

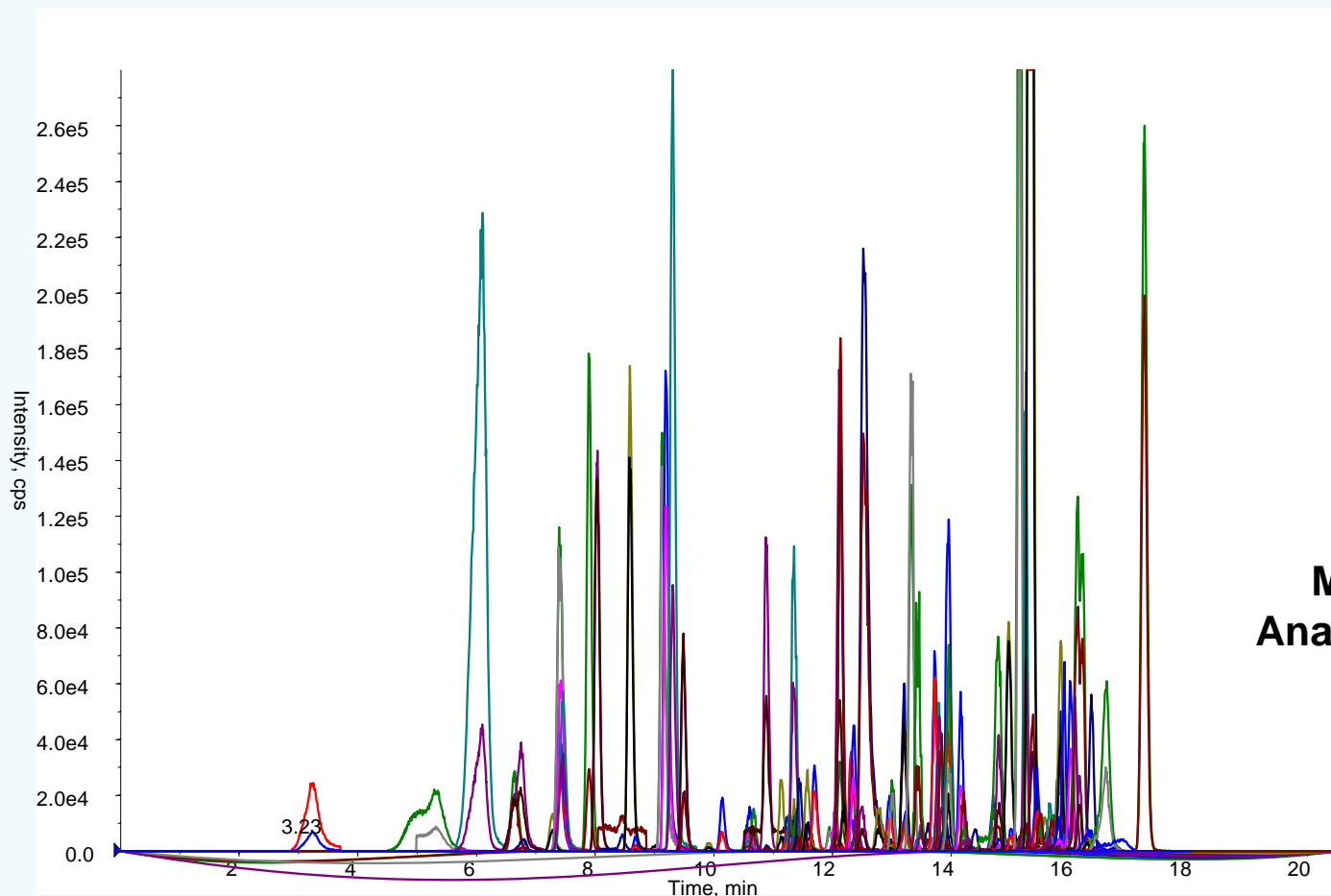
Universität für Bodenkultur Wien
Department für Agrarbiotechnologie,
IFA-Tulln

Round Table Discussion:

SUMMARY of Session 4:

Advanced technologies to reduce and detect
toxigenic fungi and mycotoxins

186 fungal and bacterial metabolites: Merged ESI (+) Scheduled SRM

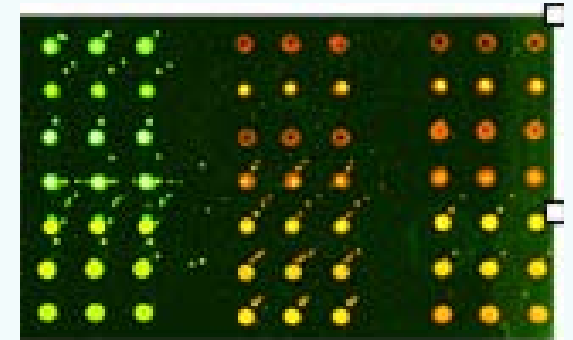


M.Sulyok et al.,
Anal. Bioanal. Chem.
(in press)

SRM-LC-MS/MS:
For quantification of known analytes (mycotoxins)
at low concentrations

Emerging (rapid) technologies

- **Molecularly Imprinted Polymers**
- **Infrared Spectroscopic techniques (MIR-ATR, NIT)**
- **Fluorescence Polarisation**
- **SPR Biosensors**
- **Protein Microarrays**



Analytics and Reduction

- Accurate analytical data for info on background levels in food and feed for exposure assessment
- Measure extent and success of reduction
- Multitoxin MS-based methods to assess
 - overall contamination
 - Screen for degradation-, transformation and conjugation products
- Advanced MS tools (e.g. HR-LC-MS/MS) for characterisation and metabolomics

Summary of Discussion

- Analysis should be fit for purpose: Routine analysis vs fundamental research
- TLC: Still useful, room for advanced techniques
- More focus on detection of fungi and bioassays – could reduce the number of mycotoxins to be monitored by chemical analysis
- PCR as possible tool for predicting infections and contaminations (Correlation DNA – mycotoxin ?)
- **Mycotoxin analysis 2020 ?**