〔Mutat. Res., **144**, 197 (1985)〕

Genotoxicity of Carcinogenic N-Nitrosopropylamine Derivatives in the Hepatocyte Primary Culture/DNA-Repair Test.

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The genotoxicity of N-nitrosodipropylamine, 8 of its oxidized derivatives and N-nitroso-2, 6-dimethylmorpholine was examined in the hepatocyte primary culture (HPC)/DNA repair test. Nine N-nitrosamines which are known to be carcinogenic and mutagenic were clearly positive in the HPC/DNA-repair test. N-Nitroso(2, 3-dihydroxypropyl)(2-hydroxypropyl)amine did not elicit DNA repair, but showed a borderline mutagenic response in the *Salmoella*/microsome test. Thus, the HPC/DNA-repair test displays a comparable capacity to the bacterial mutagenesis test for detecting the genotoxic effects of this class of carcinogens.

〔The Biliary Tract & Pancreas, **6**, 971 (1985)〕

Vascular Changes in Primary and Transplantable Pancreatic Adenocarcinomas Induced by Propylnitrosamines.

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Vascular changes during formation process of pancreatic adenocarcinomas were periodically investigated by comparing microscopical observations of primary pancreatic adenocarcinomas of hamsters induced by N-nitrosobis(2-oxopropyl)amine with microangiograms of transplantable pancreatic adnocarcinomas induced by N-nitrosobis(2-hydroxypropyl)amine.

〔Chem.-Biol. Interact.,**56**, 125 (1985)〕

4-Hydroxyaminoquinoline 1-Oxide Metabolism and DNA Adducts in the Early Stage of Tumorigenesis in Rats: Comparison of Target Organ Pancreas with Non-Target Organ Liver.

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In order to probe key early molecular events which might be responsible for the initiation of rat pancreatic tumorigenesis by 4-hydroxyaminoquinoline 1-oxide (4-HAQO), the uptake and metabolism of carcinogen and the formation and subsequent repair of DNA adducts were monitored under conditions of high and low pancreatic tumorigenicity and in the liver. Results indicate that metabolic profile of 4-HAQO, quantity of DNA adducts and levels of DNA replication are key factors involved in initiation of tumorigenesis.