

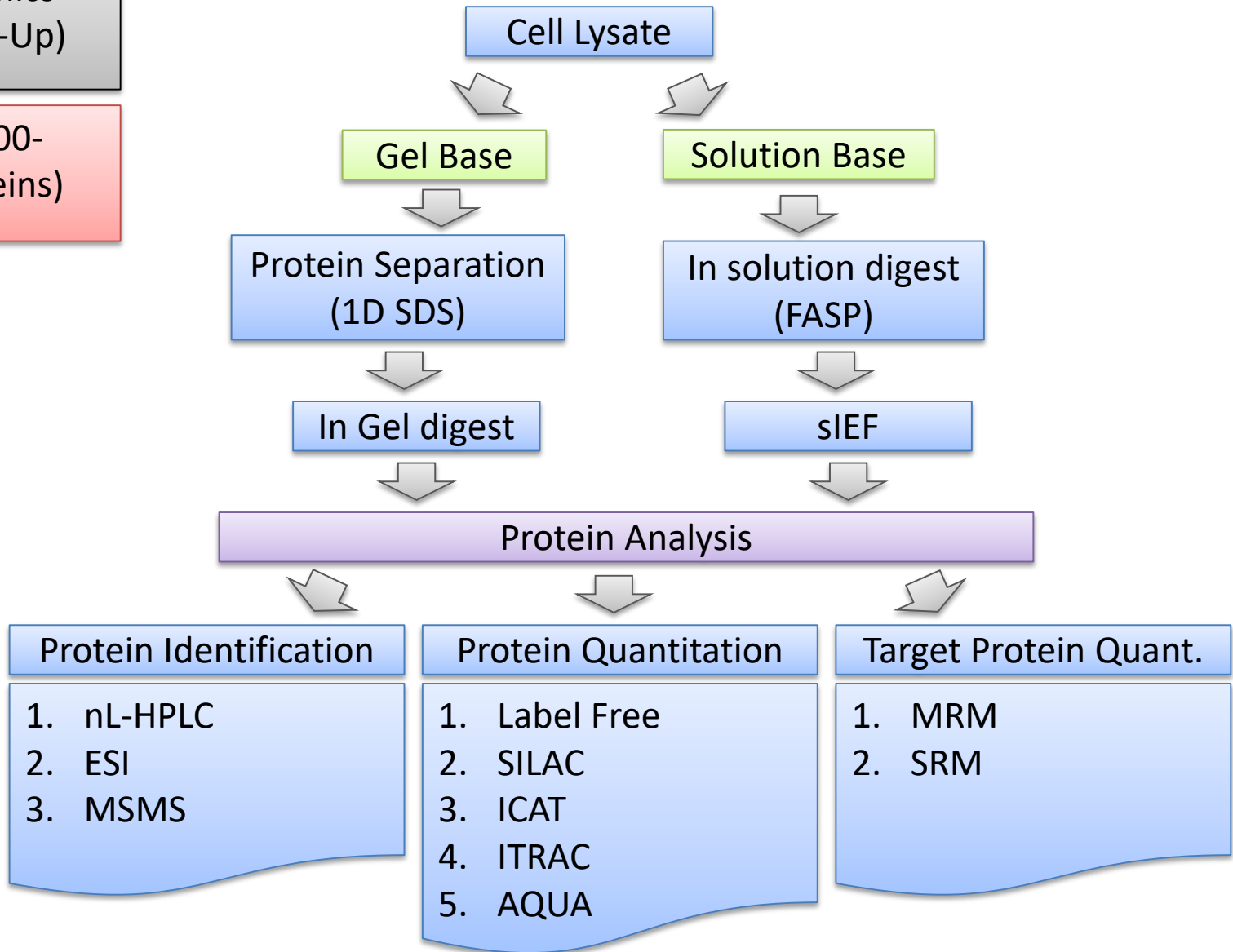
GRC Mass Core Facility

GRC mass facility

| Auto sampler | HPLC | Electrospray source | Mass spectrometer | software |
|---|--|--|--|--|
| 1.LC packing Famos 2.HTS PAL 3.Thermo Accela 4.Waters Acquity UPLC | 1. Thermo Accela 2. Agilent 1100,1200 UPLC 3. Waters Acquity UPLC 4. Proxeon EASY-nLC Colum 1. C4 2. C18 3. HILIC 4. SCX 5. PGC 6. BEH amide | 1. Advision TriVersa NanoMate ESI chip 2. New objective Picoview Nanospray 3. FAIMS 4. HESI 5. ESI | Thermo 1. LTQ XL 2. Velos pro 3. LTQ orbitrap XL ETD 4. LTQ FT ultra 5. TRACE GC ultra Polaris Q Bruker 1. Ultraflex II TOF/TOF 2. Bruker Bio-TOF III Waters 1. Cyclic IMS TOF | Termo Proteome Discoverer 1.3 ProSightPC 3.0 Mascot 2.2 Mass Frontier 5.0 Bruker BioTools 3.1 ClinProTools 2.0 Genotools 2.0 Polytools 1.0 Free MaxQuant Perseus GlycoWorkbench GlySpy Glyco-Peakfinder . . |

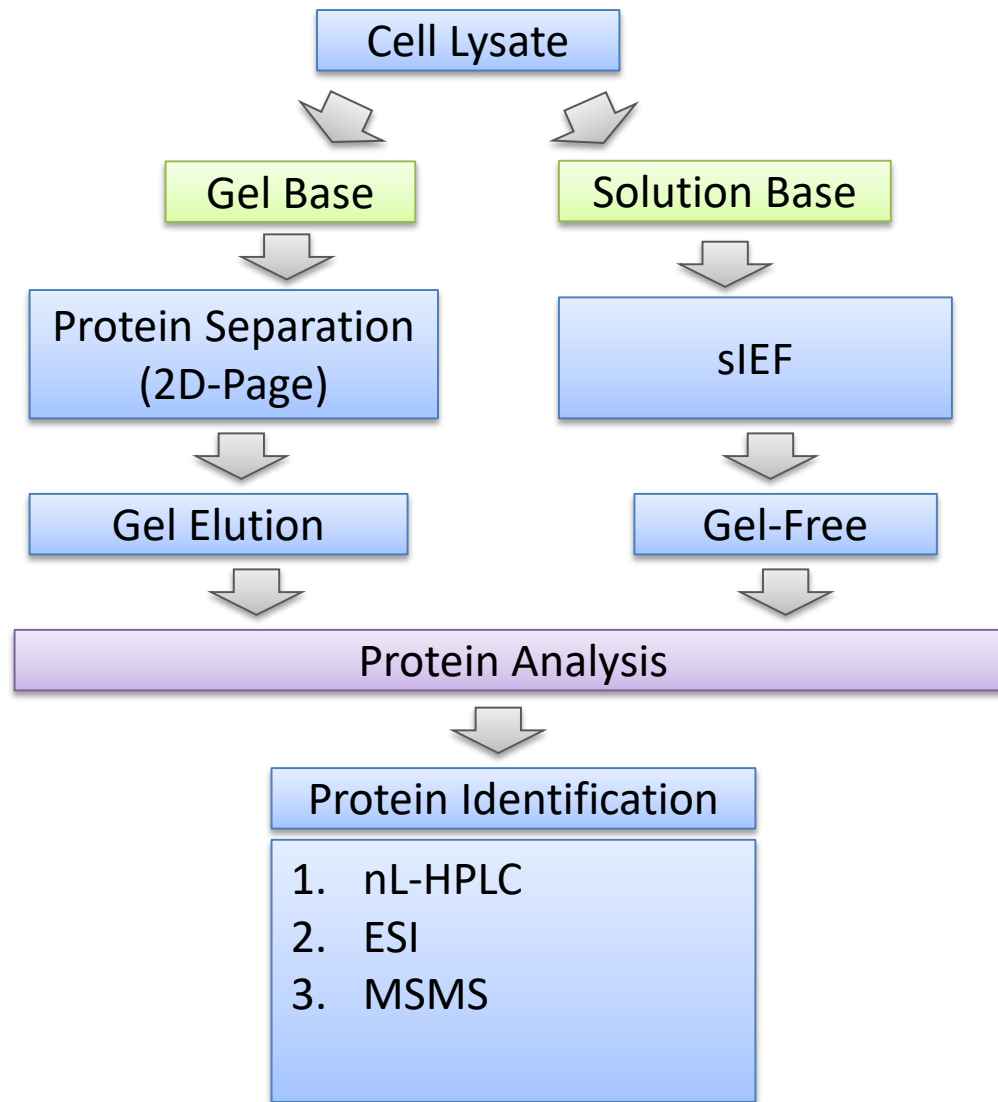
Proteomics
(Bottom-Up)

100ug (1000-
5000 proteins)



Proteomics
(Top-Down)

1mg (100-1000
proteins)



Glycomics

100ug (5-100
glycans)

C18 Column
(80% ACN
Elution)

β -Elimination

Cell Lysate

In GEL / Solution
Digest

PNGaseF
release

O-Link

C18 Column
(5% ACN Flow
Through)

PGC De-salt
Column

Permethylation

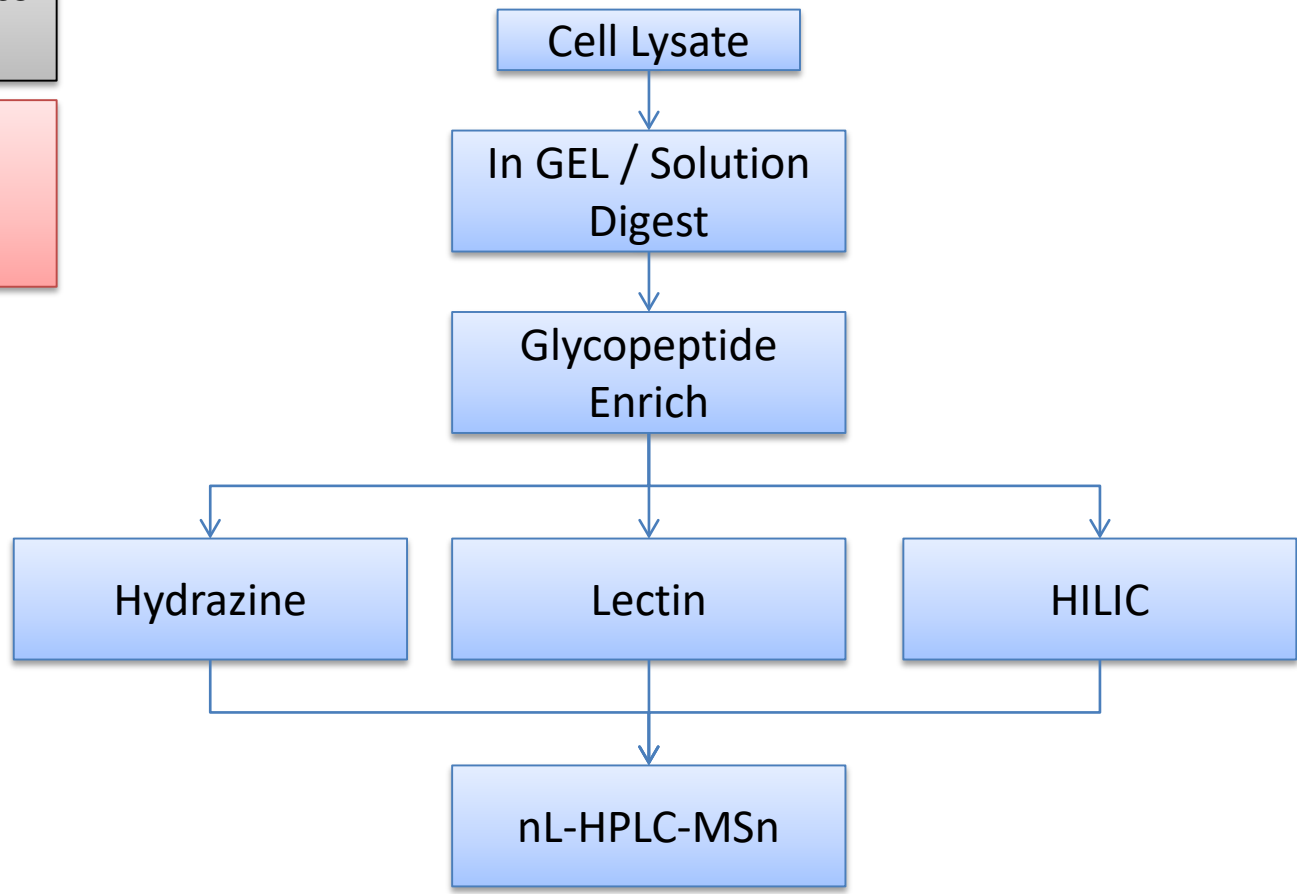
LC-ESI-MS/MS
(PGC)

MALDI-MS/MS

LC-ESI-MS/MS
(C18)

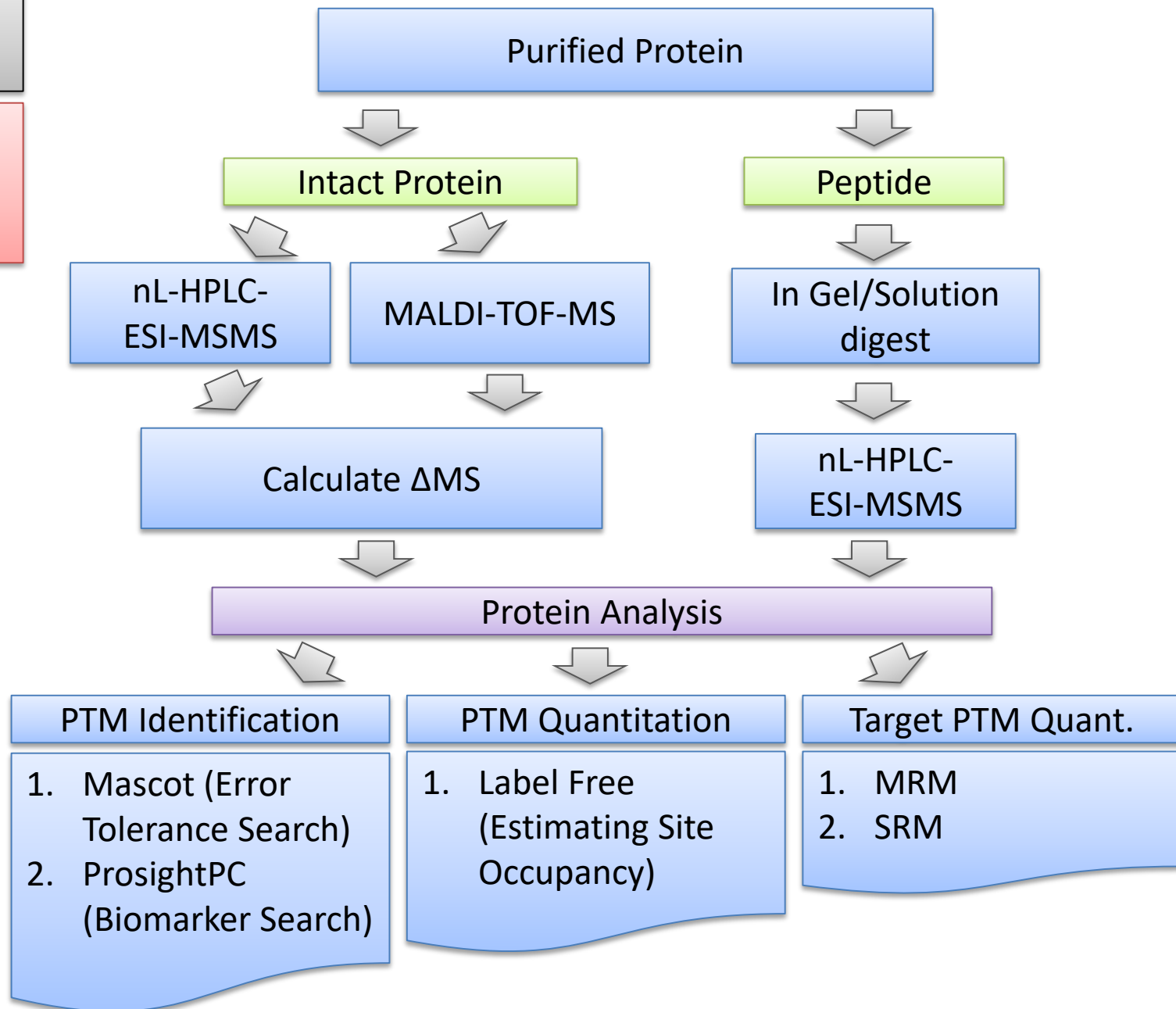
Glycoproteomics

100ug (50-300 glycopeptides)



Purified Protein
Analysis

500fmole
(sequence
coverage > 60%)



PTM Identification

1. Mascot (Error Tolerance Search)
2. ProSightPC (Biomarker Search)

PTM Quantitation

1. Label Free (Estimating Site Occupancy)

Target PTM Quant.

1. MRM
2. SRM

