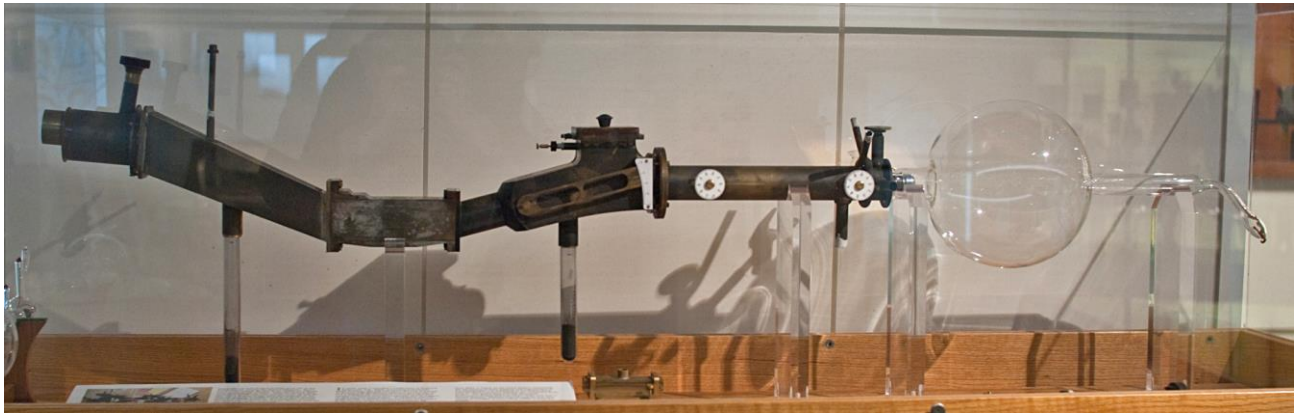


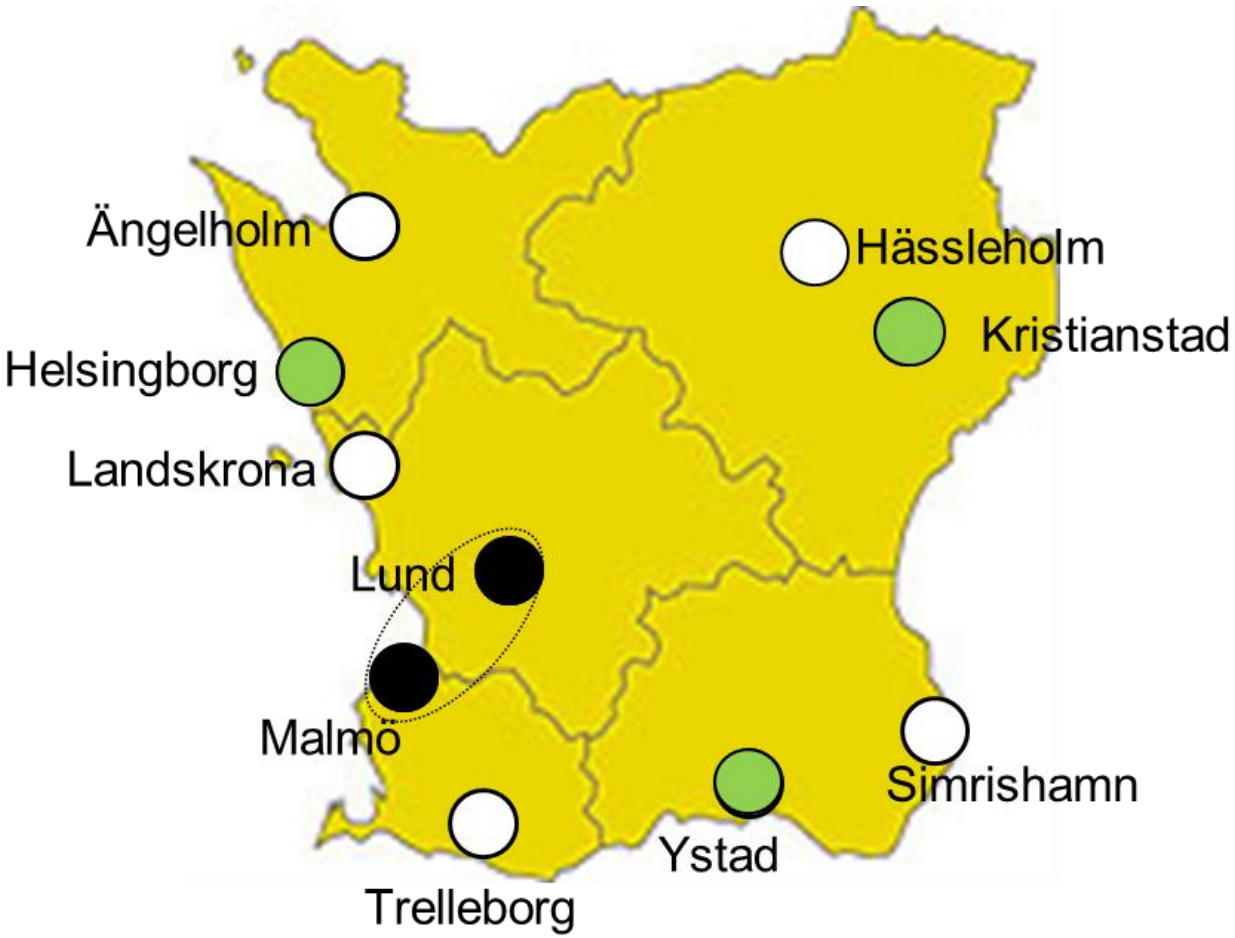
LC-MS Klinisk Kemi
Region Skåne

Anders Blomgren
Utbildningsdagar, Saltsjöbaden
8:e feb 2017

Innehåll

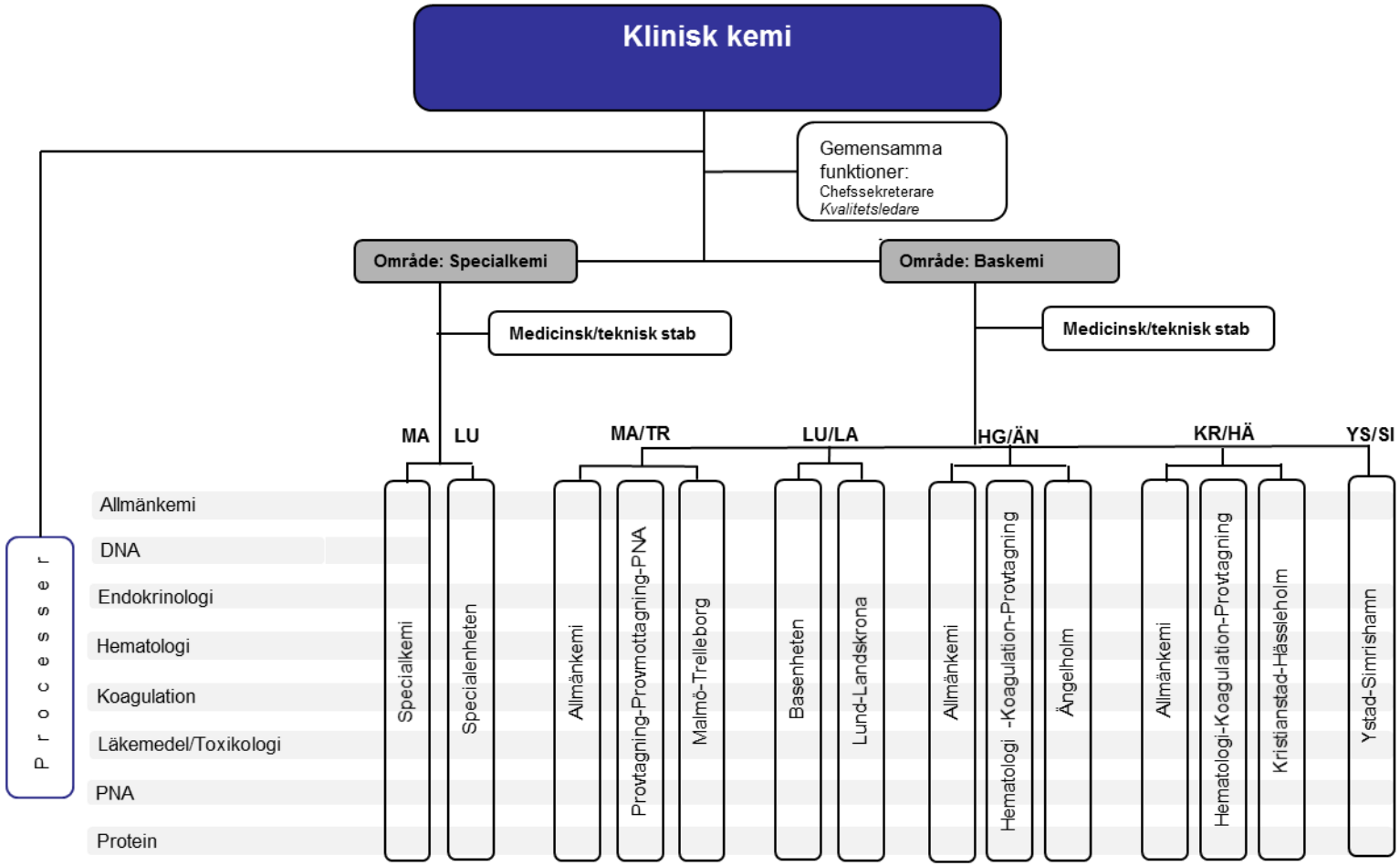
- Region Skåne, SUS, Klinisk Kemi
- LC-MS verksamheten
  - Lokaler/Instrumentering/Arbetssätt
  - Analyserna

Klinisk Kemi, Region Skåne



- Universitetssjukhus
- Akutsjukhus
- Närsjukhus

Klinisk Kemi, Region Skåne



Klinisk Kemi, Region Skåne

- LC-MS system på Klin Kem före 2015
  - 2 i Lund, 2 i Malmö och 1 i Helsingborg

- 2013 - Samlokalisering Masspektrometri
  - kritisk massa
  - samlad kompetensen
  - åldersavgångar
  - bättre utnyttjande av instrumenten

Ombyggnation – befintligt och nytt MS-lab

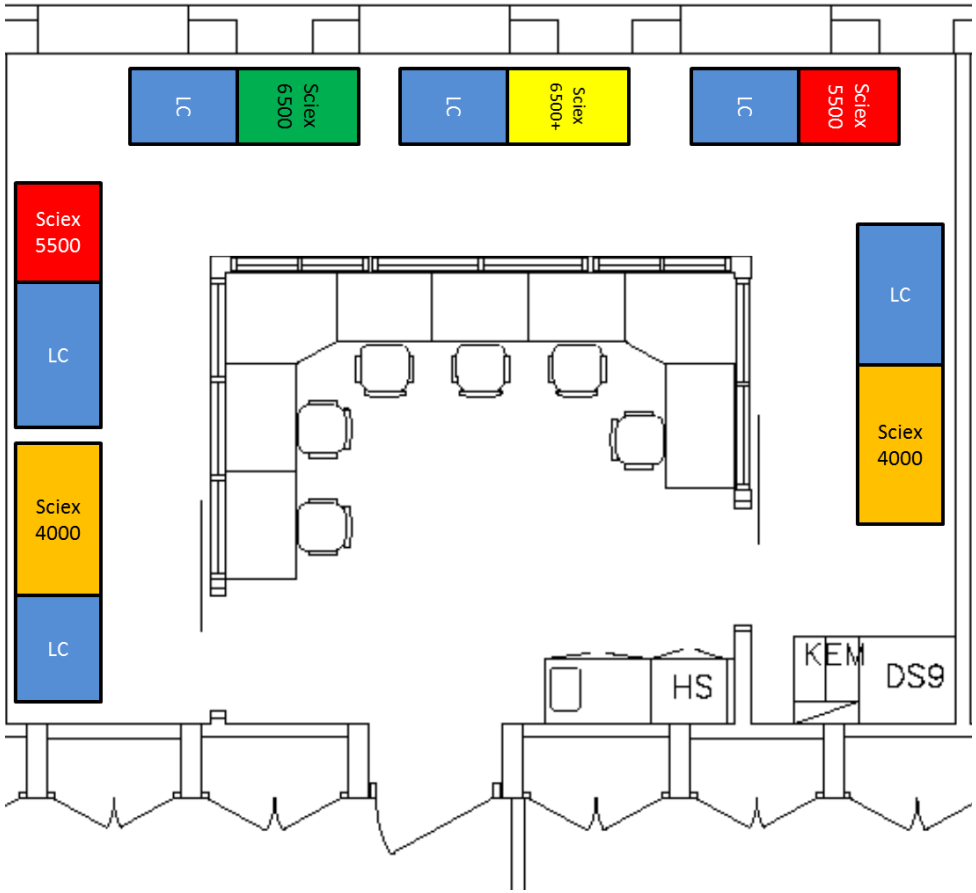
Sista systemet flyttat jan 2016

Ombyggnation MS lab

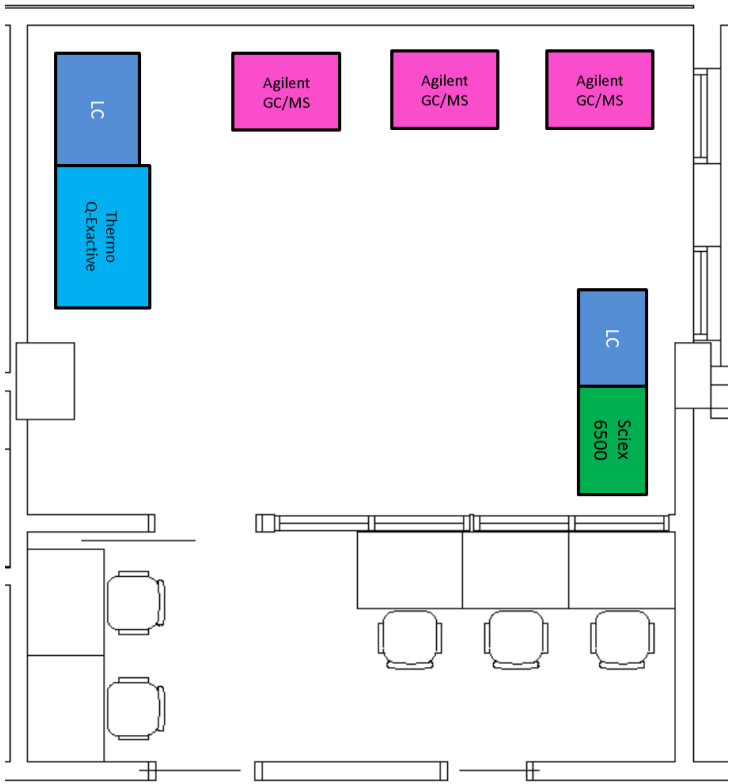
- Media
- Högt ljud
- Värme/Kyla/Drag
- Serviceåtkomst
- Visuell kontakt

Ombyggnation MS lab

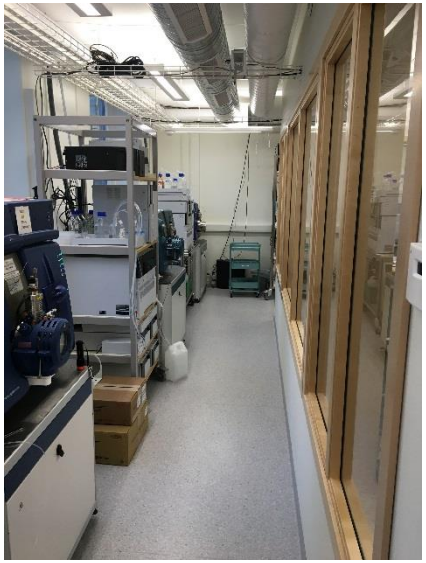
Nytt lab

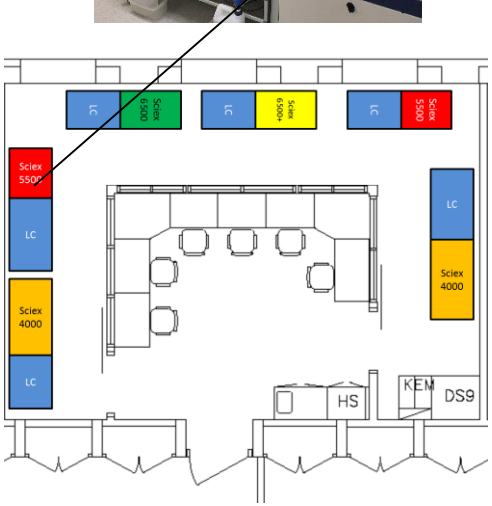


Ombyggt lab



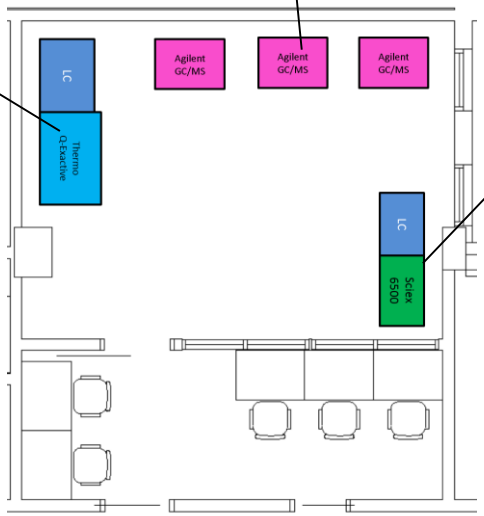
- Enhetligt (mjukvara, instrument)
- Tidsplan för utbyte



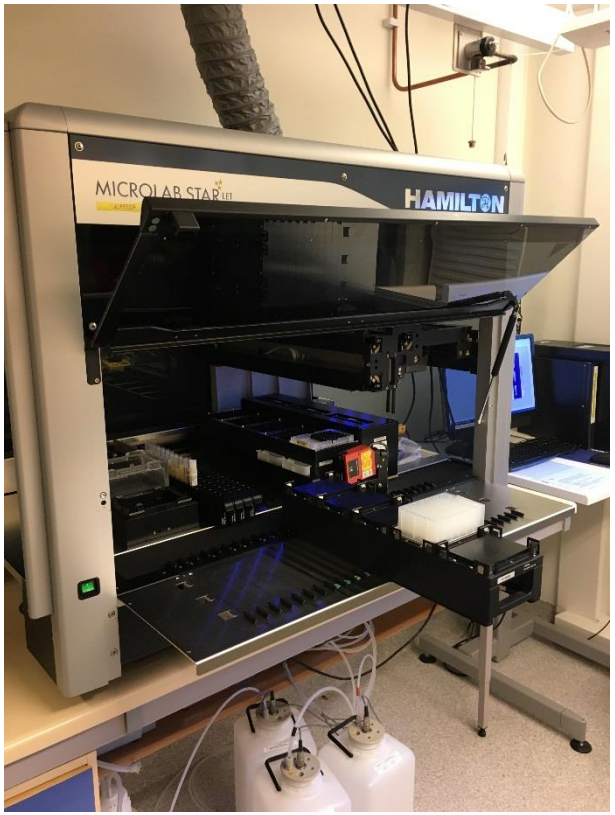

LC
Sciex 6500
LC
Sciex 6500+
LC
Sciex 5500
Sciex 5500
LC
Sciex 4000
LC
LC
Sciex 4000
HS
KEM
DS9

Thermo

GILENT 1


LC
Thermo Q Exactive
Agilent GC/MS
Agilent GC/MS
Agilent GC/MS
LC
Sciex 6500

Provupparbetning



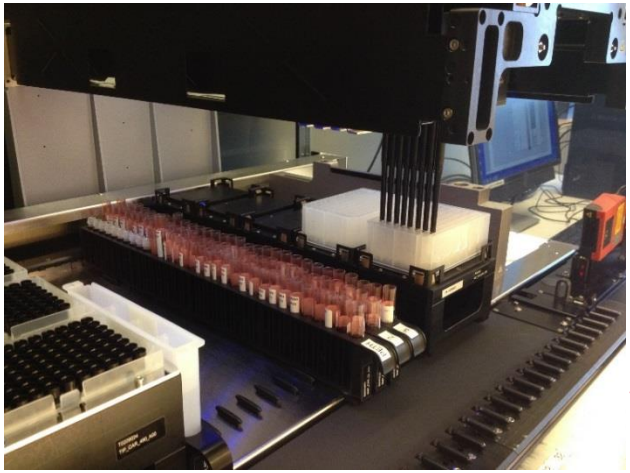
Provupparbetning

Robotar

- är snabba
- ger bra precision
- gör likadant varje gång
- blir inte uttråkade
- är enkla att reparera

Metoder

- proteinfällning så länge det går
- fällningsplatta
- SPE (3 robotar utrustade)
- (2D-LC)



Personal

Anders Blomgren

Therese Hansson

Kemister, 5 st

- Läkemedel
- Missbruk
- Endokrinologi
- Protein
- Robot (ny)

Benny Larsson

Per Bengtsson

Maria Fröjd

Analyserna

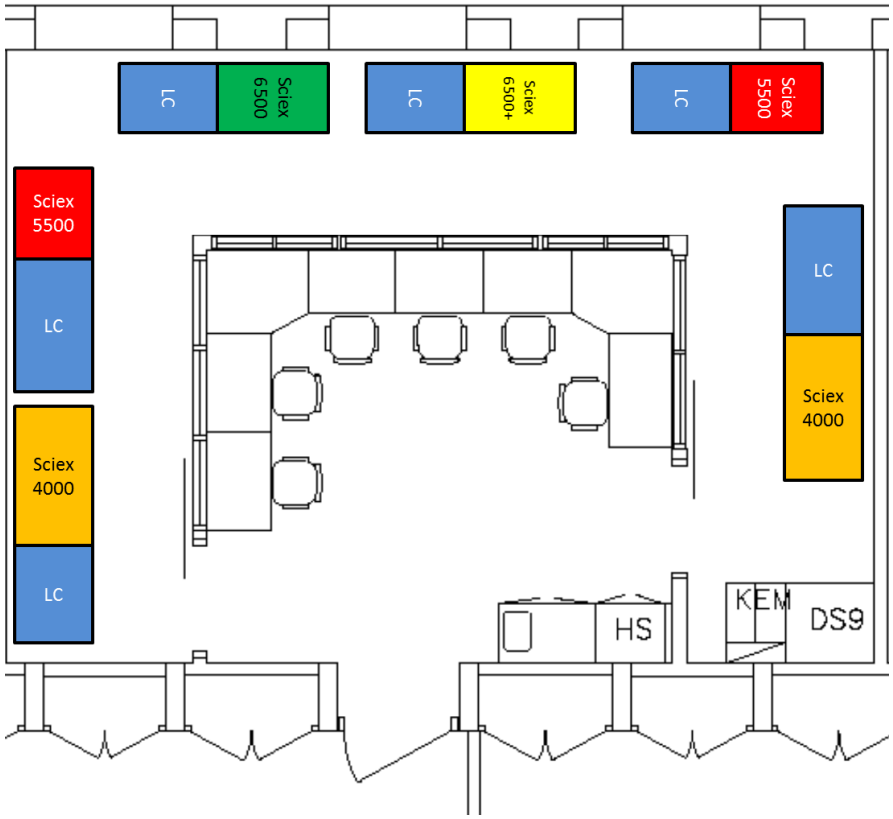
Utveckling
Utbildning

S-MMA
S-Hepcidin

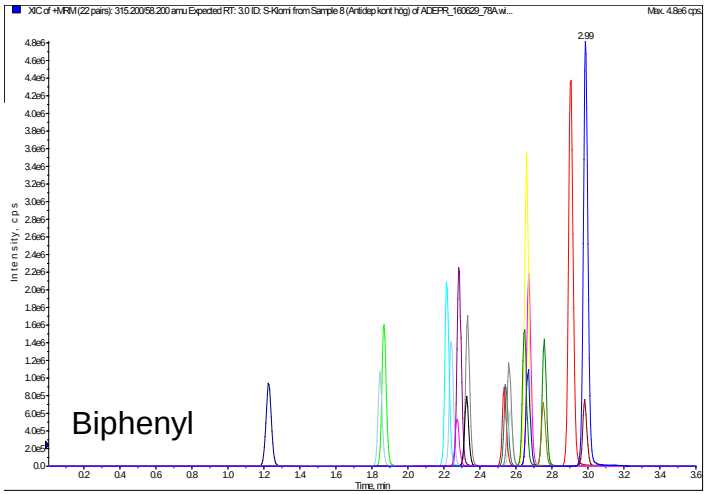
Läkemedel
U/P-Metoxykatekolaminer
U-Kortisol

Steroider
(Östradiol
Androstendion
Testosteron
17OH-Progesteron)

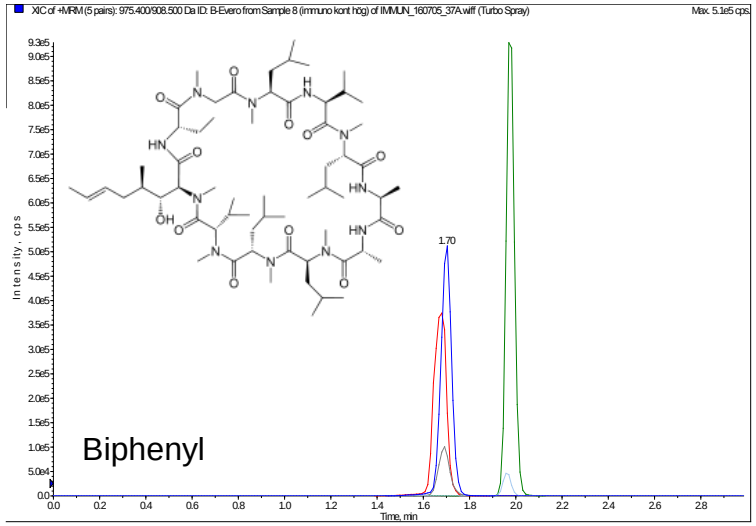
S-Vit D



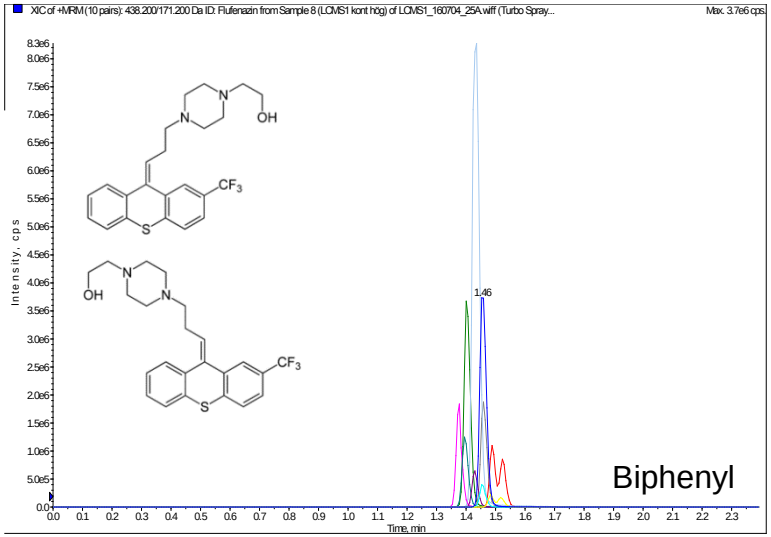
B-PEth
S-Metformin



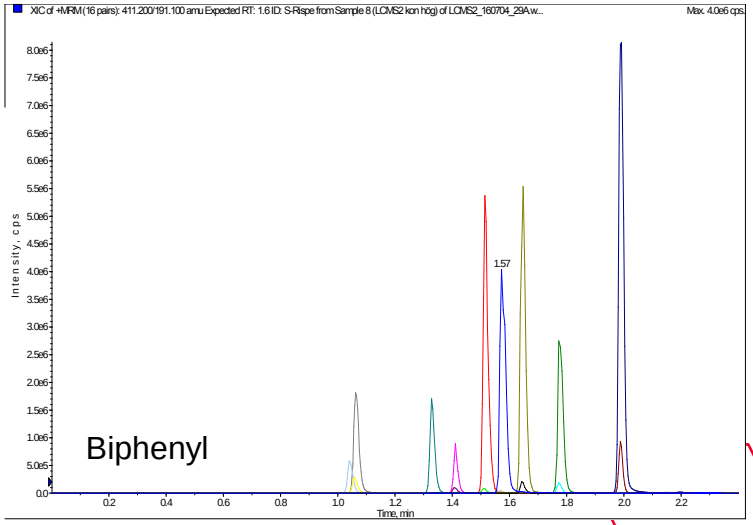
Antidepressiva



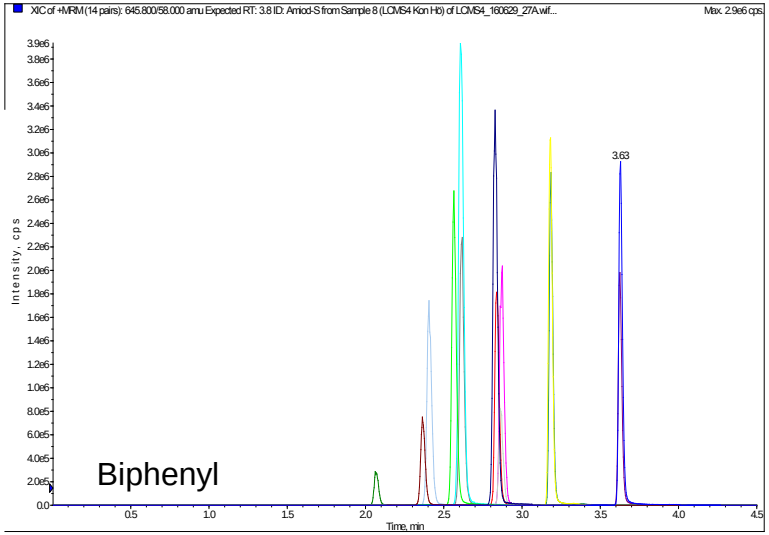
Immunosuppressiva



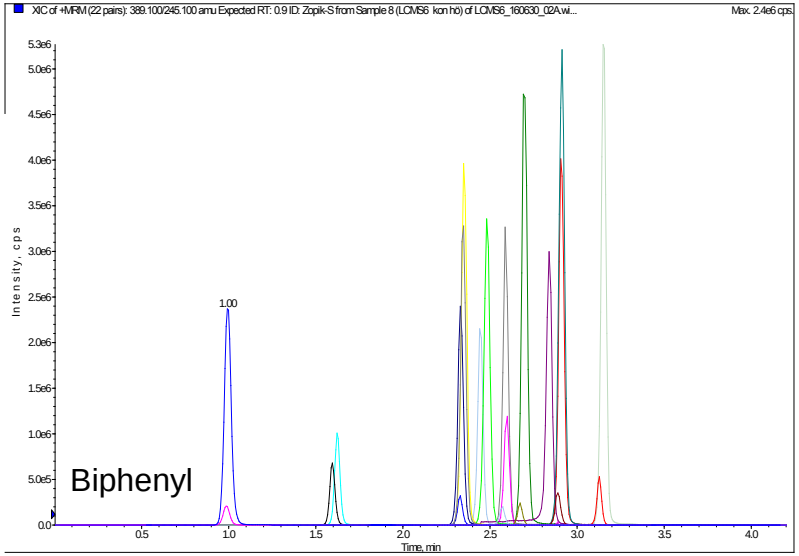
Neuroleptika 1



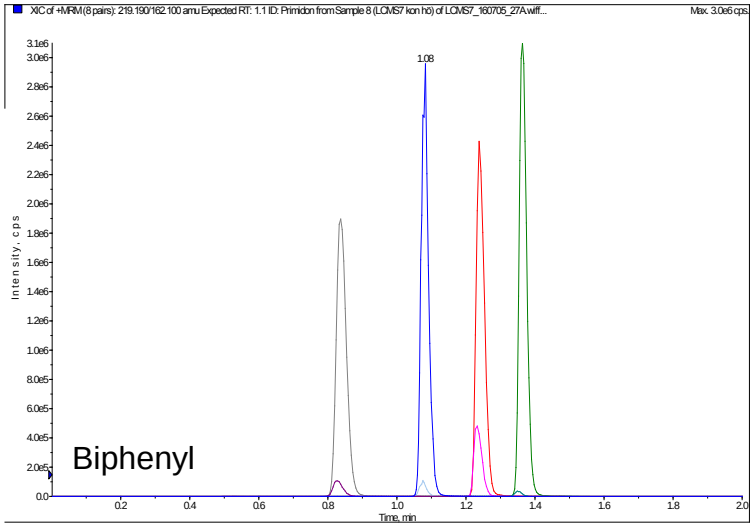
Neuroleptika 2



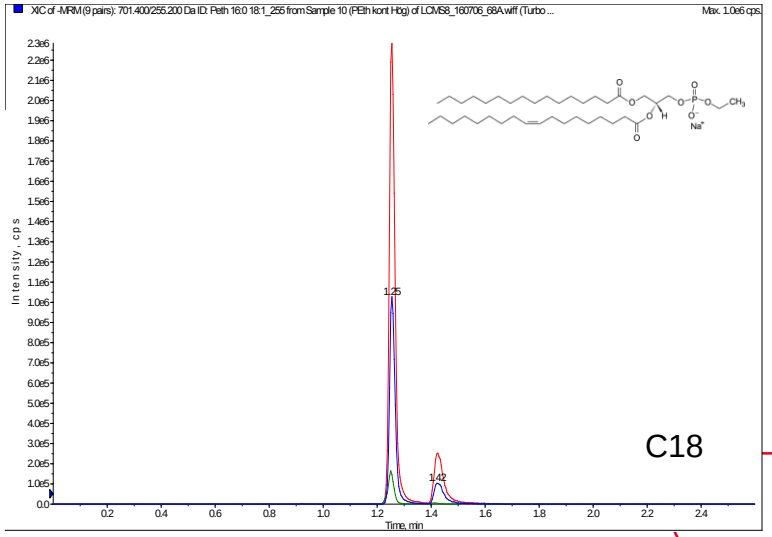
Antiarytmika



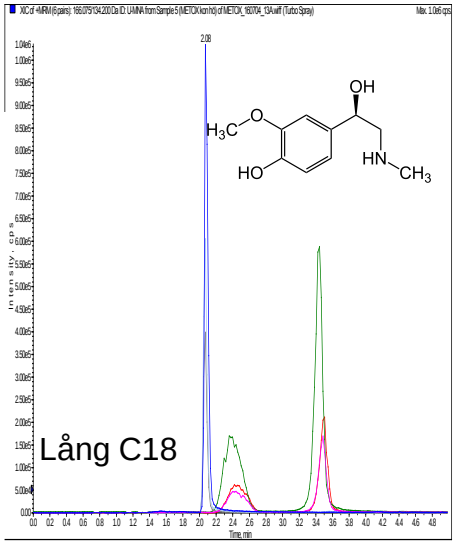
Bensodiazipiner



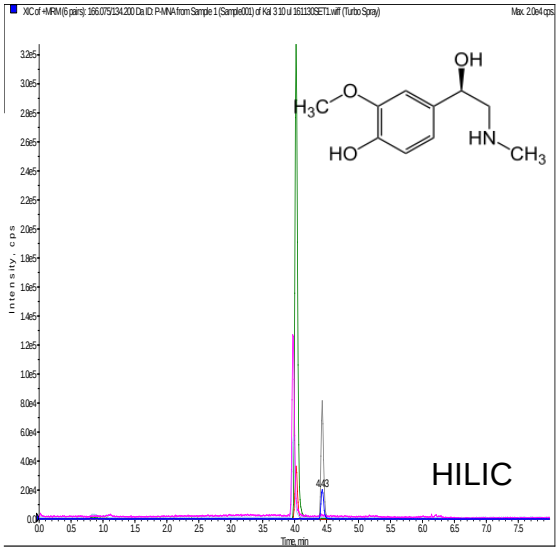
Antiepileptika



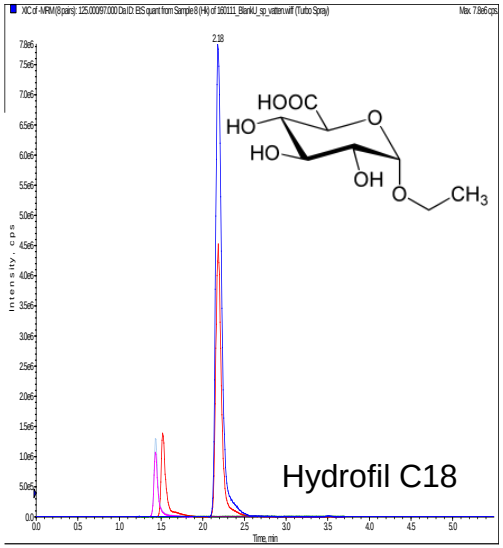
B-PEth 16:0/18:1



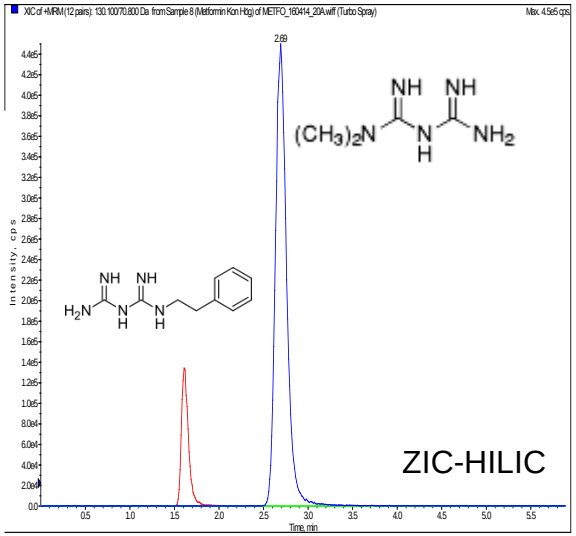
U-Metoxikatekolaminer



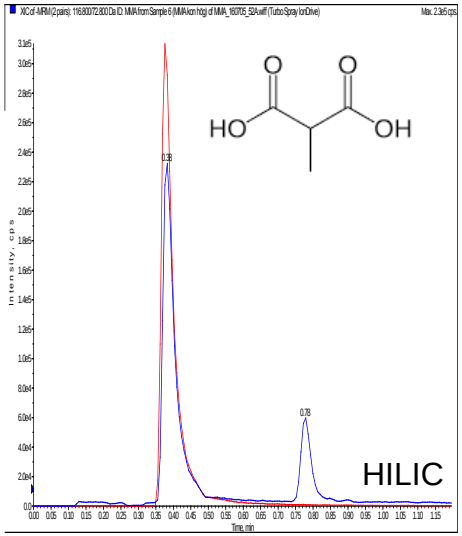
P-Metoxikatekolaminer



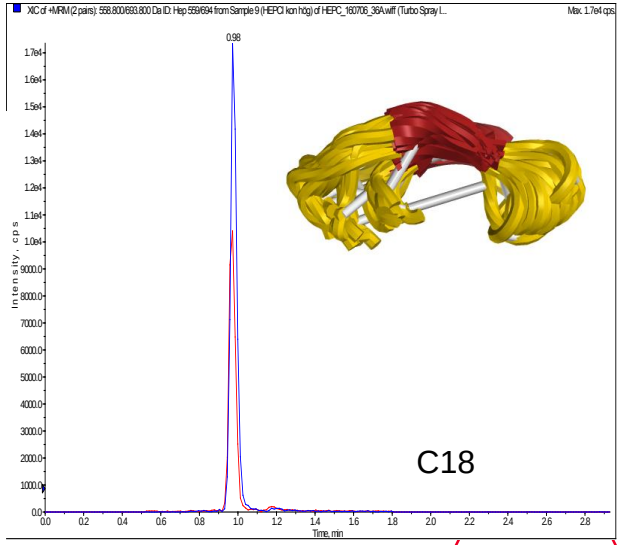
EtG/EtS



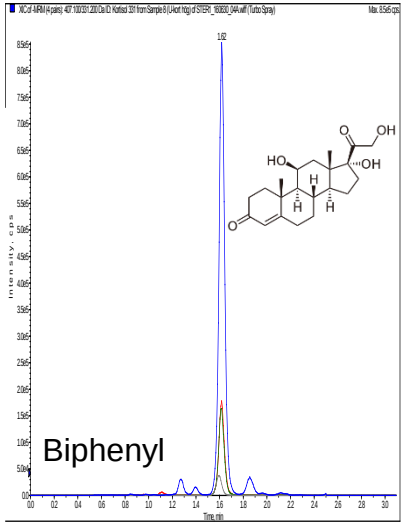
Metformin



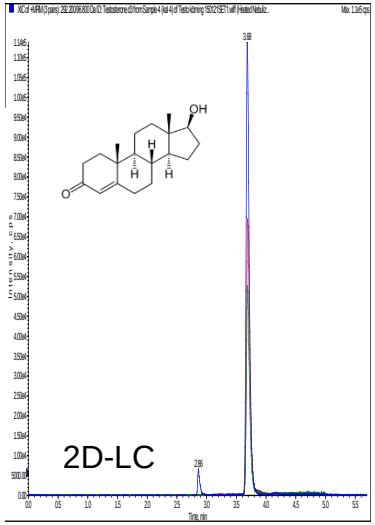
MMA



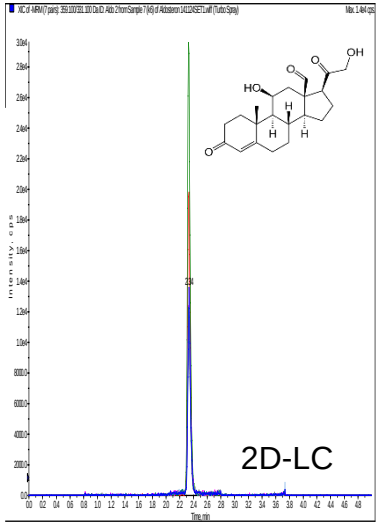
Hepcidin



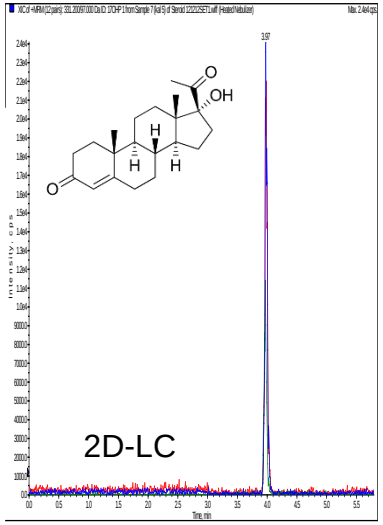
U-kortisol



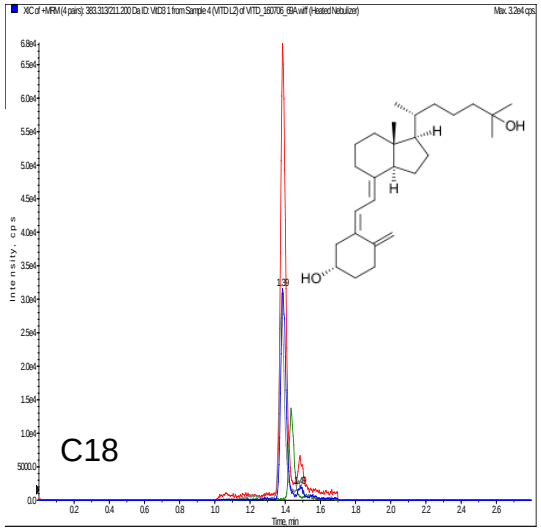
S-Testosteron*



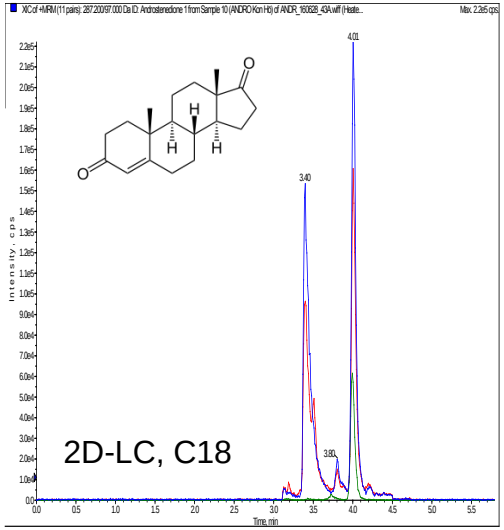
S-Aldosteron*



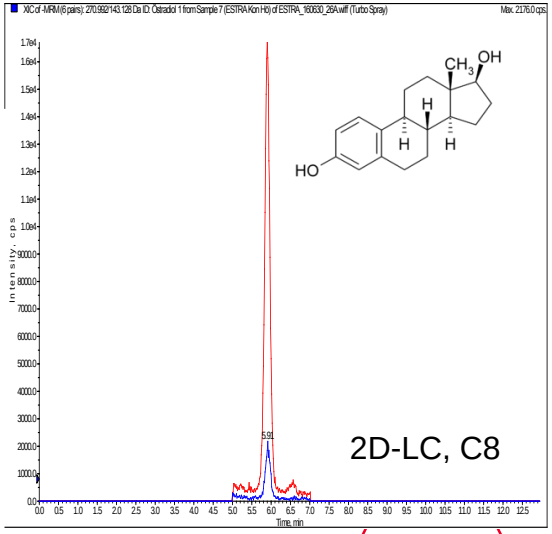
S-17-HO-Progesteron*



S-Vitamin D



S-Androstendion



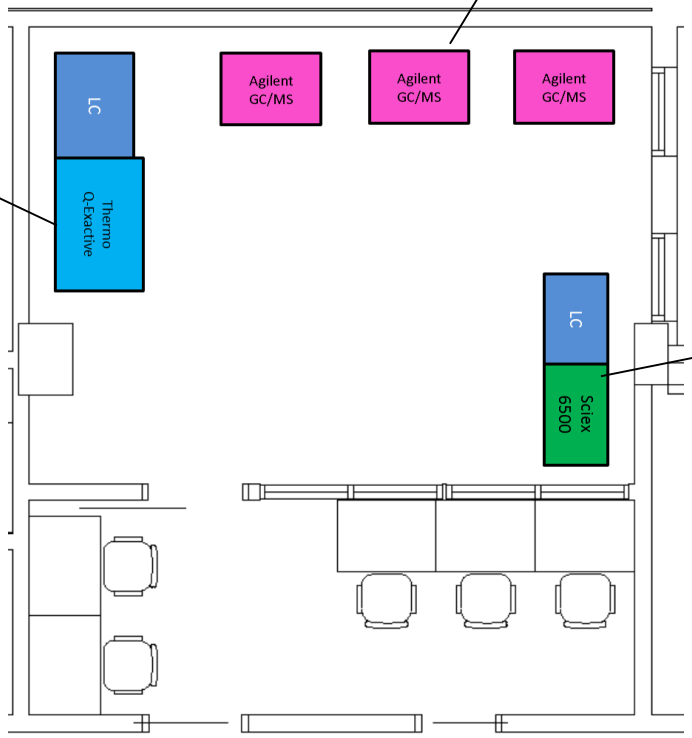
S-Östradiol

* Inte tagen i bruk än

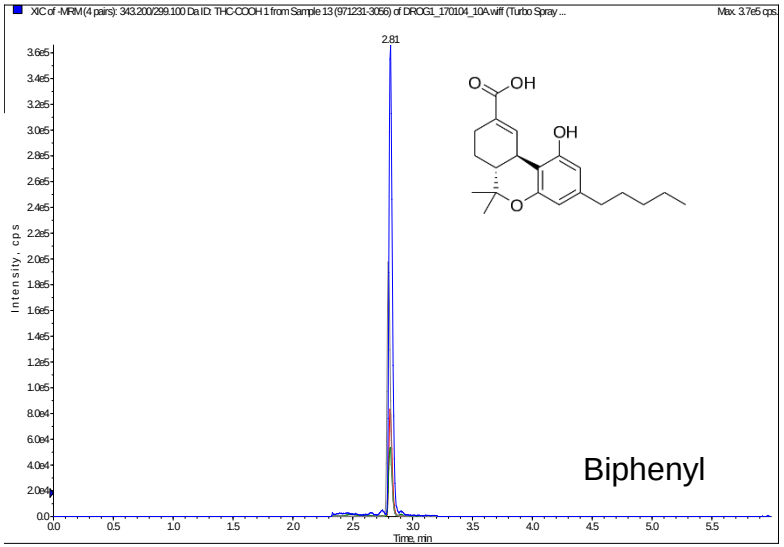
Analyserna

Drugs of abuse
Verifiering

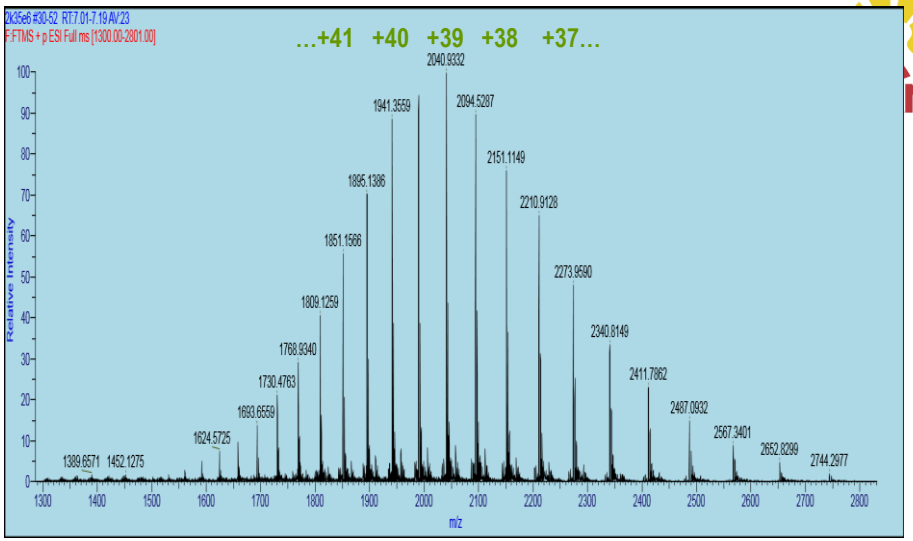
S-Transferrin proteoformer
Apo1-Lipoprotein
α1-antitrypsin
Fria lätta kedjor



Drugs of abuse
Verifiering
(Kannabinoider)

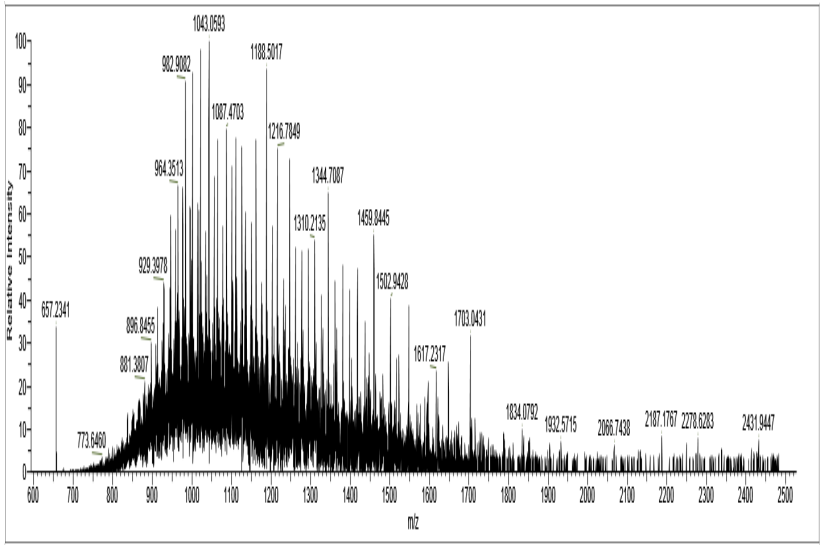


Kannabinoider (THC-COOH)

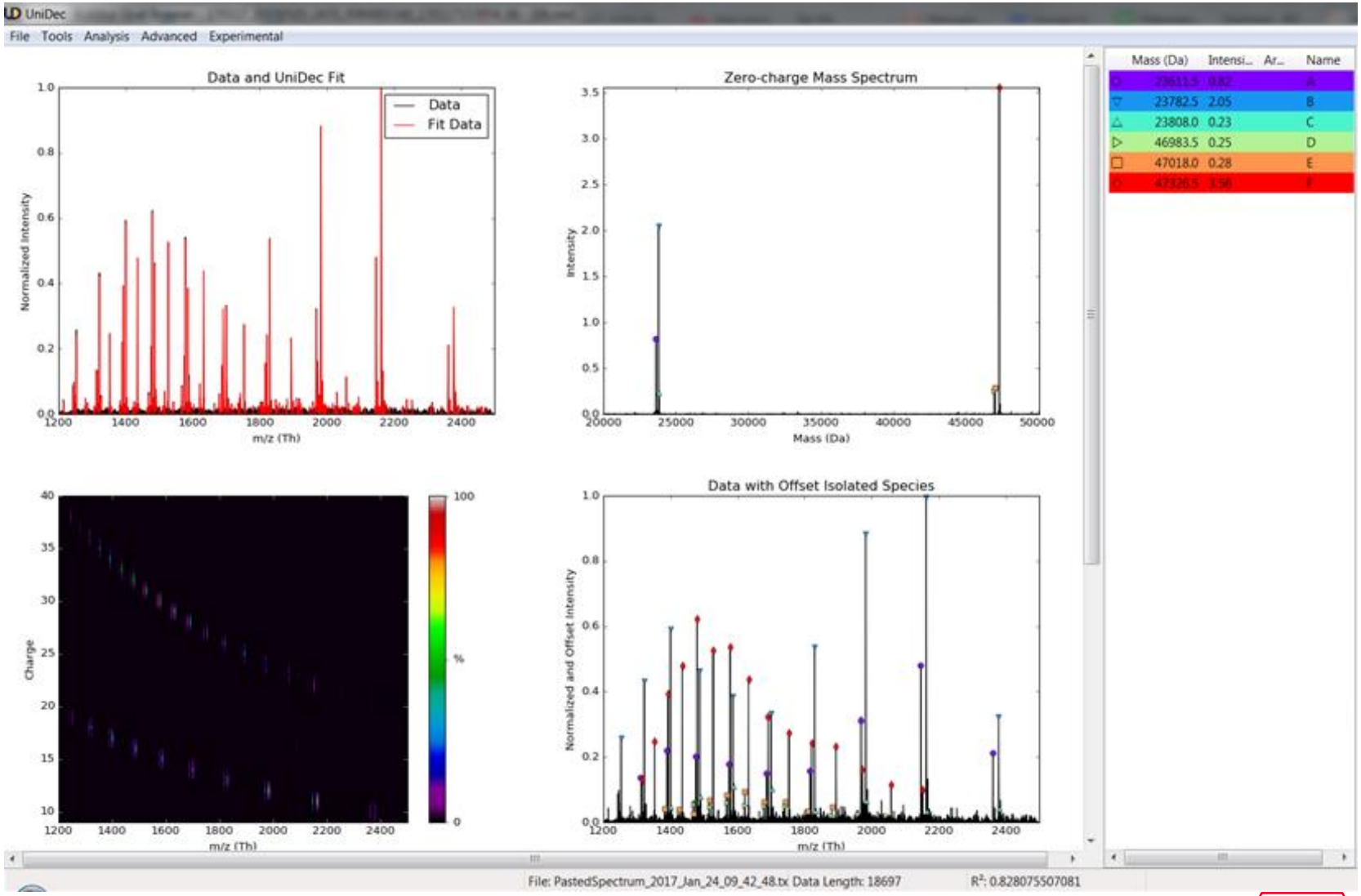


S-Transferrin proteoformer

(2D-LC, affinitet & C4)



α-1-antitrypsin (2D-LC, affinitet & C4)



Fria lätta kedjor (2D-LC, affinitet & C4)

Problem / Hot

- **Personal**
  - Åldersavgångar
  - Antal
- **IT**
  - Föråldrat
  - Remisser
  - Resurser

Tack!