

Lipid Traffic Analysis reveals the impact of high paternal carbohydrate intake on offsprings' lipid metabolism

Supplementary data 2

Furse *et al.*

Sections

- Assignments
- Samples
- Degradation test

Assignments

Shift (ppm)	Assignment
0.00	Phosphatidylcholine*
0.05	plasmalogen-Phosphatidylcholine
0.18-0.22	<i>Unknown</i>
0.45	<i>lyso</i> -Phosphatidylcholine
0.52	Phosphatidylserine
0.55	Phosphatidylethanolamine**
0.58	plasmalogen-Phosphatidylethanolamine
0.78	Cardiolipin
0.83	Sphingomyelin
0.91	<i>lyso</i> -Phosphatidylethanolamine
1.08-1.12	Phosphatidylinositol
1.23	Phosphatidylglycerol
1.53	<i>lyso</i> -Phosphatidylinositol
1.72	<i>lyso</i> -Phosphatidylglycerol
4.80-5.50	Phosphatidic acid**
6.00-6.50	<i>lyso</i> -Phosphatidic acid

*PC is 0.00 ppm by definition, *i.e.* data were referenced to give the PC signal at 0.00 ppm.

** PE and PA have several resonances, due to interactions with the solvent system and several possible adducts

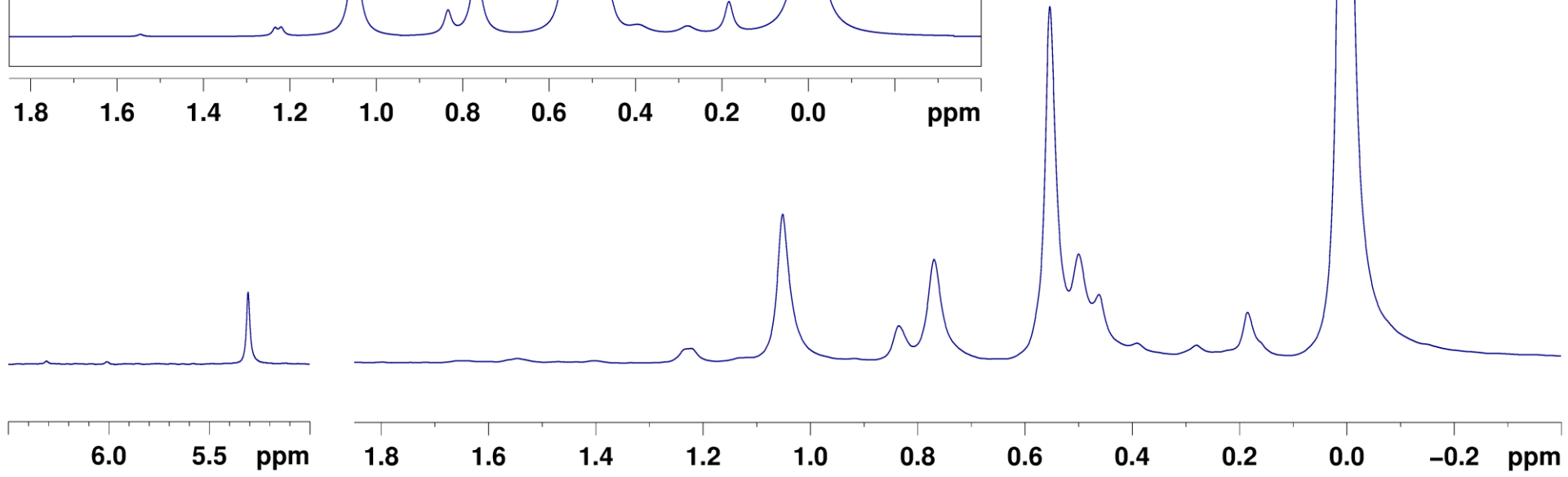
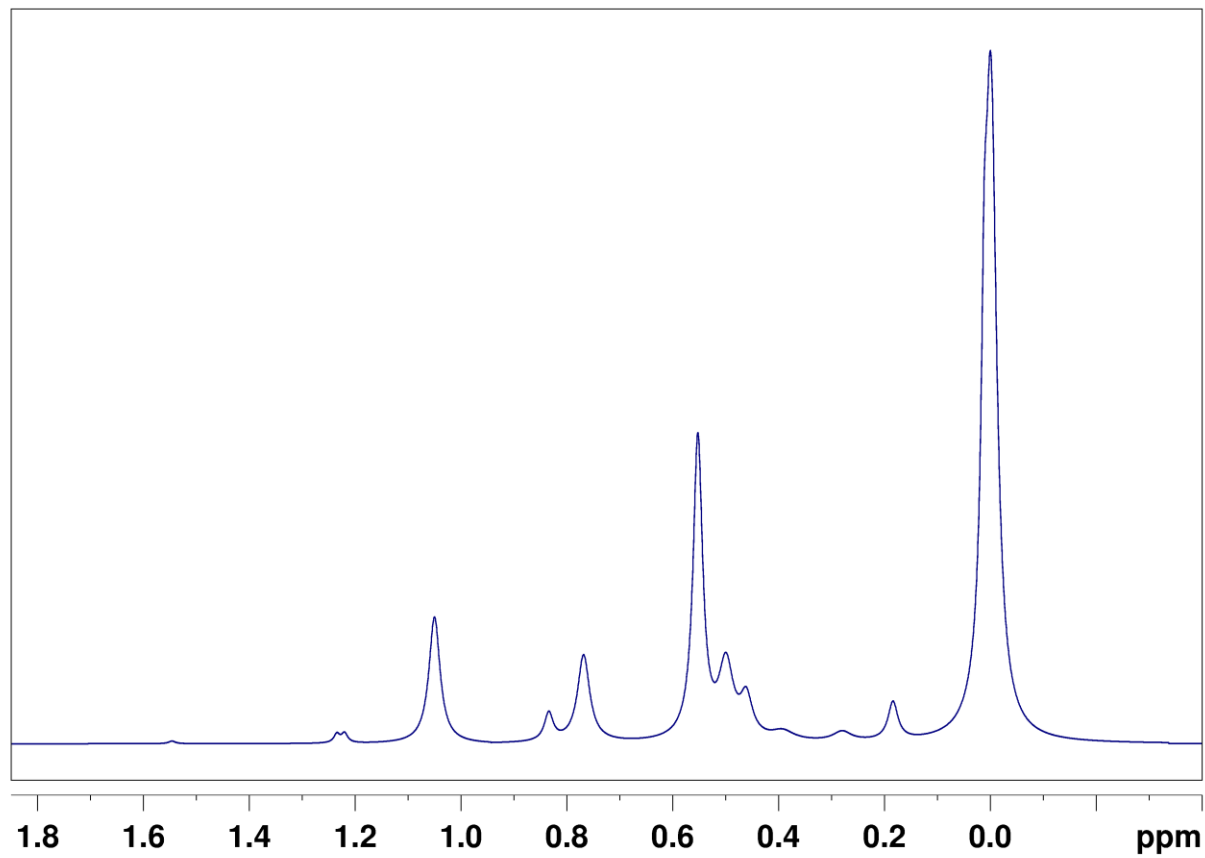
References

- Bosco *et al.* 1997, *Anal. Biochem.* DOI: 10.1006/abio.1996.9907
- Culeddu *et al.* 1998, *Magn. Res. Chem.* DOI: 10.1002/(sici)1097-458x(199812)36:12<907::aid-omr394>3.0.co;2-5
- Murgia, *et al.* 2003, *Lipids*, DOI: 10.1007/s11745-003-1500-3
- Cremonini *et al.* 2004, *J. Sci. Food Agri.* DOI: 10.1002/jsfa.1683
- Furse *et al.* 2013, *J. Chem Biol*, DOI: 10.1007/s12154-012-0090-1

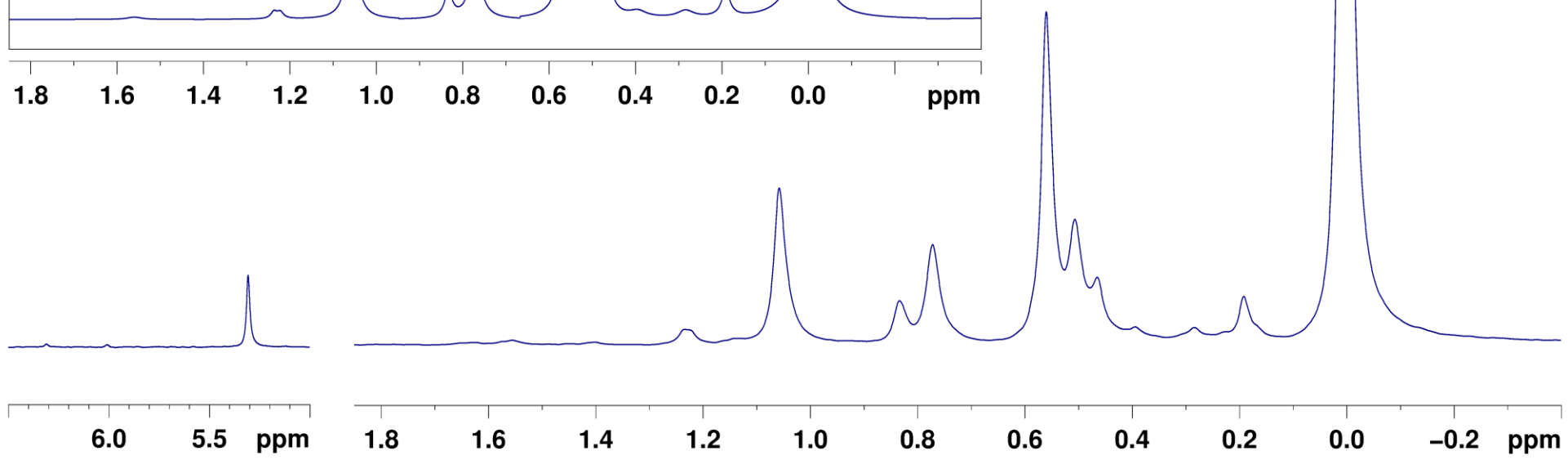
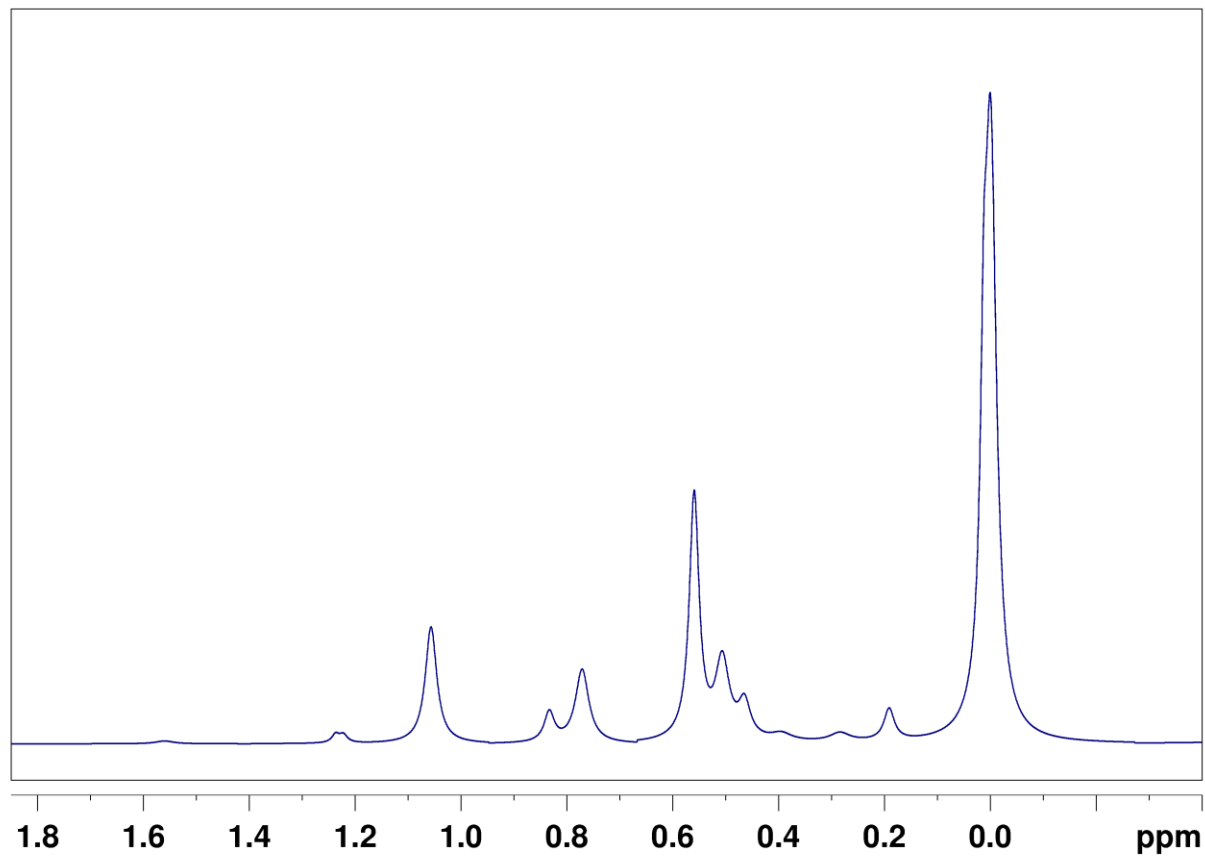
Samples

- Liver
 - F1N
 - NP-NC
 - LP-HC
 - F1A
 - NP-NC
 - LP-HC
 - F2N
 - NP-NC
 - LP-HC
- Heart
 - F1N
 - NP-NC
 - LP-HC
 - F1A
 - NP-NC
 - LP-HC
 - F2N
 - NP-NC
 - LP-HC
- Adipose
 - F1A
 - NP-NC
 - LP-HC
 - LP-HC (petrol washed)
- Serum
 - F2N (pooled)
- Right Brain
 - F1A (pooled)
- Cerebellum
 - F1A male
 - F2N female

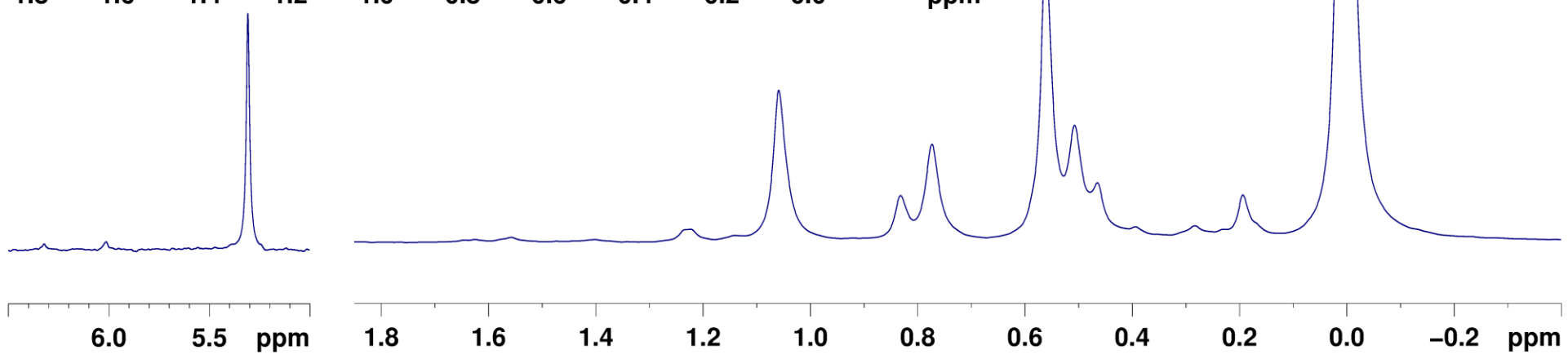
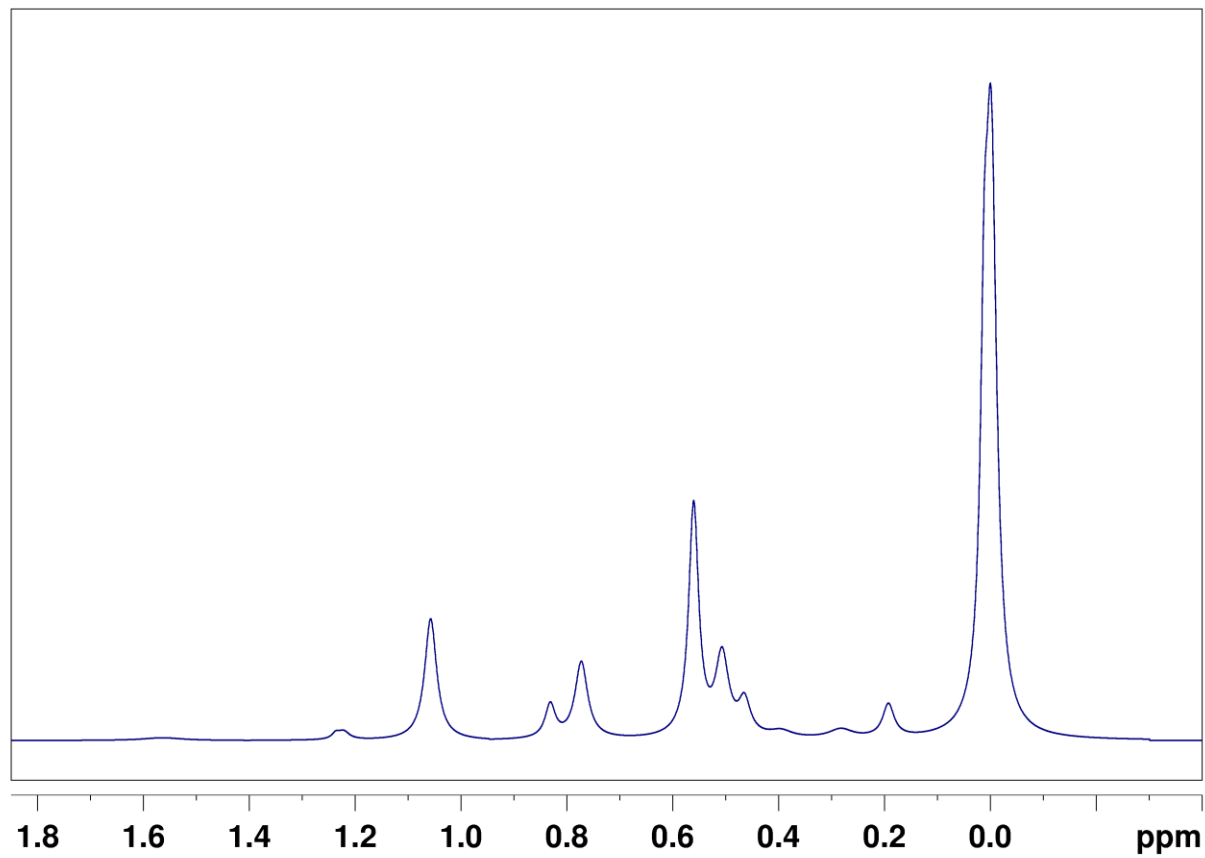
Liver
F1N
NP-NC



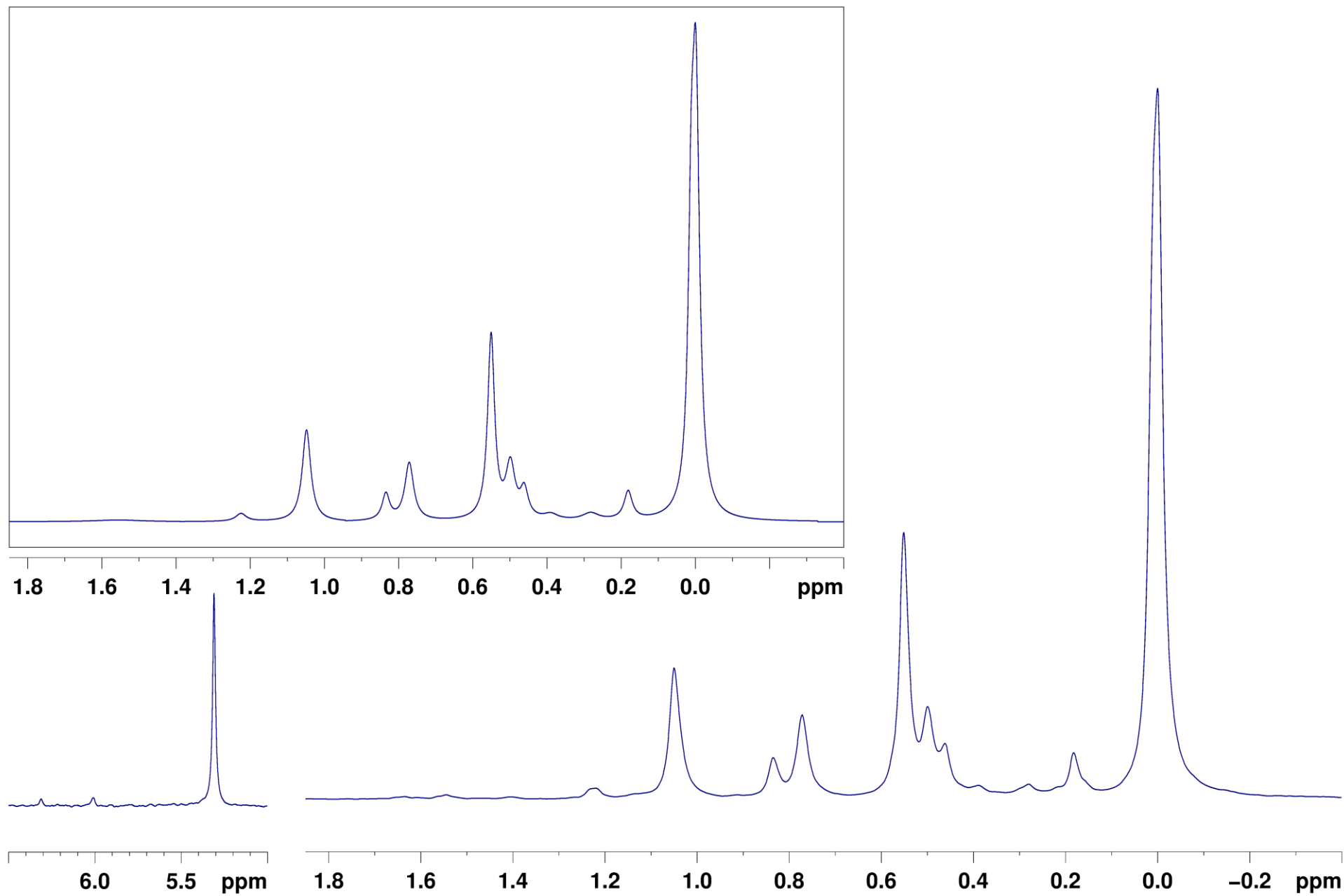
Liver
F1N
LP-HC



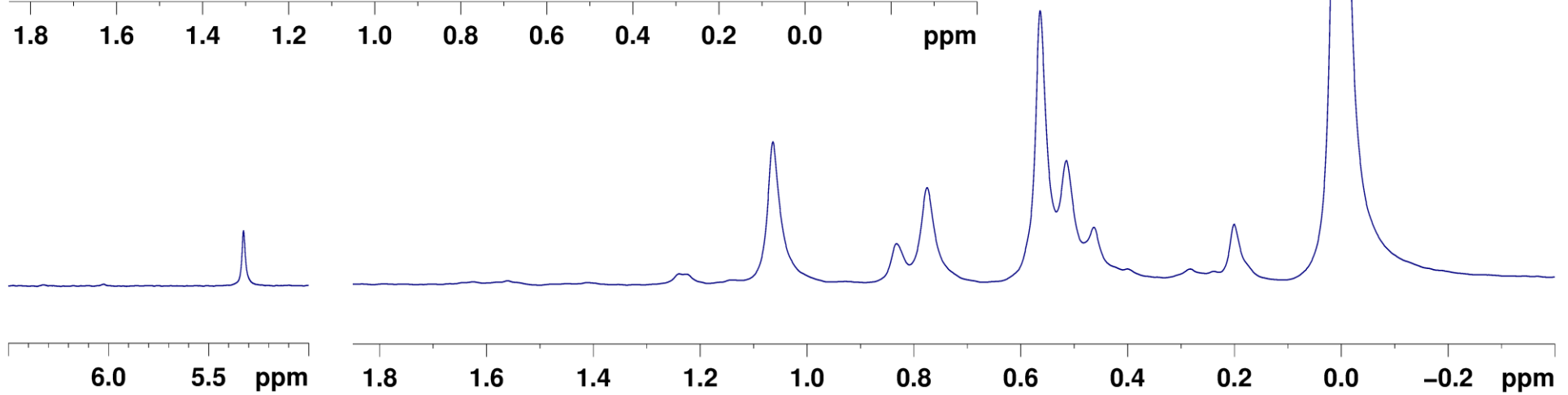
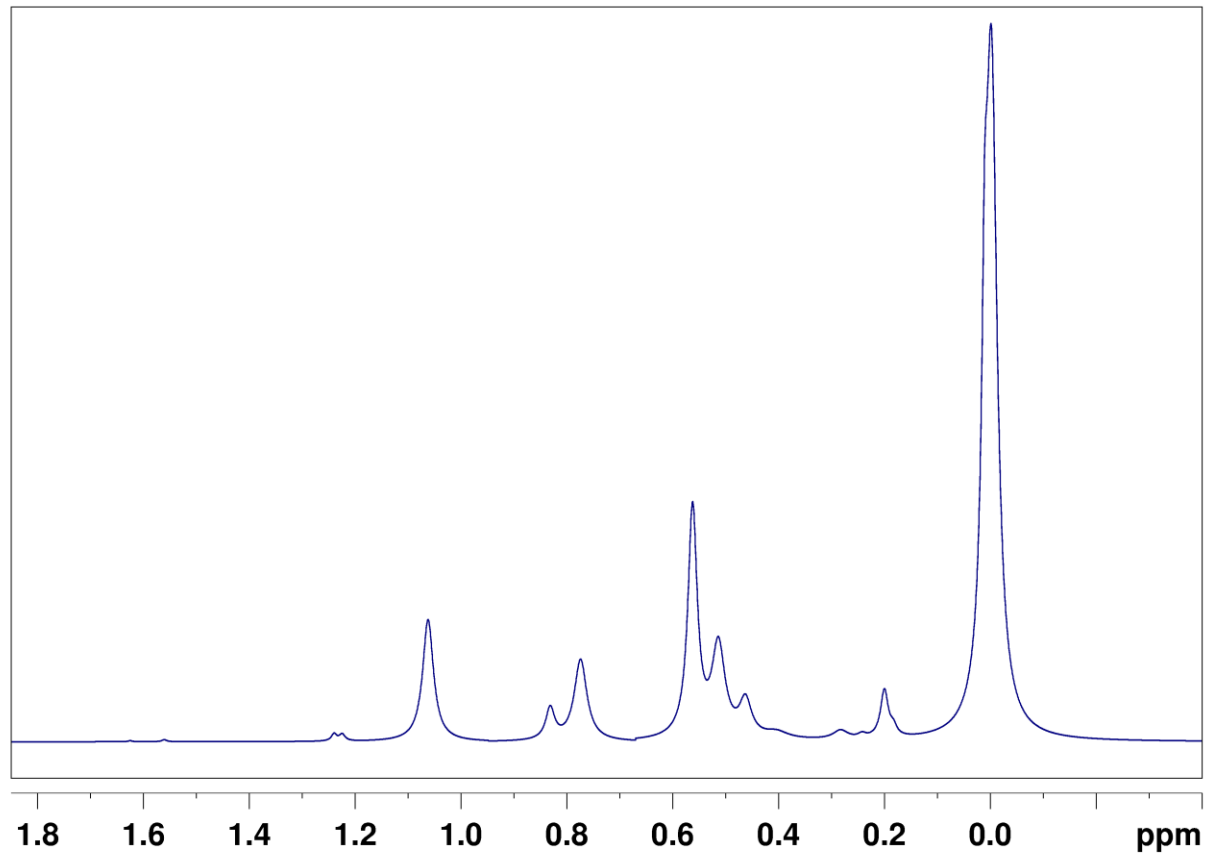
Liver
F1A
NP-NC



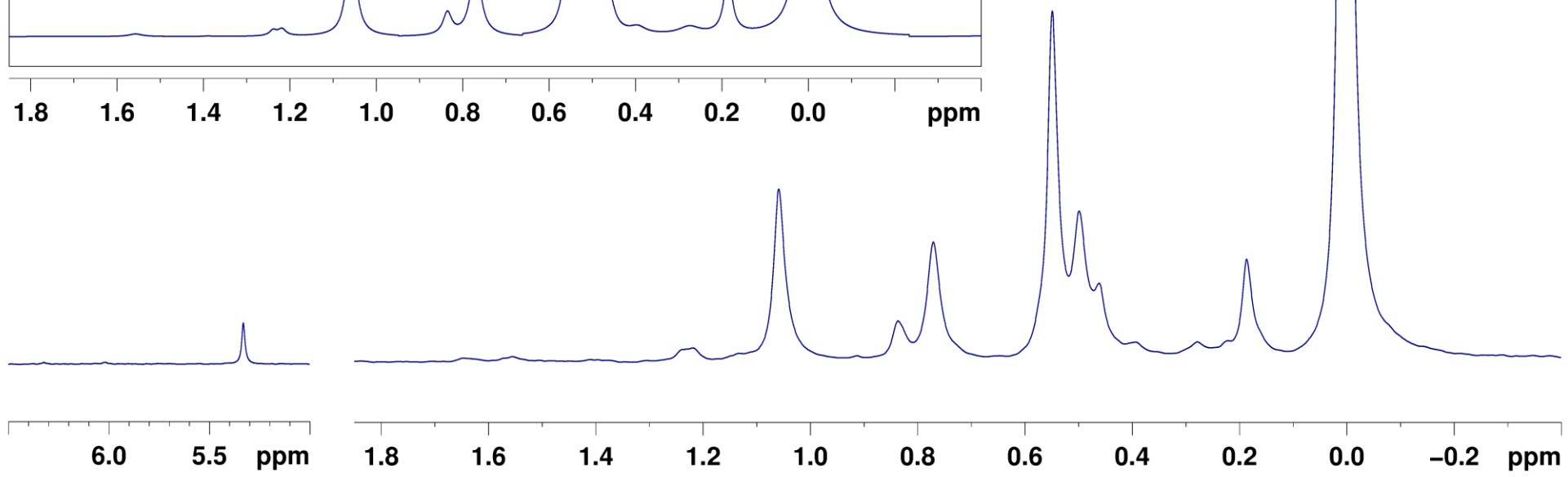
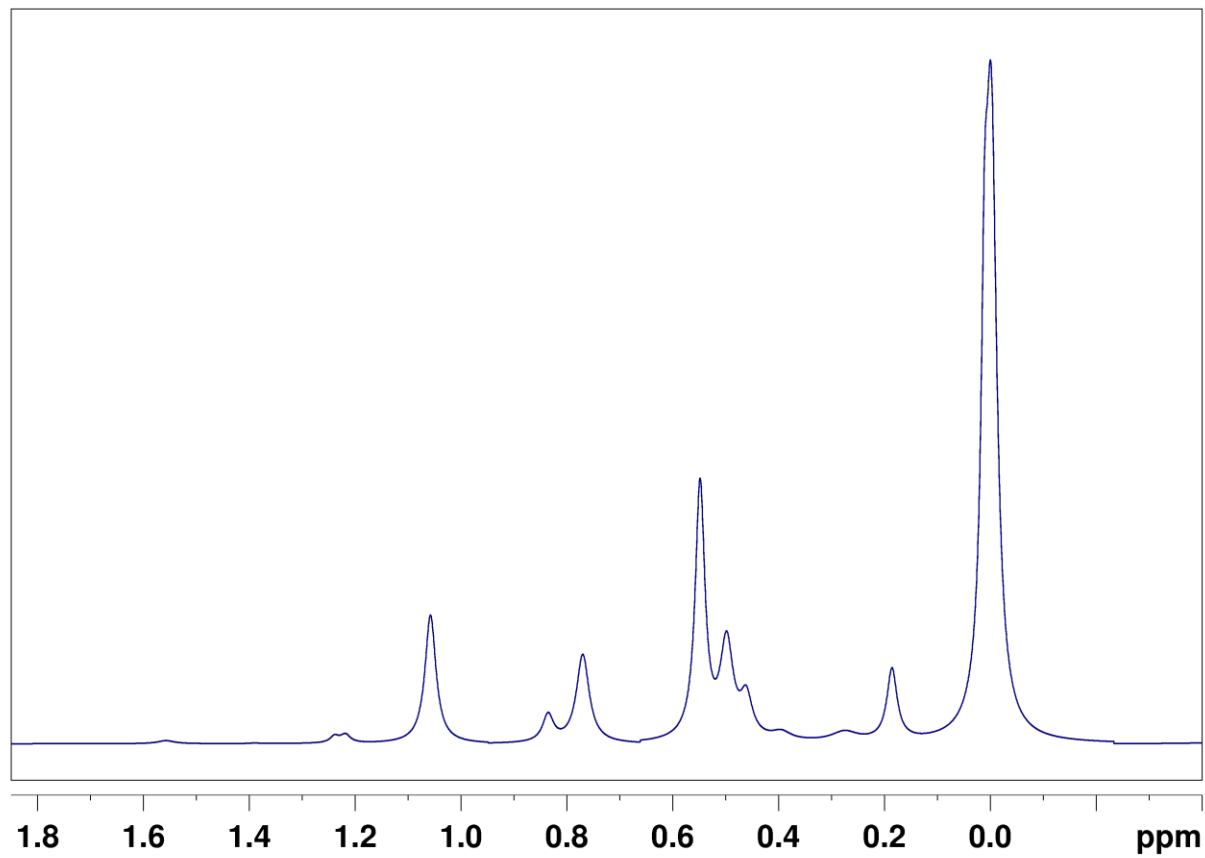
Liver F1A LP-HC



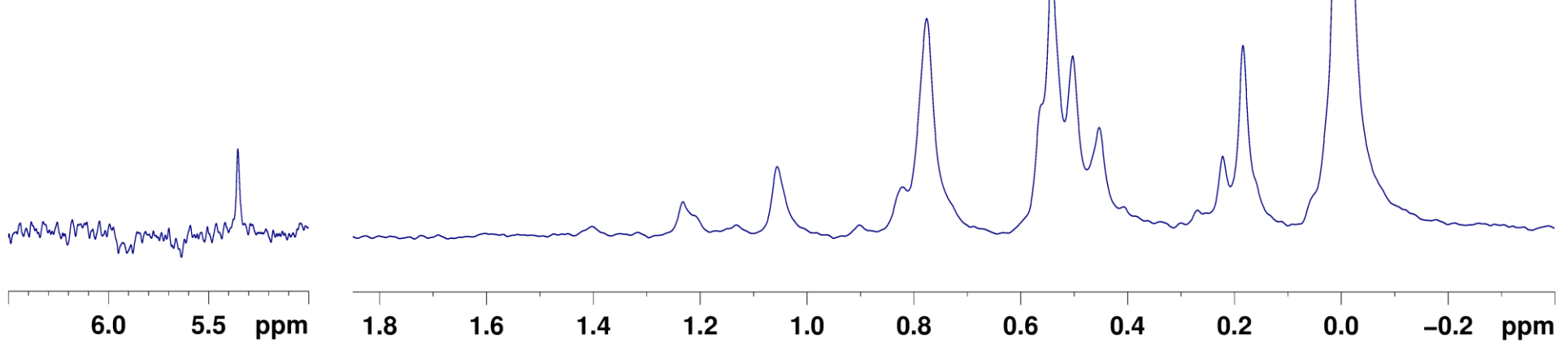
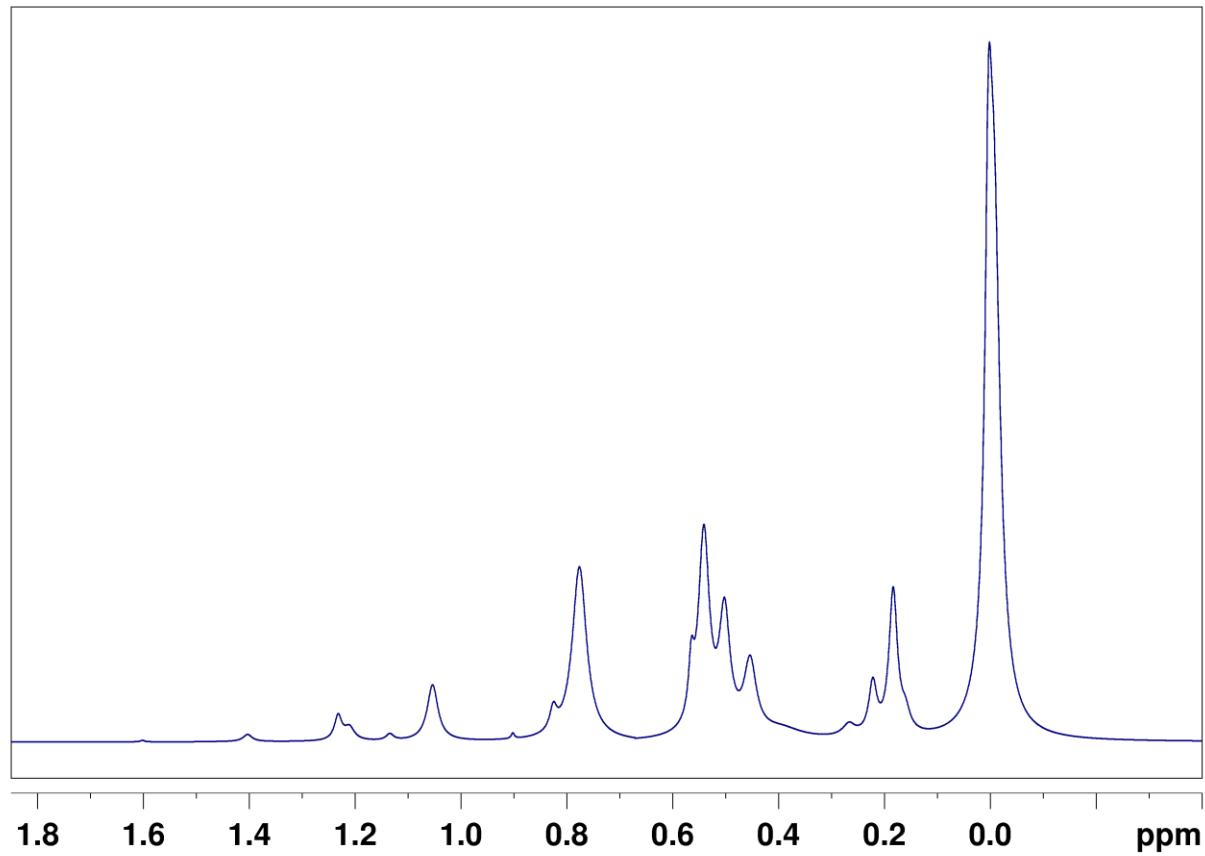
Liver
F2N
NP-NC



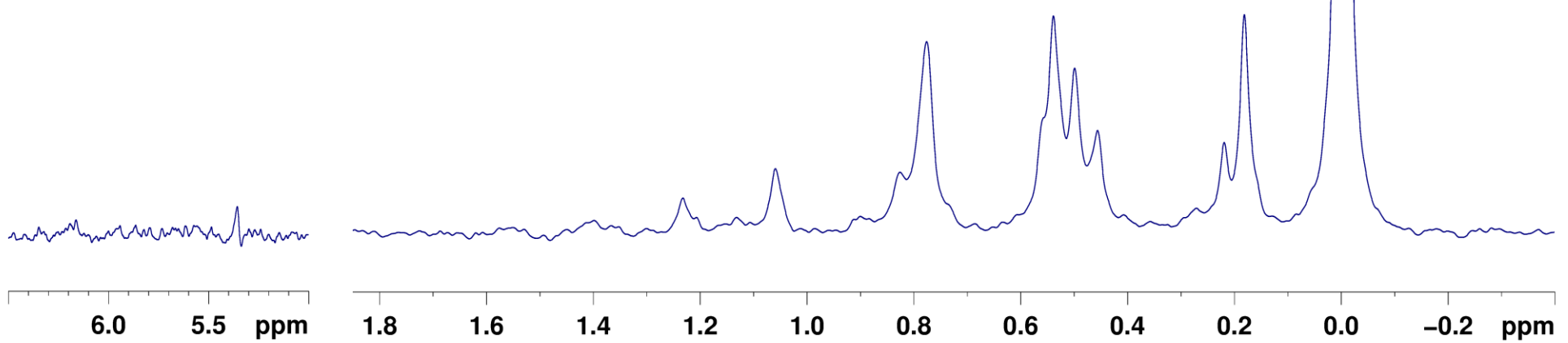
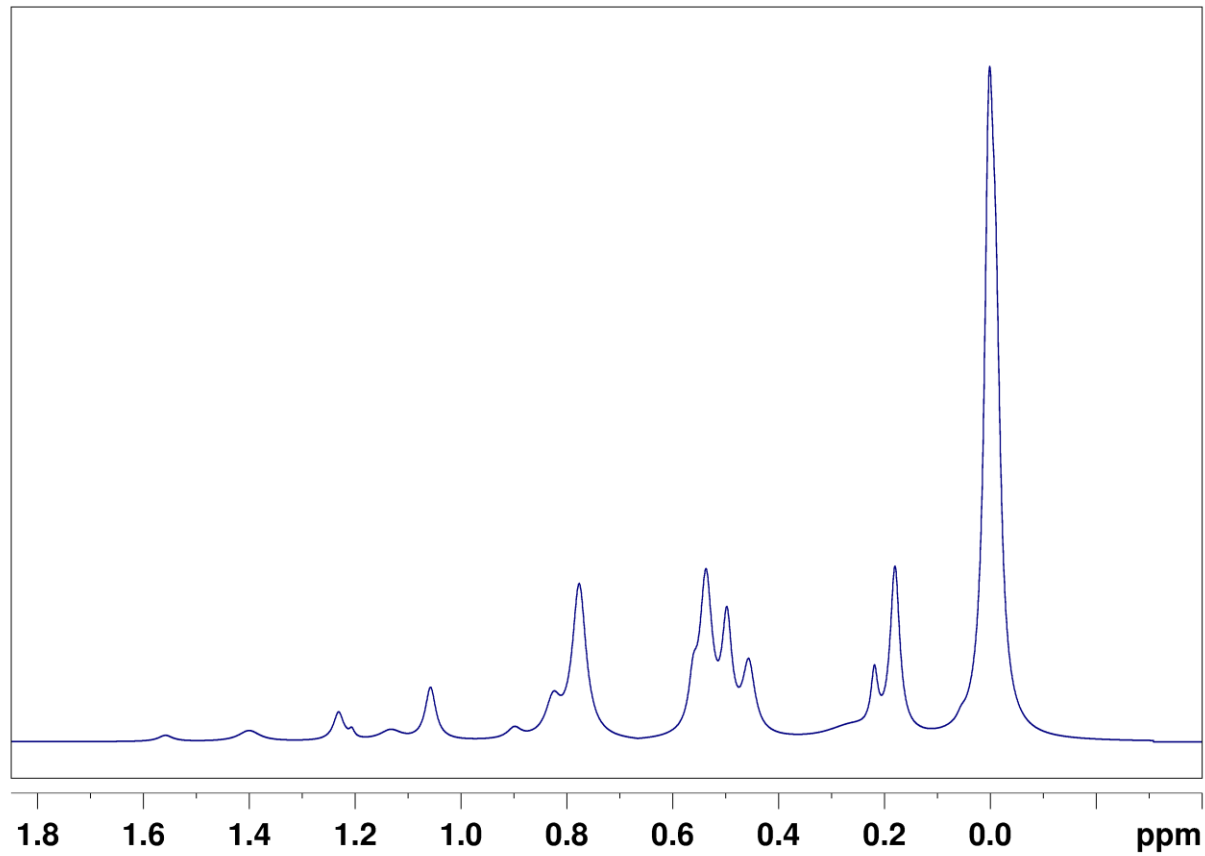
Liver
F2N
LP-HC



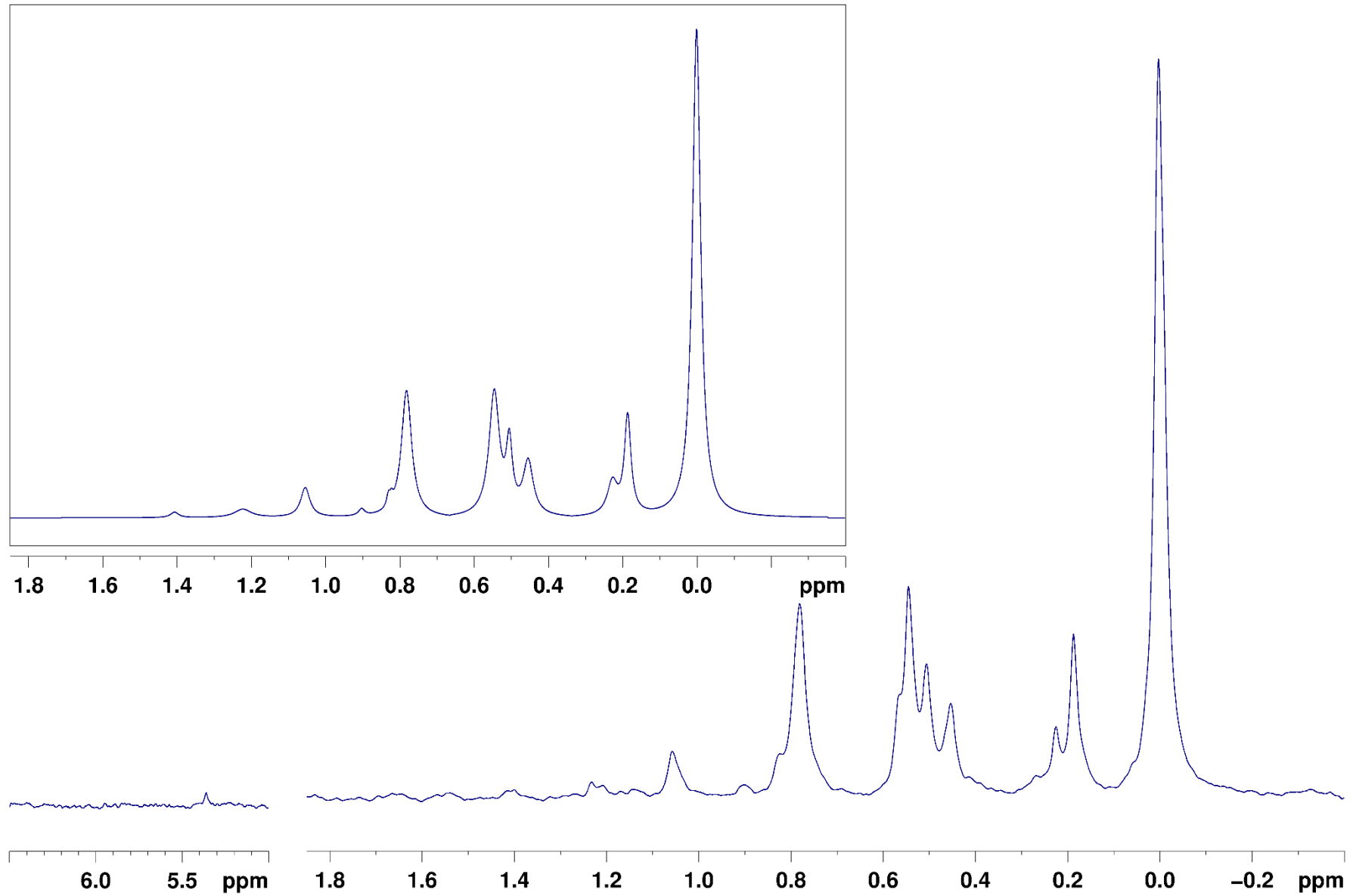
Heart F1N NP-NC



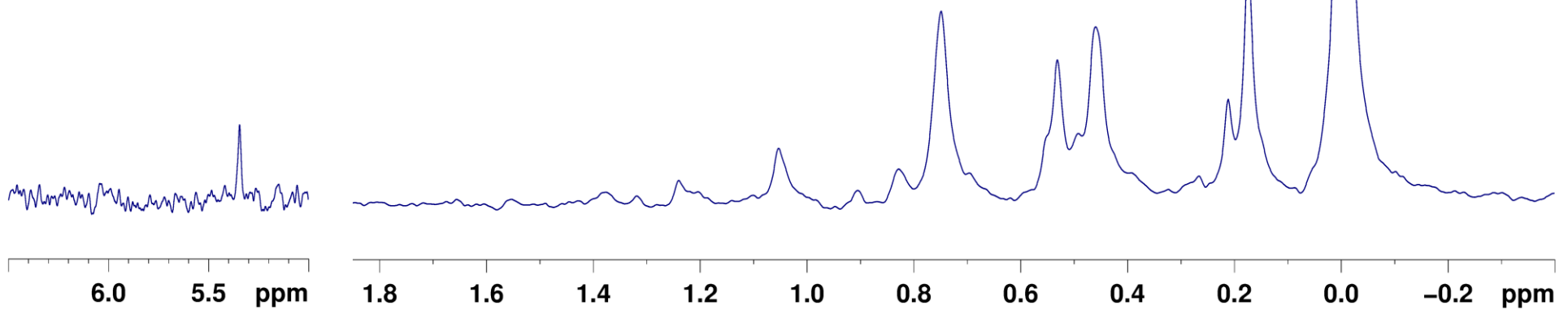
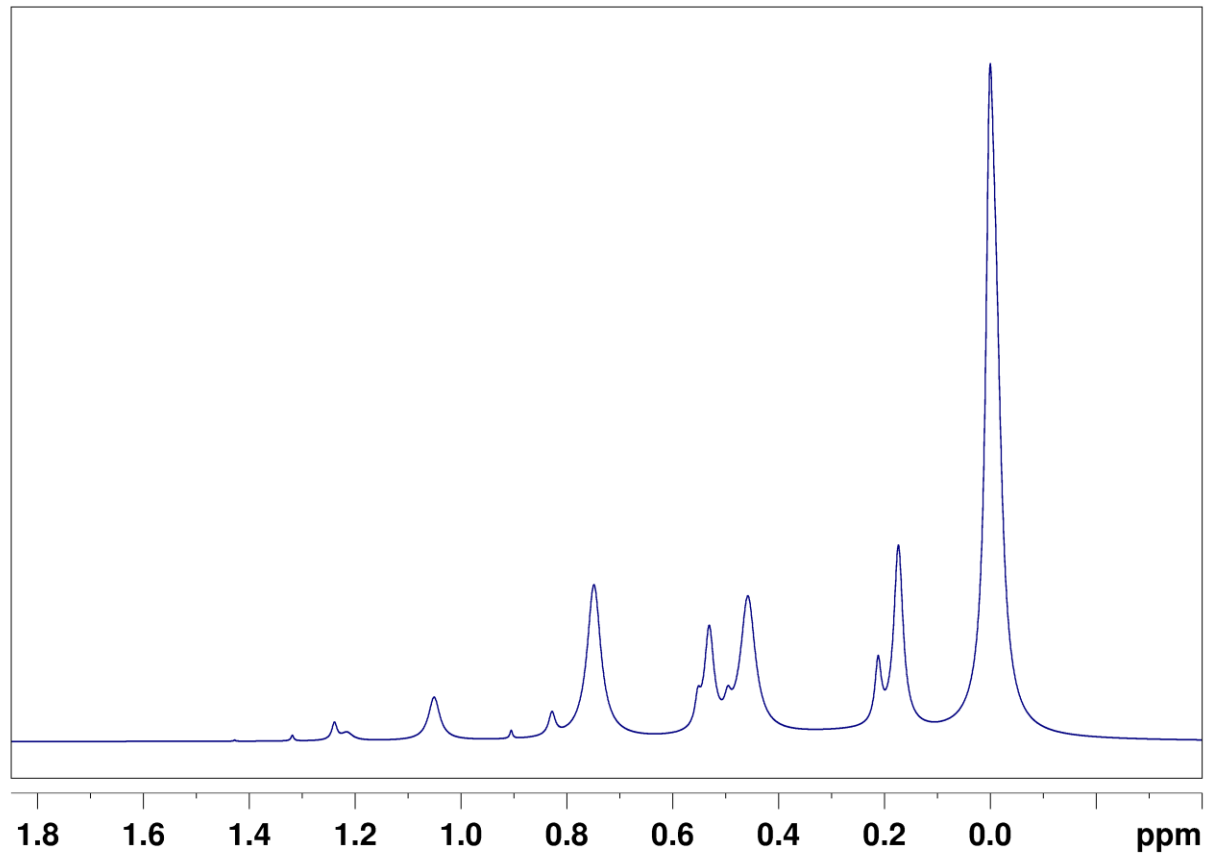
Heart F1N LP-HC



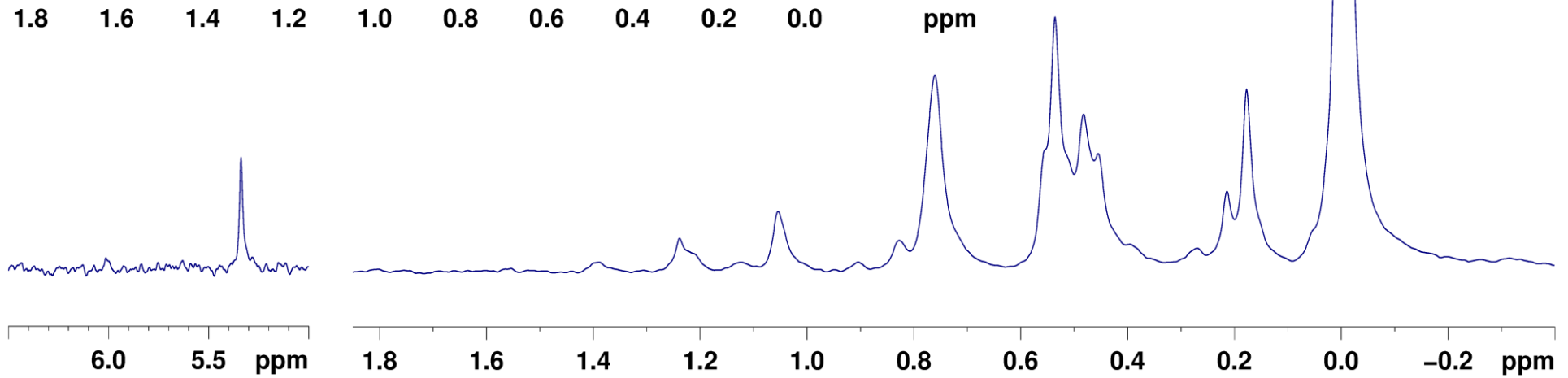
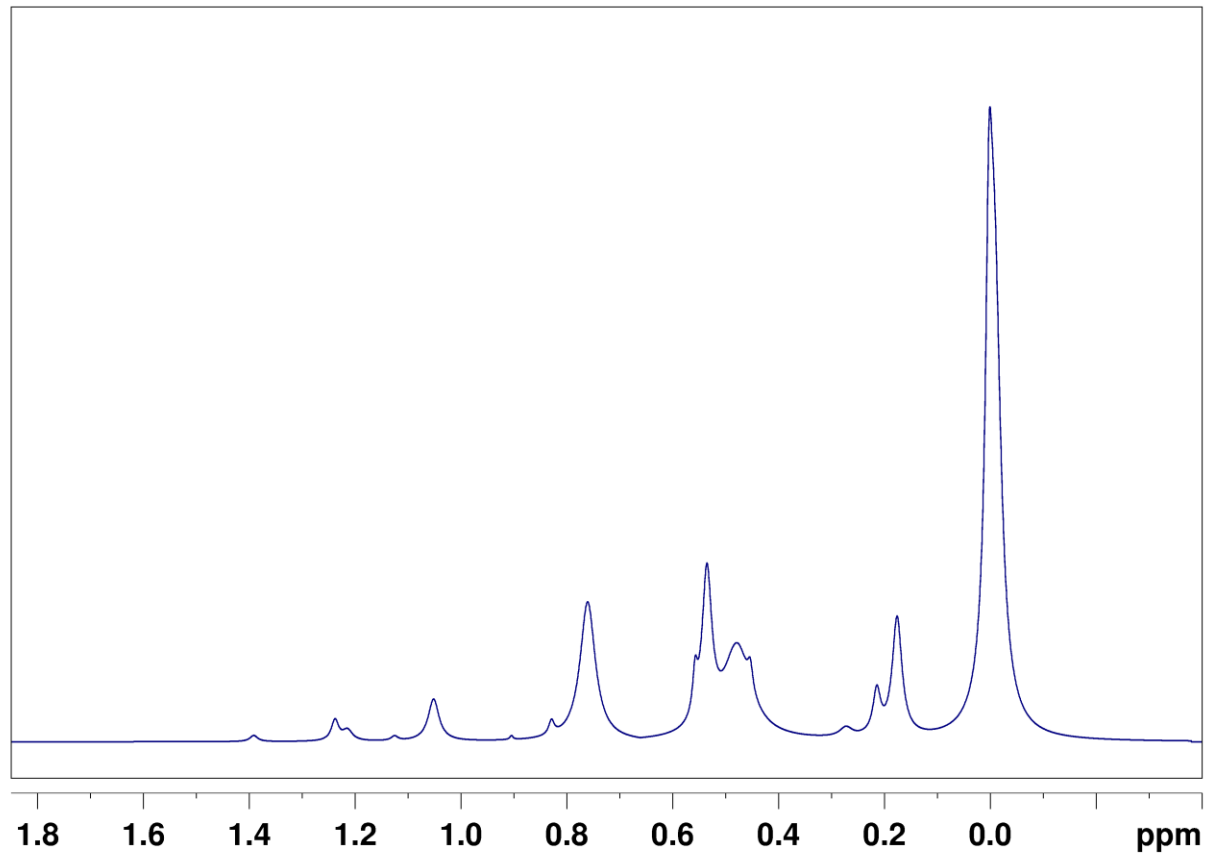
Heart F1A NP-NC



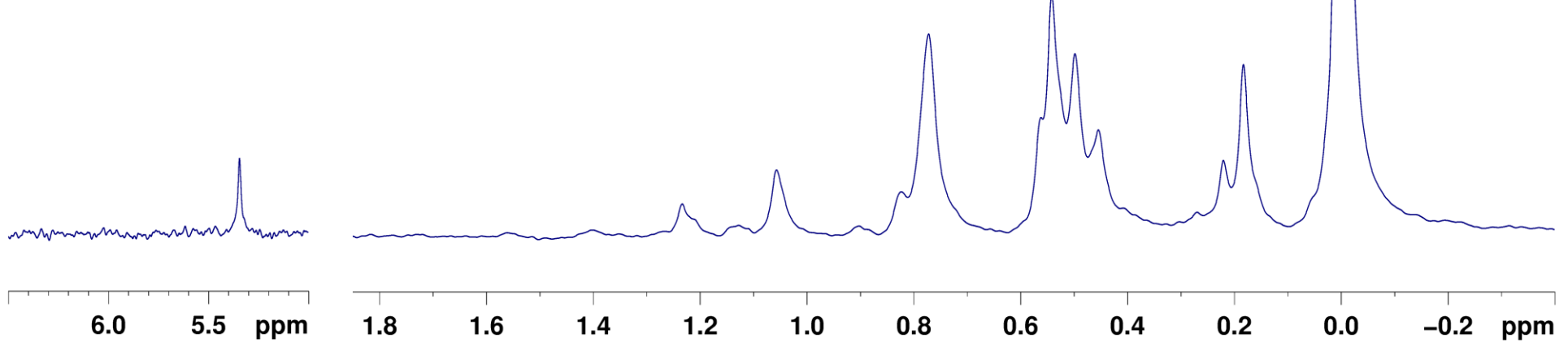
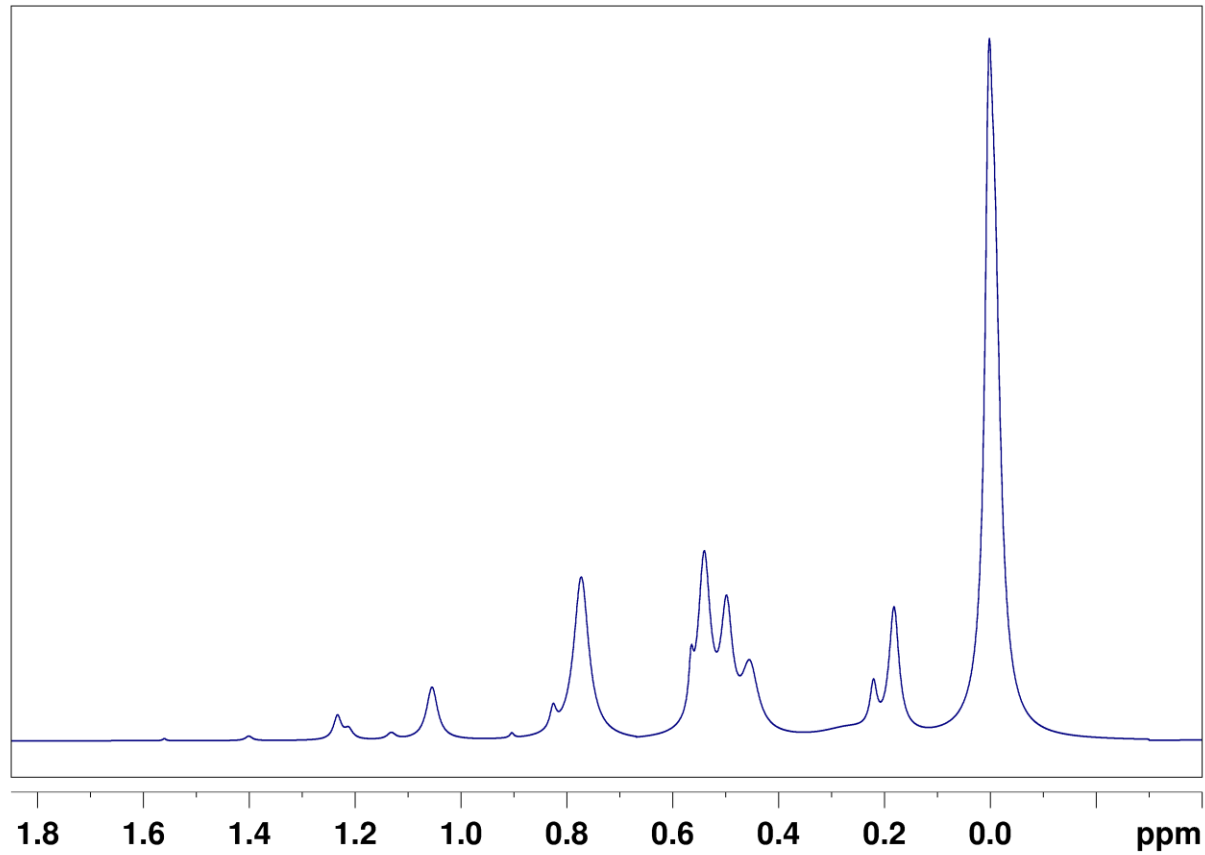
Heart F1A LP-HC



Heart F2N NP-NC



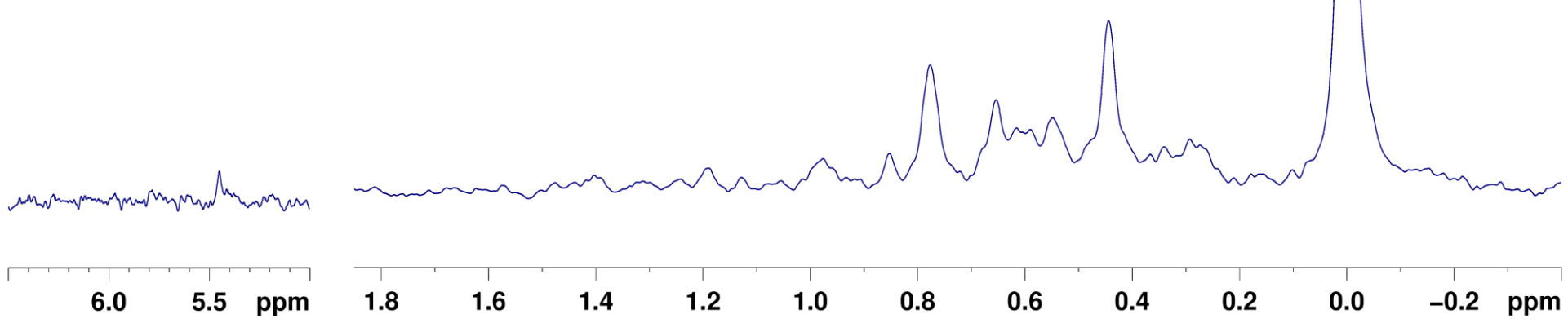
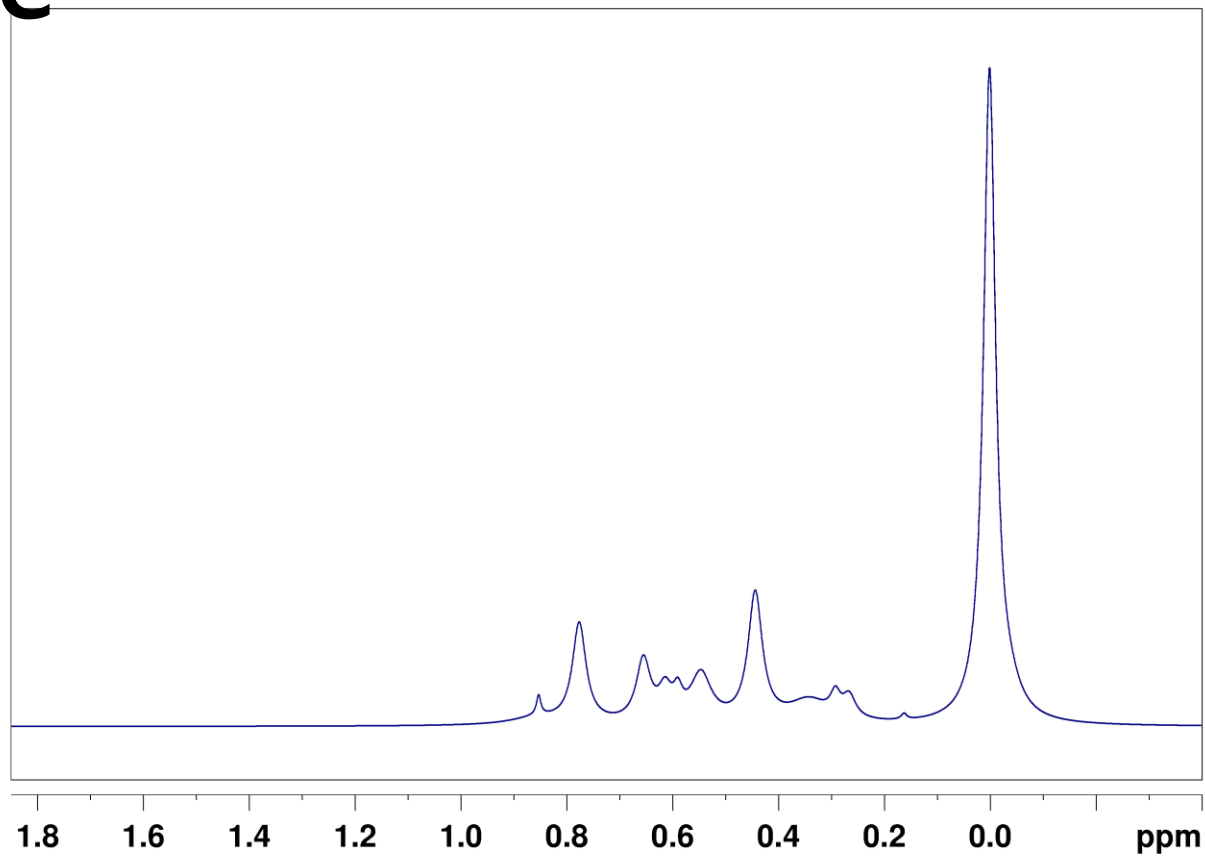
Heart F2N LP-HC



Adipose

F1A

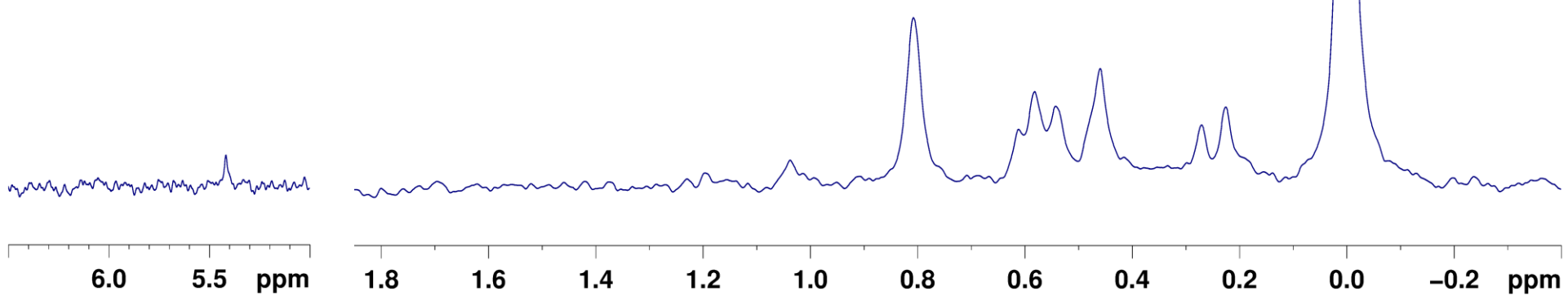
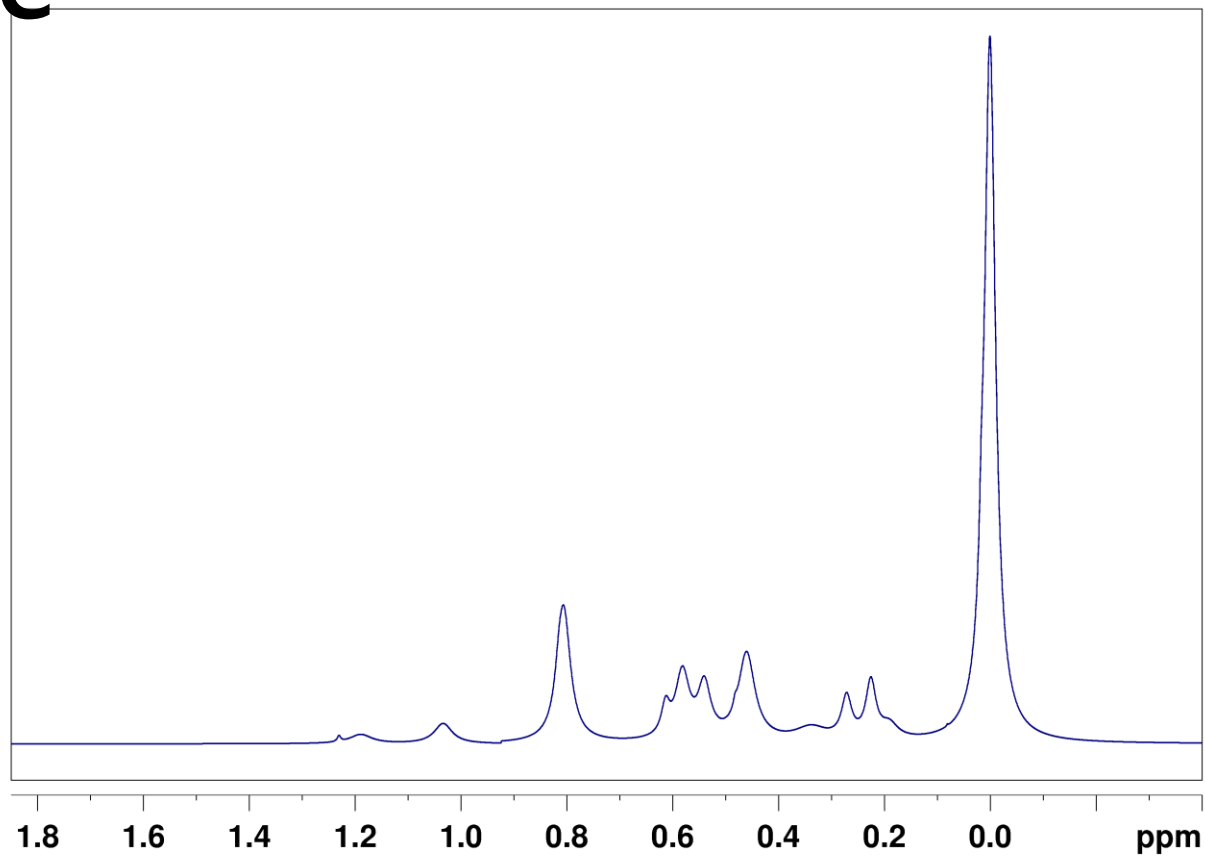
NP-NC



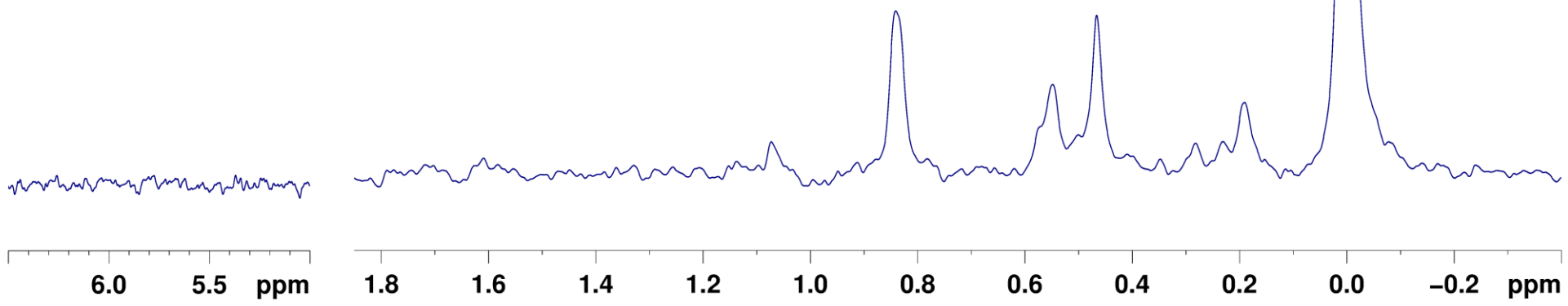
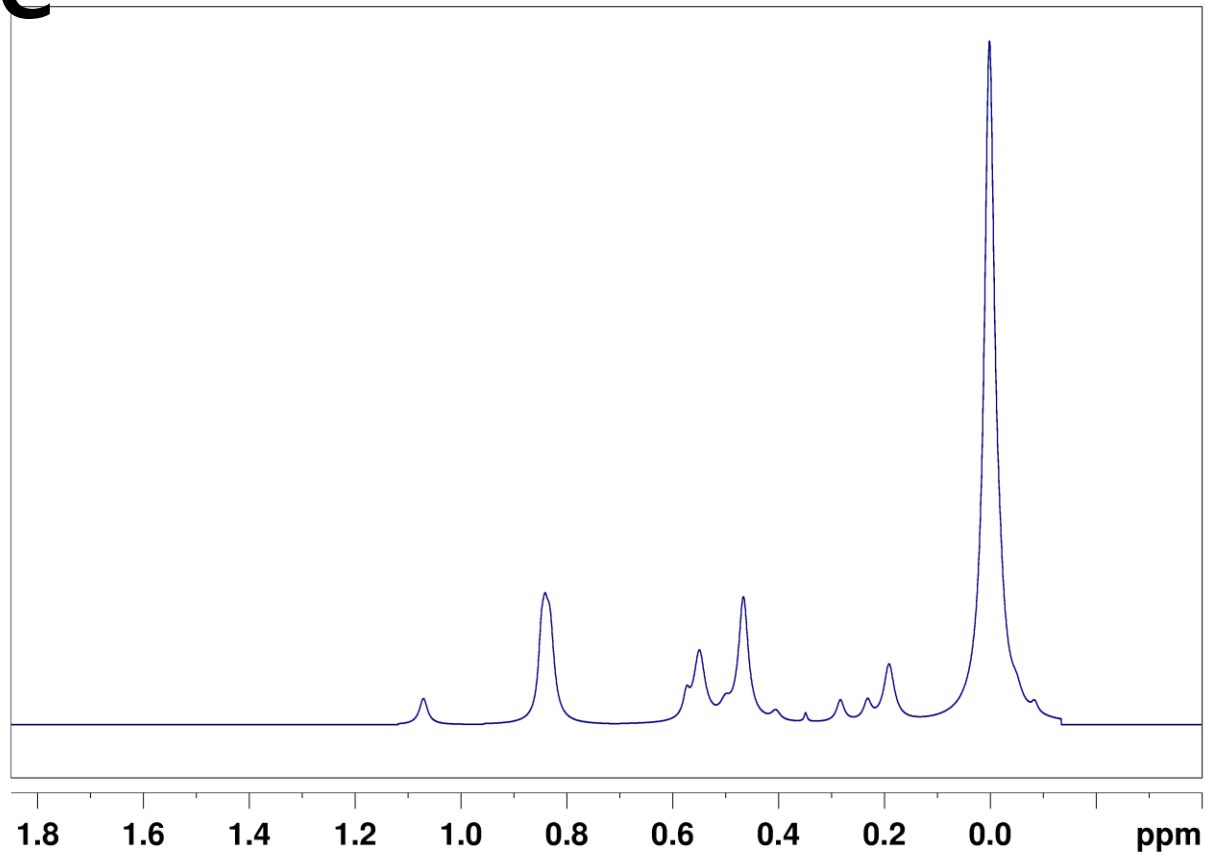
Adipose

F1A

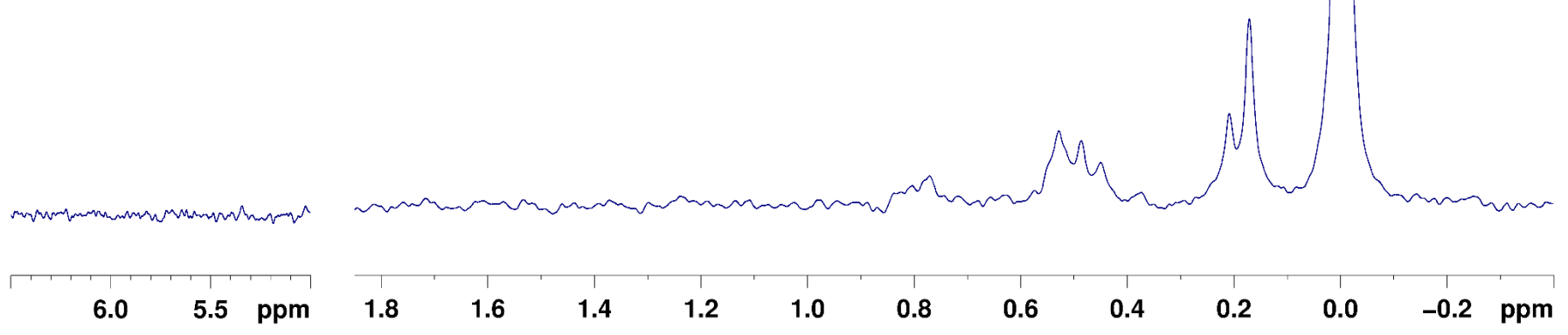
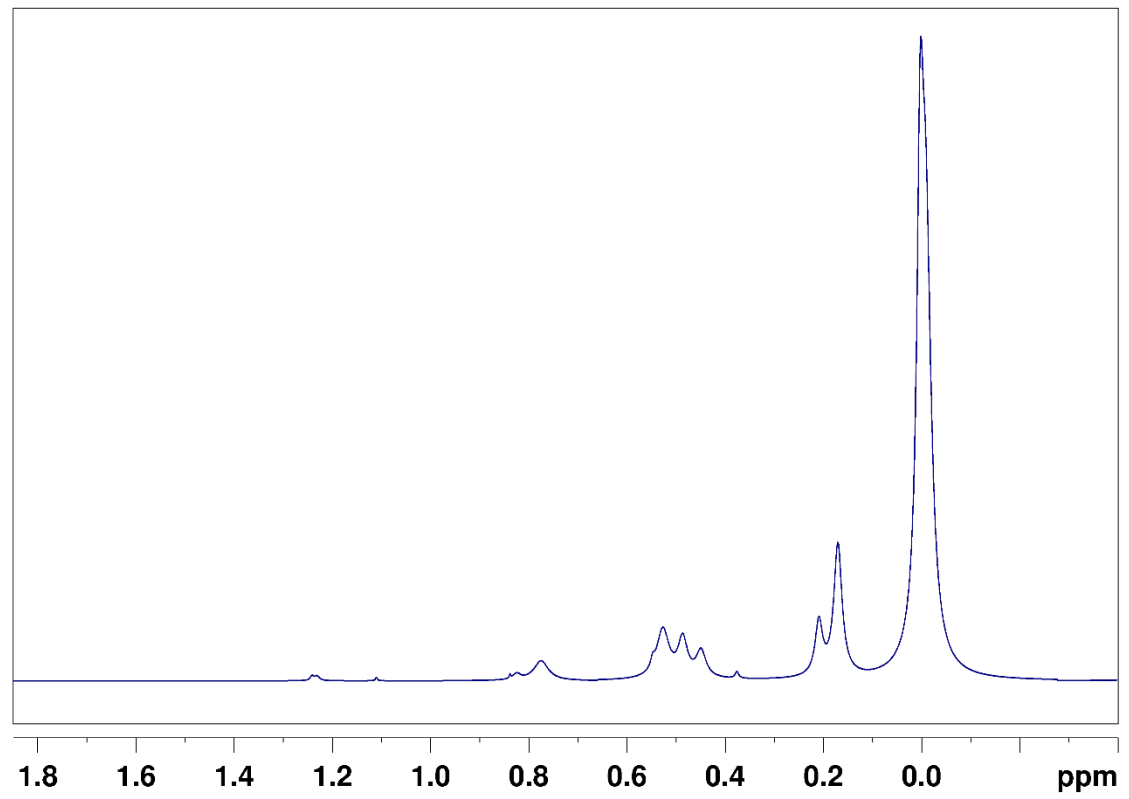
LP-HC



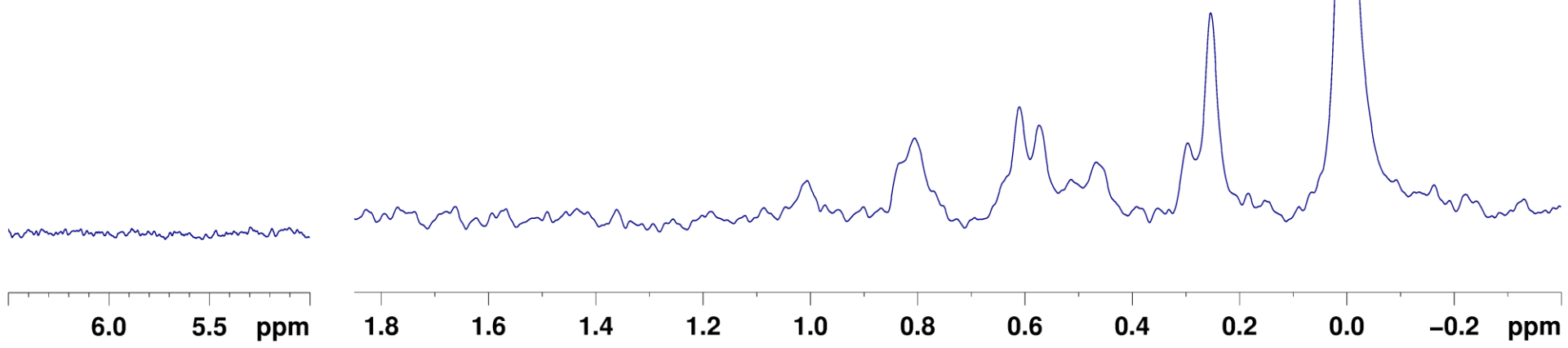
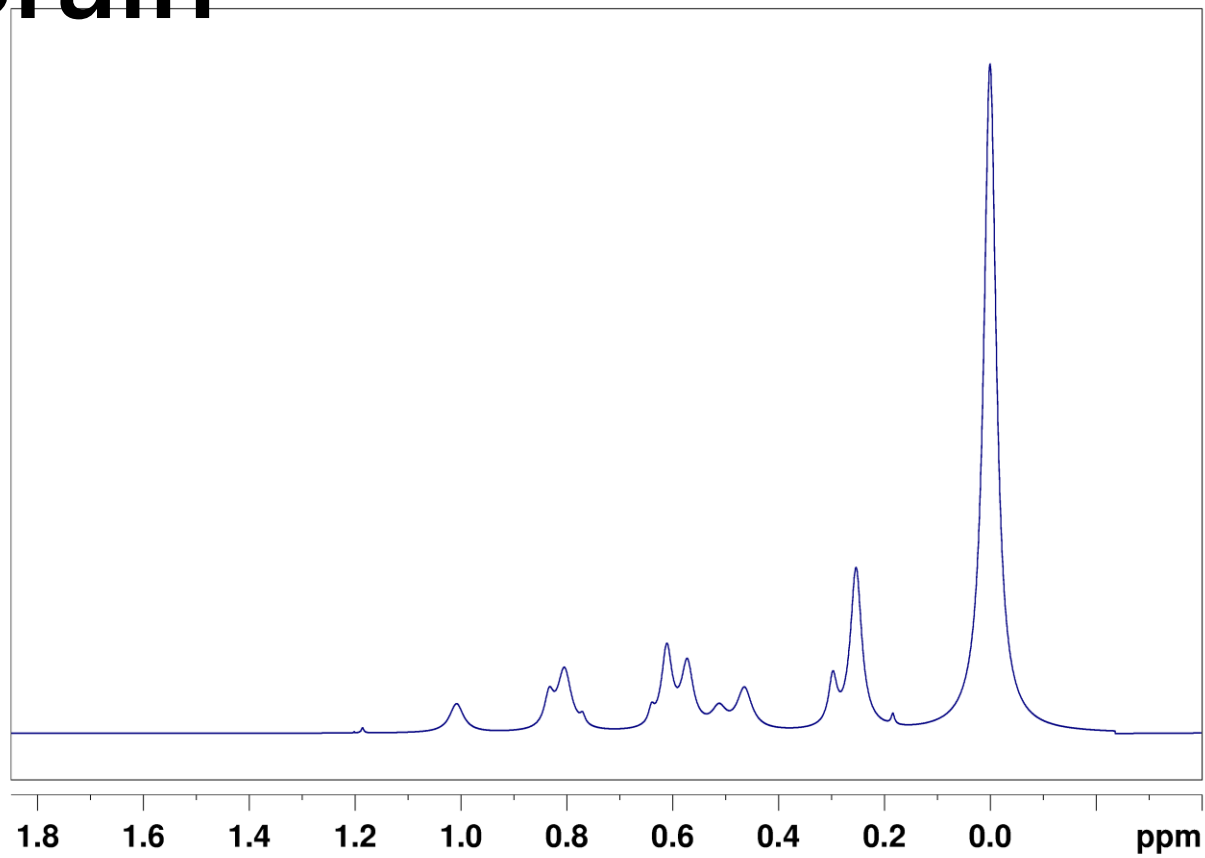
Adipose
F1A
LP-HC
PW



Serum
F2N
Male



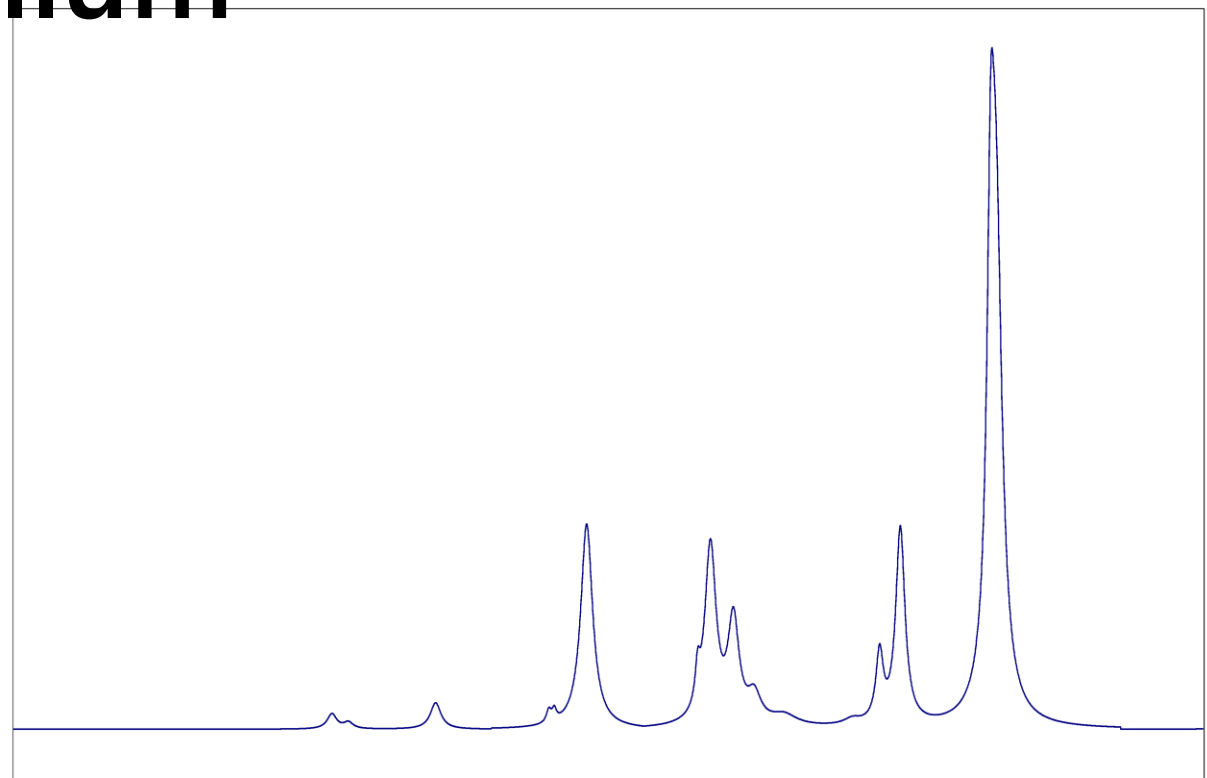
Right Brain F1A Pooled



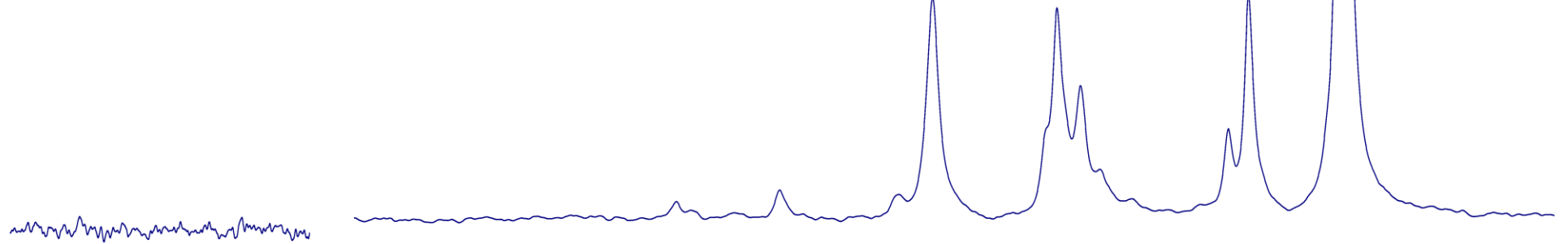
Cerebellum

F1A

Male



1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 ppm



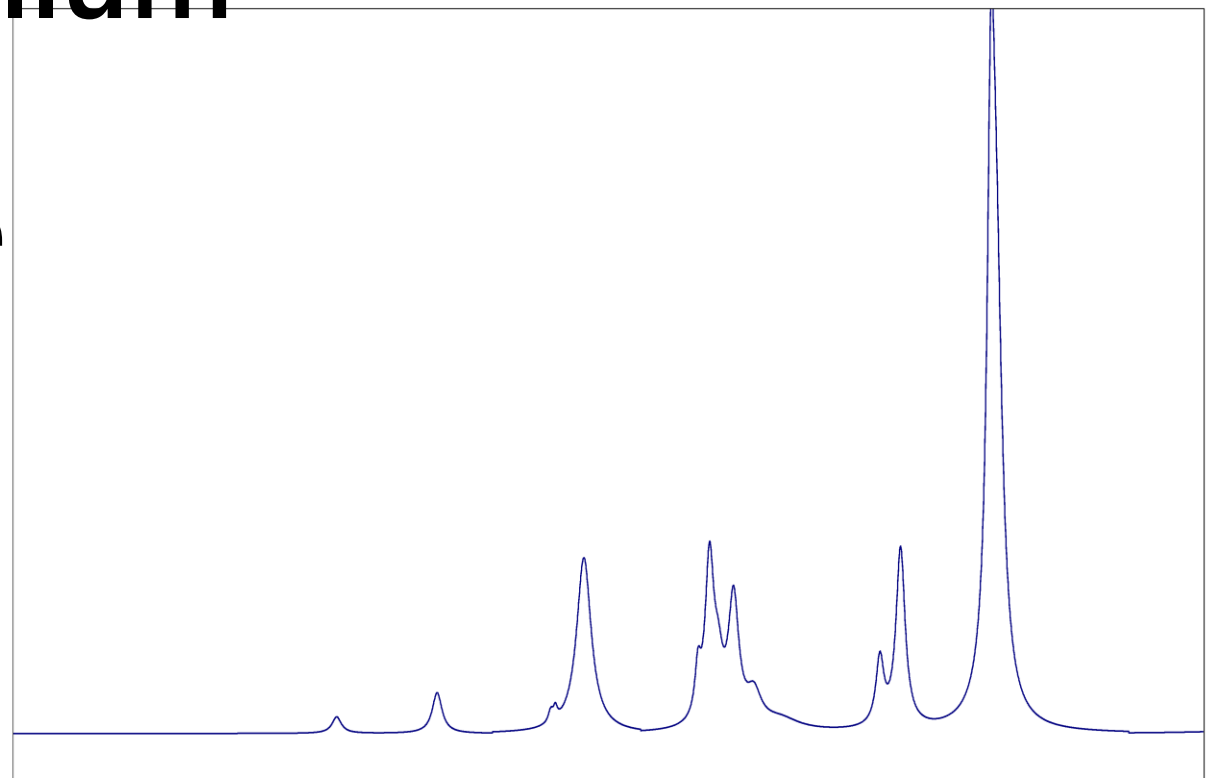
6.0 5.5 ppm

1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 -0.2 ppm

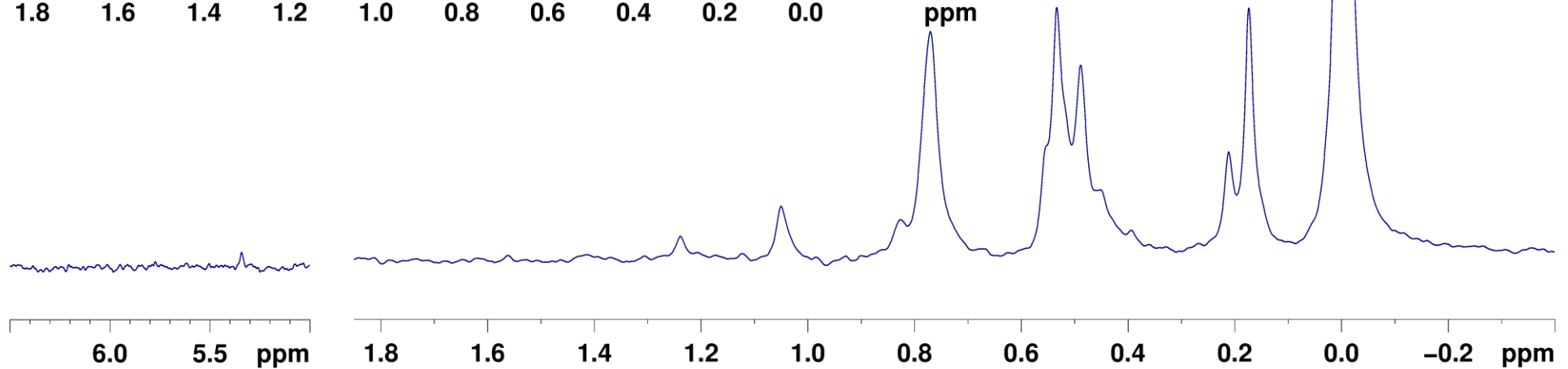
Cerebellum

F2N

Female



1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 ppm



6.0 5.5 ppm

1.8 1.6 1.4 1.2 1.0 0.8 0.6 0.4 0.2 0.0 -0.2 ppm

Degradation test

- F2N, Liver, NP-NC
 - 0h (red trace)
 - +48h (blue trace)

Liver
F2N
NP-NC
0h, +48h

