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(71) Applicant *(for all designated States except US)*: **THE BOARD OF TRUSTEES OF THE UNIVERSITY OF ILLINOIS** [US/US]; Office of Technology Management, 1853 West Polk Street, Suite 446, Chicago, IL 60612 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **DAS GUPTA, Tapas** [US/US]; 1317 Jackson Avenue, River Forest, Illinois 60305 (US). **CHAKRABARTY, Ananda** [US/US]; 206 Julia Drive, Villa Park, Illinois 60181 (US).

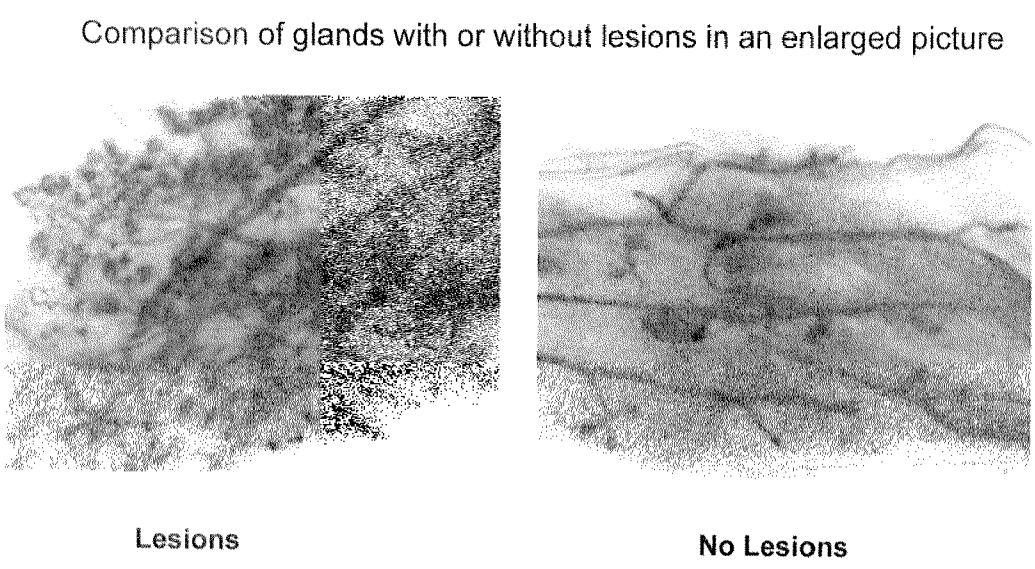
(74) Agent: **PELTO, Don**; Sheppard Mullin Richter & Hampton, LLP, 1300 I Street NW, 11th Floor East, Washington, District Of Columbia 20005 (US).

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(54) **Title:** COMPOSITIONS AND METHODS TO PREVENT CANCER WITH CUPREDOXINS



(57) **Abstract:** The present invention relates to compositions comprising peptides that may be variants, derivatives and structural equivalents of cupredoxins that inhibit the development of premalignant lesions in mammalian cells, tissues and animals. Specifically, these compositions may comprise azurin from Pseudomonas aeruginosa, and/or the 50-77 residue region of azurin (p28). The present invention further relates to compositions that may comprise cupredoxin(s), and/or variants, derivatives or structural equivalents of cupredoxins, that retain the ability to inhibit the development of premalignant lesions in mammalian cells, tissues or animals. These compositions may be peptides or pharmaceutical compositions, among others. The compositions of the invention may be used to prevent the development of premalignant lesions in mammalian cells, tissues and animals, and thus prevent cancer.

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