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Cover legend: Rendering of major structural components from a tomographic reconstruction of a mushroom-shaped spine. Surface membrane of spine is rendered as a yellow-brown shell. Large gold filaments match the size and shape of actin filaments.

The identity of the very fine green filaments is unknown, but they are likely to correspond to spectrin filaments. Two vesicles (purple) festooned with vesicle-associated proteins (green) mingle with the actin-like filaments in the interior of the spine.

Vertical filaments (red) and transmembrane structures (both azure) provide a backbone of interlocking scaffolding elements largely independent of other structures in the body of the spine. For more information, see the article by Chen et al. in this issue (pages 9321–9327).

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