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Research Interests

Dr. Gairola's research interests are mainly in the area of cigarette smoke toxicology. The following three aspects of cigarette smoke toxicity are under investigation:

- (1) The mechanism(s) through which cigarette smoke causes toxicity to the female reproductive system, eg., earlier menopause in women smokers:
- (2) The effect of cigarette smoke on the pulmonary surfactant (phospholipids and surfactant-associated proteins) and antioxidant enzyme systems in the developing lungs and,
- (3) Protection of cigarette smoke-induced lung DNA damage by chemopreventive agents.



Selected Research Publications/Presentations

Wurzel H, Yeh CC, Chow CK and Gairola CG. Oxidative damage and antioxidant status in the lungs and bronchoalveolar lavage fluid of rats chronically exposed to cigarette smoke. *J Biochem Toxicol* 10:1-7, 1995.

Subramaniam S, Bummer P and Gairola CG. Biochemical and biophysical characterization of pulmonary surfactant from rats chronically exposed to cigarette smoke. *Fund Applied Toxicol*, 27:63-69, 1995.

Reinhart PG, Lai Y-L, and Gairola CG. Amiodarone-induced pulmonary fibrosis in Fisher 344 rats. *Toxicology* 109:1-7, 1996.

Subramaniam S, Whitsett JA, Hull W and Gairola CG. Alterations of pulmonary surfactant proteins in rats chronically exposed to cigarette smoke. *Toxicol Appl Pharmacol* 140:274-280, 1996.

Reinhart PG and Gairola CG. Amiodarone-induced pulmonary toxicity in Fischer rats: Release of tumor necrosis factor-alpha (TNF -alpha) and transforming growth factor-beta (TGF-beta) by pulmonary alveolar macrophages. *J Environ Hlth Toxicol* (in press) 1997.