.15	0.48	42.98	0.08	3.02	0.74
+IFNα Biological rep 3 CV (%)	1.32	11.48	5.25	10.74	16.64	13.24	1.03

Table S4a

	AA	2-AG	PA	PGF <sub>2<math>\alpha</math></sub>	SA	5-HETE	LTC <sub>4</sub>
Concentration unit	pmol/L	fmol/L	pmol/L	pmol/L	pmol/L	pmol/L	pmol/L
NT Biological rep 1 Technical rep 1	44.02	3.37	47.35	1.93	0.79	0.75	342.14
NT Biological rep 1 Technical rep 2	47.50	1.38	31.82	1.96	0.81	0.78	343.55
NT Biological rep 1 Technical rep 3	39.73	1.52	10.35	1.93	0.83	0.74	343.93
NT Biological rep 2 Technical rep 1	42.06	0.72	27.16	2.15	0.92	0.69	339.96
NT Biological rep 2 Technical rep 2	38.55	0.75	0.00	2.02	0.82	0.63	334.42
NT Biological rep 2 Technical rep 3	176.37	1.04	17.23	2.19	0.83	0.56	337.21
NT Biological rep 3 Technical rep 1	134.91	0.74	18.69	2.93	0.85	0.51	334.80
NT Biological rep 3 Technical rep 2	84.98	0.79	20.62	2.54	0.81	0.52	332.93
NT Biological rep 3 Technical rep 3	66.99	0.47	14.88	2.57	0.84	0.57	315.89
+IFN $\alpha$ Biological rep 1 Technical rep 1	45.21	0.36	156.27	3.07	1.86	1.18	341.19
+IFN $\alpha$ Biological rep 1 Technical rep 2	40.74	0.50	145.35	3.85	2.09	1.21	327.66
+IFN $\alpha$ Biological rep 1 Technical rep 3	46.10	0.72	107.46	3.44	2.31	1.13	352.38
+IFN $\alpha$ Biological rep 2 Technical rep 1	63.83	0.52	169.52	3.38	1.89	1.68	334.00
+IFN $\alpha$ Biological rep 2 Technical rep 2	60.17	0.40	164.09	3.12	1.89	1.77	334.49
+IFN $\alpha$ Biological rep 2 Technical rep 3	56.29	0.48	194.06	3.04	1.82	1.68	343.59
+IFN $\alpha$ Biological rep 3 Technical rep 1	33.38	0.44	166.54	2.85	1.83	1.60	337.76
+IFN $\alpha$ Biological rep 3 Technical rep 2	29.85	0.33	147.09	2.56	1.93	1.53	345.85
+IFN $\alpha$ Biological rep 3 Technical rep 3	30.86	0.43	149.62	5.67	2.28	1.49	346.78

**Table S4b**

Metabolite	NT			IFN $\alpha$			p-value
	Mean	SD	N	Mean	SD	N	NT vs. IFN $\alpha$
Arachidonic acid	75.0122	49.2474	9	45.1589	12.7271	9	0.0974
2-Arachidonoylglycerol	1.1978	0.8814	9	0.4644	0.1145	9	0.0249
Palmitic acid	20.9000	13.5131	9	155.5556	23.4410	9	< 0.0001
Prostaglandin F <sub>2<math>\alpha</math></sub>	2.24667	0.3543	9	3.4422	0.9128	9	0.0021
Stearic acid	0.8333	0.0371	9	1.9889	0.1909	9	< 0.0001
5-HETE	0.6389	0.1042	9	1.4744	0.2414	9	< 0.0001
Leukotriene C <sub>4</sub>	336.0922	8.6054	9	340.4111	7.6640	9	0.2774

**Table S4c**

	<b>AA</b>	<b>2-AG</b>	<b>Palmitic acid</b>	<b>PGF<sub>2<math>\alpha</math></sub></b>	<b>Stearic acid</b>	<b>5-HETE</b>	<b>Leukotriene C<sub>4</sub></b>
NT mean	75.01	1.20	20.90	2.25	0.83	0.64	336.09
NT std.dev	22.48	0.63	6.46	0.32	0.02	0.09	6.31
NT CV (%)	29.97	53.03	30.91	14.07	2.17	14.44	1.88
+IFN $\alpha$ mean	45.16	0.47	155.55	3.44	1.99	1.47	340.41
+IFN $\alpha$ std.dev	11.76	0.05	16.16	0.21	0.09	0.22	2.49
+IFN $\alpha$ CV (%)	26.04	11.27	10.39	6.11	4.60	15.18	0.73

**Table S4d**

	<b>AA</b>	<b>2-AG</b>	<b>Palmitic acid</b>	<b>PGF<sub>2<math>\alpha</math></sub></b>	<b>Stearic acid</b>	<b>5-HETE</b>	<b>Leukotriene C<sub>4</sub></b>
NT Biological rep 1 mean	43.75	2.09	29.84	1.94	0.81	0.76	343.21
NT Biological rep 1 std.dev	3.18	0.91	15.17	0.01	0.01	0.02	0.77
NT Biological rep 1 CV (%)	7.27	43.37	50.85	0.74	1.76	2.53	0.22
NT Biological rep 2 mean	85.66	0.84	22.19	2.12	0.85	0.63	337.20
NT Biological rep 2 std.dev	64.16	0.14	4.96	0.07	0.05	0.05	2.26
NT Biological rep 2 CV (%)	74.90	17.11	22.36	3.37	5.53	8.13	0.67
NT Biological rep 3 mean	95.63	0.67	18.07	2.68	0.83	0.53	327.87
NT Biological rep 3 std.dev	28.73	0.14	2.39	0.18	0.02	0.03	8.51
NT Biological rep 3 CV (%)	30.04	21.53	13.20	6.74	1.87	4.98	2.59
+IFN $\alpha$ Biological rep 1 mean	44.01	0.53	136.36	3.46	2.09	1.17	340.41
+IFN $\alpha$ Biological rep 1 std.dev	2.35	0.15	20.92	0.32	0.18	0.03	10.10
+IFN $\alpha$ Biological rep 1 CV (%)	5.33	28.03	15.34	9.21	8.81	2.47	2.97
+IFN $\alpha$ Biological rep 2 mean	60.10	0.47	175.89	3.18	1.87	1.71	337.36
+IFN $\alpha$ Biological rep 2 std.dev	3.08	0.05	13.04	0.14	0.03	0.04	4.41
+IFN $\alpha$ Biological rep 2 CV (%)	5.12	10.85	7.41	4.55	1.86	2.44	1.31
+IFN $\alpha$ Biological rep 3 mean	31.36	0.40	154.42	3.70	2.01	1.54	343.47
+IFN $\alpha$ Biological rep 3 std.dev	1.48	0.05	8.63	1.40	0.19	0.05	4.05
+IFN $\alpha$ Biological rep 3 CV (%)	4.73	12.60	5.59	37.98	9.57	2.96	1.18

**Table S5**

<b>Lipid</b>	<b>Linear Regression Equation</b>	<b>R<sup>2</sup></b>
5-oxo-ETE	$Y = 63948 * X + 9971$	0.982
Arachidonic acid	$Y = 78582 * X + 16322$	0.997
2-Arachidonoylglycerol	$Y = 20023 * X + 7784$	0.985
Palmitic acid	$Y = 19661.2 * X + 1388$	0.950
Prostaglandin D <sub>2</sub> /E <sub>2</sub>	$Y = 405.2 * X + 239.9$	0.953
Prostaglandin F <sub>2α</sub>	$Y = 2214017 * X + 1484422$	0.980
Stearic acid	$Y = 707077 * X + 207066$	0.959
5-HETE	$Y = 3817994 * X + 477523$	0.991
Leukotriene C <sub>4</sub>	$Y = 794330 * X + 2171027$	0.999