

Best Paper Award 2002



Stefan Westermann

We are pleased to announce that the winner of the award for the Best Paper published in 2002 is Stefan Westermann for the paper entitled 'Identification of CfNek, a novel member of the NIMA family of cell cycle regulators, as a polypeptide copurifying with tubulin glutamylation activity in *Crithidia*' [Westermann, S. and Weber, K. (2002). *J. Cell Sci.* **115**, 5003-5012].

The prize, \$1000, is awarded annually

to the first author of the paper that is judged by the Editors and Editorial Board to be the best published in the Journal that year. To be considered for the prize, the first author must be a student or postdoc of no more than five years standing.

Stefan Westermann was born near Hamm, Germany, where he also went to school. He then studied biochemistry at the University of Hannover and for his PhD joined the laboratory of Klaus Weber at the Max-Planck Institute for Biophysical Chemistry in Goettingen. There he studied the post-translational glutamylation of microtubules, that is, the attachment of long side chains of glutamic acid to the C-terminus of α - and β -tubulin. This is a very prominent modification in mammalian brain, as well as in basal bodies, cilia and flagella, yet at the time no one knew anything about the enzymology of this process. Because the purification of glutamylation activity from mammalian brains proved to be very difficult, he turned to trypanosomes, such as *Crithidia fasciculata*, which have a highly glutamylated microtubular cytoskeleton. In a collaboration with Andre Schneider (University of Fribourg, Switzerland) he demonstrated that isolated trypanosomal cytoskeletons contain an activity that incorporates glutamic acid into tubulin in an ATP-dependent manner (Westermann et al., 1999). He then went on to further purify the activity (which involved long hours in the coldroom)

and finally cloned the major protein band of the purification. Excitingly, the protein belongs to a family of enzymes that have roles in assembly and maturation of the centrosome as well as in cell cycle regulation (Westermann and Weber, 2002). The challenge is now to find out which other members of the NIMA family (there are 11 in the human genome) have roles in tubulin modification as well. Since very little is known about how MAPs and motor proteins recognize and distinguish different subsets of microtubules within the cell, the tubulin modifications have the potential to become very exciting in the future.

Stefan started a postdoctoral position in the laboratory of David Drubin and Georjana Barnes at the University of California, Berkeley last summer, where he is currently studying kinetochore proteins in budding yeast.

Fiona Watt
(Editor-in-Chief)

References

- Westermann, S., Schneider, A., Horn, E. K. and Weber, K.** (1999). Isolation of *Crithidia* tubulin polyglutamylase; binding to microtubules and tubulin, and glutamylation of mammalian brain α - and β -tubulins. *J. Cell Sci.* **112**, 2185-2193.
- Westermann, S. and Weber, K.** (2002). Identification of CfNek, a novel member of the NIMA family of cell cycle regulators, as a polypeptide copurifying with tubulin glutamylation activity in *Crithidia*. *J. Cell. Sci.* **115**, 5003-5012.

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Although we discourage submission of unsolicited Commentaries to the journal, ideas for future articles – in the form of a short proposal and some key references – are welcome and should be sent to the Executive Editor at the address below.

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