

# Pelvic organs given the slip by the protein fibulin-5

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Pelvic organ prolapse (POP) is a disabling condition that affects almost 50% of women over the age of 50. It occurs when the muscles and ligaments supporting a woman's pelvic organs weaken such that the pelvic organs slip out of place, often protruding into the vagina.

For many affected women, treatment involves surgery. Defining the [molecular mechanisms](#) underlying POP could provide targets for nonsurgical approaches to treating the condition. In this context, a team of researchers, led by Hiromi Yanagisawa, at the University of Texas Southwestern Medical Center, Dallas, has now identified a key role for the protein fibulin-5 in preventing the development of POP in [mice](#).

The team found that fibulin-5 prevents the development of POP in mice in two ways. First, it facilitates the assembly of normal elastic fibers that help keep pelvic organs in place. Second, it inhibits the activity of MMP9, a protein that degrades the elastic fibers that help keep pelvic organs in place. As vaginal tissue samples from women with POP also showed increased levels of MMP-9, the authors suggest that therapies targeting elastic fiber-degrading proteins may help prevent, or even ameliorate, POP in women.

Gina Northington, at the University of Pennsylvania School of Medicine, Philadelphia, discusses in detail the importance of this study in an accompanying commentary.

**More information:** Extracellular matrix proteases contribute to

progression of pelvic organ prolapse in mice and humans. View this article at: [www.jci.org/articles/view/4563 ... c7a74618d3a706d6e2a5](http://www.jci.org/articles/view/4563...c7a74618d3a706d6e2a5)  
Fibulin-5: two for the price of one maintaining pelvic support.  
[www.jci.org/articles/view/5743 ... dab0f15181873ab2fbf9](http://www.jci.org/articles/view/5743...dab0f15181873ab2fbf9)

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