OAKLAND UNIVERSITY

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Professor Sheldon Gordon Studies Wound Repair in the Cornea

Professor **Sheldon Gordon** of the **Department of Biological Sciences** investigates the mechanisms regulating **mitosis** in **corneal endothelial cells**. Mitosis abates in these cells shortly after birth, resulting in lower cell numbers as aging progresses. This cell layer is responsible for maintaining corneal hydration, and cell loss jeopardizes tissue transparency, rendering corneas unsuitable as donors for transplantation. In the March 2009 issue of **Cell and Tissue Research**, Gordon published "**Soybean Agglutinin Binding to Corneal Endothelial Cell Surfaces Disrupts in Situ Monolayer Integrity and Actin Organization and Interferes with Wound Repair**" (Volume 335, Pages 551-563). The soybean agglutinin binding is a marker for a surface protein that is present during gestation but disappears during development, only to reappear again when the tissue is injured. Gordon's results "suggest that soybean agglutinin binding reflects the synthesis of a stress-induced protein(s) that may play a role in reestablishing cell-cell relationships during monolayer reorganization following injury." Coauthor Meredith Wood worked in Sheldon's lab as an OU undergraduate.

SUMMARY
Professor Sheldon Gordon of the Department of Biological Sciences investigates the mechanisms regulating mitosis in corneal endothelial cells.

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