

Yale Scientist Erin Lavik Honored For Academic Innovation And Leadership

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Erin Lavik, an assistant professor of biomedical engineering at Yale, was honored recently by the Connecticut Technology Council as one of their 2008 Women of Innovation.

The annual event, now in its fourth year, honors Connecticut women in eight categories for their achievements as small business owners, entrepreneurs, researchers, community leaders and innovators. This year's winners were selected from 105 nominees.

According to Matthew Nemerson, president and chief executive of the Council, the awards help to identify and create a culture of innovation in the state.

Lavik, who was cited for her academic innovation and leadership, focuses her research on developing new therapeutic approaches for the treatment of spinal cord injury and retinal degeneration.

She begins repair of damaged tissues using biodegradable polymers formed into three-dimensional scaffolds that mimic the structure of the tissue. After chemically modifying the scaffold surfaces, she incorporates growth factors that further create an environment for repair.

By combining neural or retinal stem cells with these environments, she is discovering the cues that promote integration and differentiation of the cells into healthy tissue. In a rodent model of spinal cord injury, the seeded scaffold promoted functional recovery allowing the rats to regain a weight-bearing stride. She also collaborated on an implantable system that can form and stabilize a functional network of fine blood vessels critical for supporting tissues in the body.

Lavik is also noted for her leadership, and has played a role in organizing and sustaining the Yale "Science Saturdays" series of workshops for local schoolchildren. The highly successful program introduces middle- and high-school students to Yale scientists who demonstrate the excitement of their research.

Before joining the Yale faculty of Biomedical Engineering in 2003, Lavik earned her Doctorate of Science at the Massachusetts Institute of Technology (MIT). Among her honors, she was named in 2003 a Top Young Innovator by MIT's Technology Review publication for her pioneering work. In 2004, she was nominated for a WIRED Magazine Rave Award as a "leading thinker and doer," and she received an Early Career Award for research from the Coulter Foundation in 2006.

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Source: Janet Rettig Emanuel
[Yale University](#)