

## Dissecting molecular networks of leptin in breast cancer: Complexities and opportunities

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**P**erturbations in the adipocytokines-profile, especially higher levels of leptin, are a major cause of breast tumor progression and metastasis. The focus of this talk is to discuss the impact of obesity on cancer with a special focus on breast cancer, discuss the underlying molecular mechanisms and discuss the potential therapeutic opportunities.

### Biography

Dipali Sharma attained her Ph.D. in Oncology followed by postdoctoral training at University of Maryland and Johns Hopkins University. She is an Associate Professor of Oncology at Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins. Her lab focuses on investigating the molecular links between obesity and cancer, emphasizing aspects that have potential clinical significance. They are exploring new strategies to disrupt obesity-cancer connection using a variety of approaches. Their overall goal is to understand the molecular networks by which obesity affects carcinogenesis and discover novel agents to effectively disrupt obesity-cancer axis.

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## Effect of blockade of EGF system on wound healing in patients vaccinated with CIMAvax® EGF

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**T**he EGFR signaling system is frequently unbalanced in human malignancies due to increased ligand production, receptor overexpression, receptor mutations, and/or cross-talk with other receptor systems. So, the EGFR is an attractive target for anticancer therapy. The EGF also plays an important role regulating multiple facets of cutaneous wound healing, including inflammation, wound contraction, proliferation, migration, and angiogenesis. The Center of Molecular Immunology produces CIMAvax EGF (cancer vaccine) that blocks the binding of EGF to its receptor. This blockade causes a significant inverse association between the anti-EGF antibody titers and EGF concentration. Around 1500 non-small cell lung cancer patients have been treated, showing that this vaccine is safe, immunogenic, increases survival and improves quality of life. Taking into account the therapeutic benefits of CIMAvax® EGF vaccination and the role of EGF-EGFR system on the wound healing, we decided to conduct a retrospective research with the aim of determining the effect of this vaccine on the wound healing in patients undergoing surgical treatment. To identify patients who had undergone surgical treatment, medical records of 452 patients were reviewed. After identification of patient that received surgical treatment, further information was obtained from source documents using an observational list. Postsurgical wound healing complications were identified using the national cancer institute common toxicity criteria for adverse events version 3.0. None of the 6 patients operated presented adverse events related with the wound healing. These results suggest that the use of CIMAvax® EGF apparently does not produce a deleterious effect in the wound healing process.

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