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Art & Science Team Up for BJ Cover Artist Klaus Schulten

by biophysicalsociety

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Klaus Schulten, Swanlund Professor of Physics at the University of Illinois at Urbana-Champaign and full-time faculty member in the Beckman Institute and director of the Theoretical and Computational Biophysics Group, discusses collaborating with artists from a scientist's perspective to create the cover image for the latest issue of *Biophysical Journal*.



1) How did you compose this image?

In our *Biophysical J.* paper my co-authors and I sketched a myosin VI dimer to express our main finding. The dimer looked to me like a tightrope artist and so the idea for the cover image was born. In the back of my mind was also an earlier *Science* Magazine cover image that my co-author Paul Selvin once produced to illustrate that myosins walk like people rather than move like inchworms.

I approached with my idea Olga Svinarski, who had helped me very successfully with earlier cover images. She suggested to show several myosin tightrope artists walk in an Escher kind of arrangement inside a cell. I liked the idea and she made several drawings. We then approached a resident computer artist, Alex Jerez, who had teamed

up with Olga Svinarski and me before, to color the drawings and turn them into a suitable cover image.

2) What prompted you to submit your image as cover art?

The high quality of the research and the clear opportunity to express the discovery made in a nice image.

3) How does this image reflect your scientific research?

The research problem deals with the "walking geometry" of the myosin VI motor protein. There is an obvious link between depicting a walking tightrope artist and describing the research finding. The setting of the walking myosins in the cell is linked to Paul Selvin and myself, the two senior authors of the publication, being passionate members of the NSF Center for the Physics of Living Cells, i.e., we see "understanding the biological cell" as the key purpose of our work.

4) Where do you see the artistry in your image? How did you come to see this?

The artistry was Olga Svinarski's part; my contribution to the cover image was to communicate the science to her who is not a scientist. In this case and in the case of earlier cover images, Olga Svinarski drew inspiration from the work of other artists, in the present case the drawings of M.C. Escher.

5) How does it feel to have your image chosen as the cover of an issue of *Biophysical Journal*? What is the significance of this for you?

I think that the great scientific discovery my colleagues and I made deserves the extra attention and I think that the cover fits the science naturally. Personally: I have a sophisticated science friend, who is way above my league, with whom I compete about who has the better cover images; this image boosts my case as even he had to admit the image is good.

6) Do you consider yourself an artist as well as a scientist? Any ideas or aspirations for your next scienceas-art submission?

My group develops the molecular graphics software VMD in which capacity I think about images a lot. Otherwise, I rely on communicating my scientific discoveries to my artist friend Olga Svinarski. The two of us may strike again.

7) Do you have a website where our readers can view your recent research?

www.ks.uiuc.edu (See, in particular, the monthly research highlight column.)

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