Is prolactin inducible protein (PIP) protective against breast cancer?

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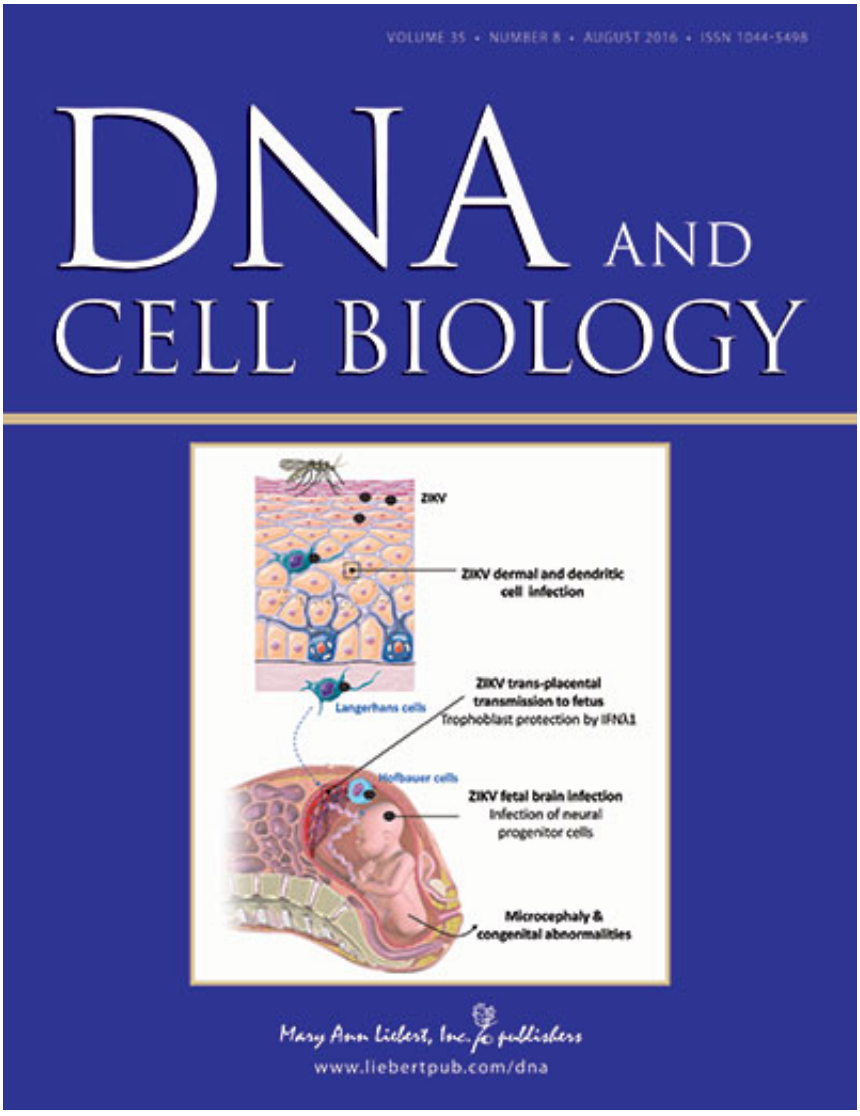

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Researchers describe the first evidence linking prolactin inducible protein (PIP) to the immune system's ability to recognize and destroy foreign cells, such as tumor cells. New research in PIP-deficient mice that demonstrates the role of PIP in cell-mediated immunity and suggests that this immune regulatory function may be protective against breast cancer is presented in *DNA and Cell Biology*.

Coauthors Olivia Ihedioha, Robert Shiu, Jude Uzonna, and Yvonne Myal, University of Manitoba, Winnipeg, Canada, describe the potential clinical implications of these findings, in which PIP could represent an effective new target for the development of novel immunotherapeutic agents. The researchers review their recent studies of PIP, known as a biomarker of mammary differentiation, in the article entitled "Prolactin-Inducible Protein: From Breast Cancer Biomarker to Immune Modulator—Novel Insights from Knockout Mice."

"Breast cancers are among the most common tumors. PIP was observed to be selectively expressed by these cells," says Carol Shoshkes Reiss, PhD, Editor-in-Chief of *DNA and Cell Biology* and Professor, Departments of Biology and Neural Science, and Global Public Health at New York University, NY. "The work from the Myal lab in this paper is exciting because of the immunoregulatory activity they describe. I hope it will lead to novel therapeutic approaches to this devastating disease."

More information: Olivia C. Ihedioha et al, Prolactin-Inducible Protein: From Breast Cancer Biomarker to Immune Modulator—Novel Insights from Knockout Mice, *DNA and Cell Biology* (2016). DOI: 10.1089/dna.2016.3472

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