



CANCER PREVENTION & RESEARCH
INSTITUTE OF TEXAS

Award ID:
RP160124

Project Title:
Chemoprevention of Colon Cancer by Anti-inflammatory Blockade Using
Neem

Award Mechanism:
Individual Investigator Research Awards for Prevention and Early
Detection

Principal Investigator:
Wargovich, Michael J

Entity:
The University of Texas Health Science Center at San Antonio

Lay Summary:

Use of anti-inflammatory drugs appears to protect against the development of colon cancer, yet their long-term use of these agents as cancer preventives is plagued by unacceptable toxicity such as bleeding, ulceration, impaired renal function and heart attacks. Yet targeting chronic inflammation as a colorectal cancer prevention strategy remains very promising, if safer anti-inflammatory agents can be found. From nature, the neem tree, native to India and Africa is highly prized for its anti-inflammatory activity in use as a traditional medicine. Our laboratory has unique access to a highly purified supercritical extract of neem leaf and we have identified a promising lead compound, nimbolide, which may have striking cancer preventive activity for colon cancer. In this proposal we will test the hypothesis that compounds in neem will provide an effective blockade of chronic inflammation associated with colon cancer without toxicity. We will employ both cell culture and a relevant animal model of inflammation-driven colon cancer to study neem's future potential for preventing human colon cancer.