

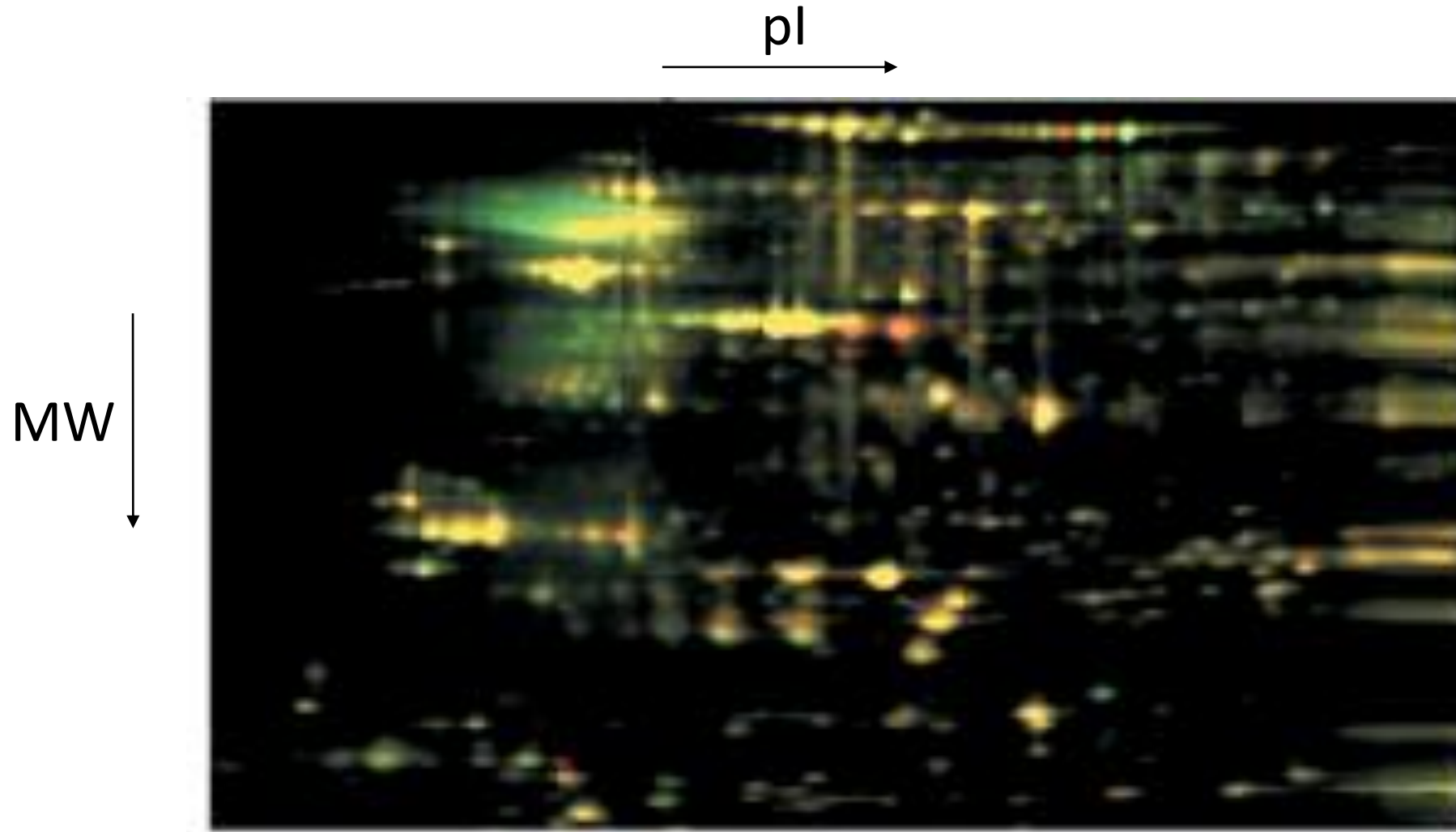
The Proteomics Core

Proteomics Facilitators

Instrumentation

- 2-dimensional gel running and scanning equipment
- Shimadzu Axima-CFR Plus MALDI-TOF
- Thermo Fisher TSQ Vantage Triple Quadruple (1)
 - Agilent 1200 Series HPLC
- Thermo Fisher TSQ Vantage Triple Quadruple (2)
 - ekspert nanoLC

2D-DIGE (guinea-pig)



MALDI-TOF

- Work horse mass spec
- Fast, robust, and fairly easy
- Good for gel piece analysis with abundant proteins
- Not very sensitive
- Not attached to LC

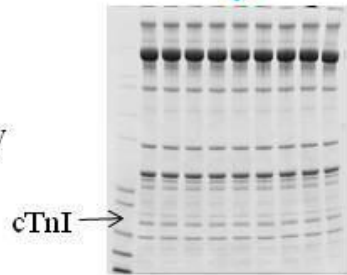
Triple Quads

- Excellent mass accuracy for targeted mass spectrometry
- Connected to “standard” LC and “nanoLC”
- Excellent for SRM/MRM assays
- Not good for discovery

Step 1
Myofibril
purification



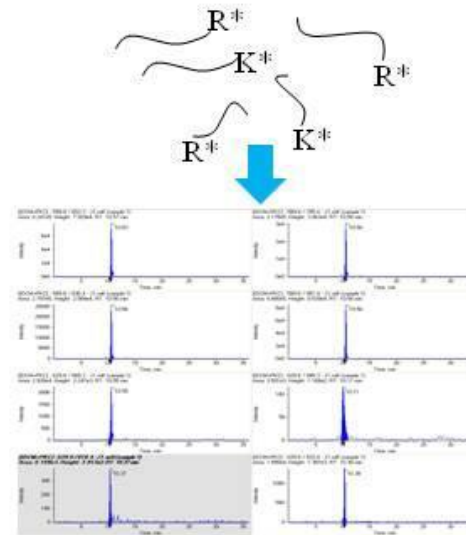
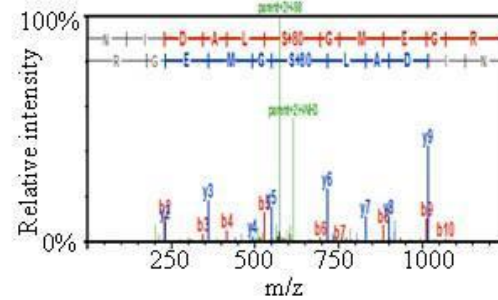
Protein preparation by
NuPAGE 4-12%
Bis-Tris gel



Step 3
Trypsin digest

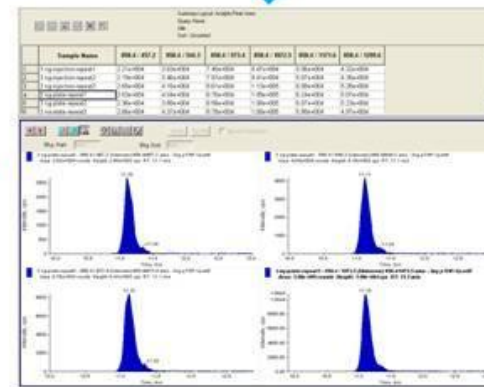


Step 4
LC-MS/MS

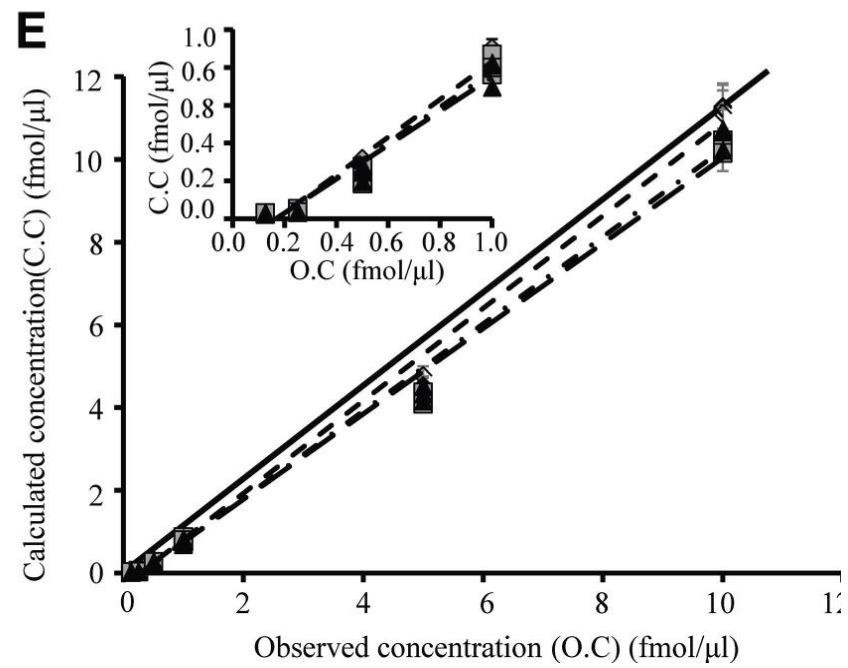
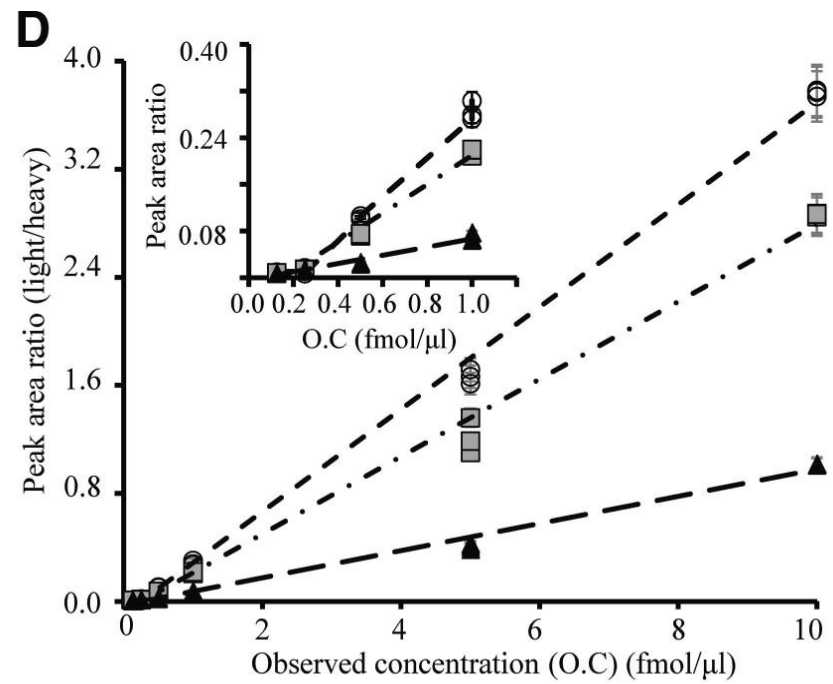


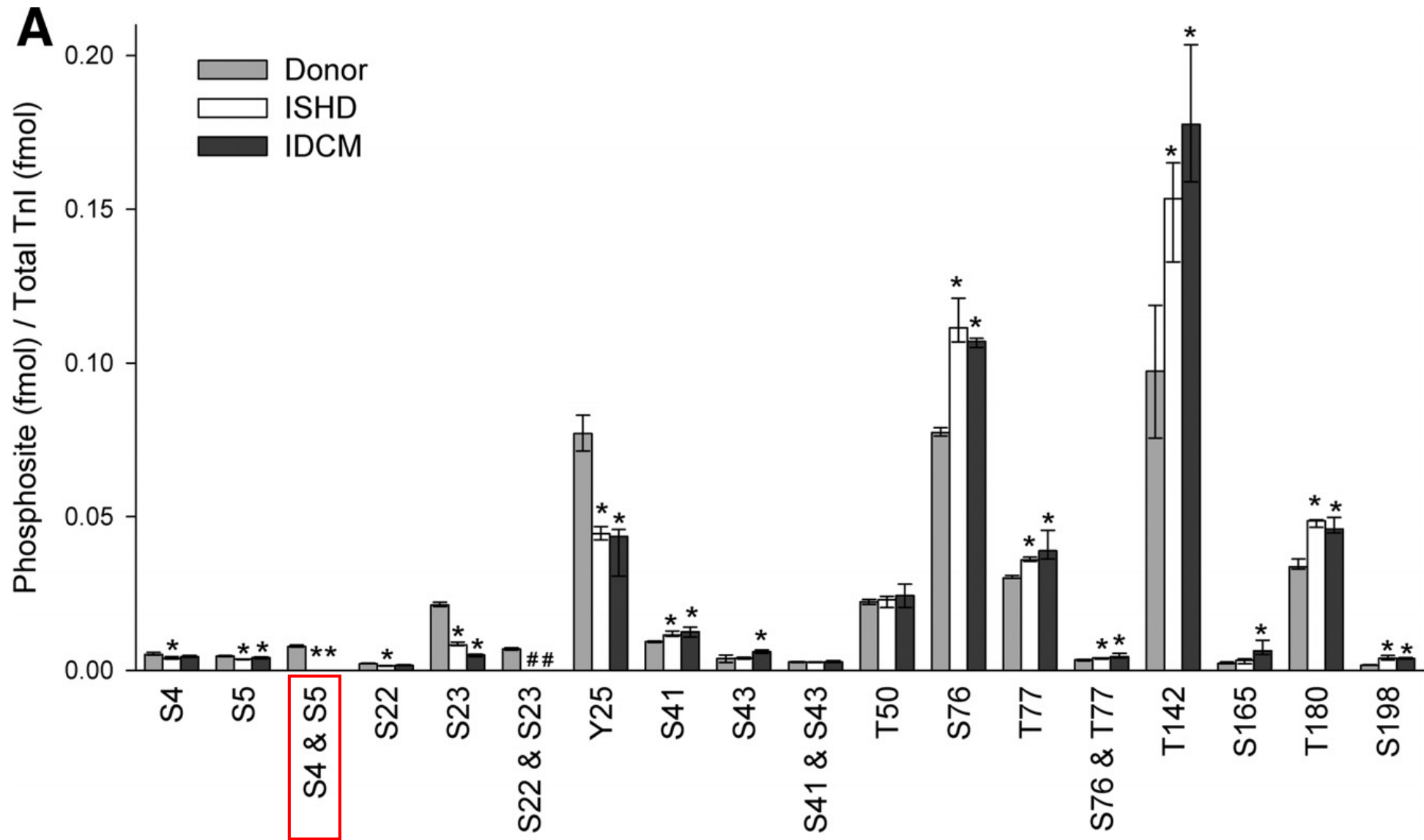
Step 5
Synthesis of labeled
standard peptides
($^{13}\text{C}_6, ^{15}\text{N}_4 = \text{R}^*$
 $^{13}\text{C}_6, ^{15}\text{N}_2 = \text{K}^*$)

Step 6
MS instrument
optimization for
300 MRM transitions



Step 7
Data Analysis
Quantification





Please contact me if interested

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