## Changes to the proof

- Q1 All author names and affiliations are correct.
- Q2 Please use the following text instead of the current text:

Spectral networks algorithms transform the paradigm for analysis of tandem mass spectra by finding and jointly interpreting spectra from related molecules, regardless of the structure or class of molecule.

Q3 – A reference to Figure 3 should be added on page 7, line 7, left-hand column:

"The NRP-Assembly approach assembles MS<sup>4</sup>/MS<sup>5</sup> spectra, similarly to what was described above for Shotgun Protein Sequencing, and further integrates the resulting contig with the MS<sup>3</sup> spectrum and all non-assembled spectra (Figure 3)."

Q4 - Reference 29 was updated to include its DOI:

"C. Y. Yen, S. Huel, H. G. Ahn and W. M. Old, *Mol Cell Proteomics*, 2011, **10**, 10.1074/mcp.M111.007666"

Q5 – The author surname for the 6<sup>th</sup> author in reference 32 is as follows:

"A. Bora, S. P. Annangudi, L. J. Millet, S. S. Rubakhin, A. J. Forbes, N. L. Kelleher, M. U. Gillette and J. V. Sweedler, *J Proteome Res*, 2008, **7**, 4992-5003"

Q6, Q7 – References should be updates as follows:

1. Reference 51 was updated to include the full list of author names:

"N. Bandeira, V. Pham, P. Pevzner, D. Arnott and J. Lill, *Nat Biotechnol*, 2008, **26**, 1336-1338"

2. Reference 52 was updated to include the full list of author names:

"S. Na, N. Bandeira and E. Paek, *Mol Cell Proteomics*, 2011, **11**, 10.1074/mcp.M111.010199."

- 3. Reference 78 was updated to include the journal. No DOI is currently available since this paper is under review:
  - "A. Guthals, K. Clauser and N. Bandeira, Mol Cell Proteomics, 2012, (submitted)."
- 4. Reference 101 was updated to include the DOI:
  - "J. Watrous, P. J. Roach, T. Alexandrov, B.S. Heath, J. Y. Yang, R. Kersten, M. Voort, K. Pogliano, H. Gross, J. M. Raaijmakers, B. S. Moore, J. Laskin, N. Bandeira, P. C. Dorrestein, *Proc Natl Acad Sci U S A*, 2012, 10.1073/pnas.1203689109"
- 5. Reference 102 was updated to include the DOI:
  - "J. Wang, P. E. Bourne and N. Bandeira, Mol Cell Proteomics, 2011, 10.1074/mcp.M111.010017."

6.	Reference 104 was updated to include the DOI: "H. Lam. <i>Mol Cell Proteomics</i> , 2011, <b>10</b> , 10.1074/mcp.R111.008565."