
BIOGRAPHICAL SKETCH

| NAME Carol Vivien Robinson | POSITION TITLE Professor Department of Chemistry | | |
|---|--|---------|---|
| CURRENT AFFILIATION Fellow of the Royal Society, Professor at the University of Cambridge | | | |
| EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i> | | | |
| INSTITUTION AND LOCATION | DEGREE <i>(if applicable)</i> | YEAR(s) | FIELD OF STUDY |
| University of Cambridge Lensfield Road Cambridge CB2 1EW | Ph.D | 1982 | Protein interaction networks using mass mass spectrometry |

List of five recent publications by the candidate:

CAROL V. ROBINSON

- 1) Evidence for macromolecular protein rings in the absence of bulk water. BT Ruotolo, K Giles, I Campuzano, AM Sandercock, RH Bateman, CV Robinson. **Science** **310**:1658-61, 2005.
- 2) Structural organization of the 19S proteasome lid: insights from MS of intact complexes. M Sharon, T Taverner, XI Ambroggio, RJ Deshaies, CV Robinson. **PLoS Biol.** **4**:1314-23, 2006.
- 3) The molecular sociology of the cell CV Robinson, A Sali, W Baumeister. **Nature** **450**:973-982, 2007.
- 4) Assembly reflects evolution of protein complexes. ED Levy, EB Erba, CV Robinson, SA Teichmann. **Nature** **453**:1262-65, 2008.
- 5) Micelles protect membrane complexes from solution to vacuum. NP Barrera, N Di Bartolo, PJ Booth, CV Robinson. **Science** **321**:243-246, 2008.

Please indicate in 200 words or less the reason(s) why you would be a suitable candidate for the HUPO Council elections.

Carol Robinson's interest in mass spectrometry began at the age of 16 at Pfizer Ltd. where she worked as a technician in the analytical chemistry department. Although her role was to become proficient in all aspects of analytical chemistry, mass spectrometry was the technique that she found most fascinating. After 7 years spent on the structural elucidation of organic molecules, and having obtained a part time degree in chemistry, she wanted to take mass spectrometry into new areas. She was fortunate to be given an opportunity to study for an MSc with Prof. JH Beynon FRS and began investigations of synthetic oligopeptides. After completing her MSc she applied to Cambridge to study for a PhD under the direction of Prof. DH Williams FRS.

After an 8 year career break to begin raising her three children her return to research coincided with the introduction of electrospray mass spectrometry, enabling the analysis of individual protein molecules. Her initial research interest using this approach was to develop procedures through which it is possible to obtain information about the development of secondary structure during protein folding reactions. During this time Carol then began to observe interactions proteins and cofactors and this developed into her current interest in transmitting and studying intact protein complexes in the gas phase.

Today Carol Robinson is a Royal Society Research Professor of Biological Chemistry in the Department of Chemistry at the University of Cambridge. She has received a number of awards including a Royal Society of Chemistry Medal for Mass Spectrometry (2002), the American Society for Mass Spectrometry Biemann Medal (2003) and the Christian Anfinsen Award from the Protein Society (2008). In 2004 Professor Robinson became a Fellow of Royal Society for her outstanding achievements in mass spectrometry, in the same year she was given the prestigious Royal Society Rosalind Franklin award.

Carol's current research interest is in determining protein interaction networks using mass spectrometry. Her group have also developed ion mobility methods to add topological information and to enable her to define the subunit architecture of protein complexes. Very recently they have discovered ways of maintaining membrane protein complexes intact within the mass spectrometer enabling new insight into interactions between membrane and cytoplasmic