Research output

Apiaceous vegetable intake modulates expression of DNA damage response genes and microRNA in the rat colon

Apiaceous vegetables and cruciferous phytochemicals reduced phip-DNA adducts in prostate but not in pancreas of wistar rats

Comparison of short- and long-term exposure effects of cruciferous and apiaceous vegetables on carcinogen metabolizing enzymes in Wistar rats

Phenethyl isothiocyanate and indole-3-carbinol from cruciferous vegetables, but not furanocoumarins from apiaceous vegetables, reduced PhiP-induced DNA adducts in Wistar rats

Comparative DNA adduct formation and induction of colonic aberrant crypt foci in mice exposed to 2-amino-9H-pyrido[2,3-b]indole, 2-amino-3,4-dimethylimidazo[4,5-f]quinoline, and azoxymethane

α-Cyclodextrin as a food ingredient to reduce fat absorption

Apiaceous vegetable consumption decreases PhiP-induced DNA adducts and increases methylated PhiP metabolites in the urine metabolome in rats

Meat and Colorectal Cancer: Associations and Issues

Wheat Type (Class) Influences Development and Regression of Colon Cancer Risk Markers in Rats

Wheat color (Class), not refining, influences colon cancer risk in rats

Malonylglicoside conjugates of isoflavones are much less bioavailable compared with unconjugated β-glucosidic forms in rats

High-viscosity dietary fibers reduce adiposity and decrease hepatic steatosis in rats fed a high-fat diet
Malonylglucoside conjugates of isoflavones are much less bioavailable compared to unconjugated beta-glucosidic forms in rats.

Consumption of a high β-glucan barley flour improves glucose control and fatty liver and increases muscle acylcarnitines in the Zucker diabetic fatty rat

Nutrition and Colon Cancer

The role of viscosity and fermentability of dietary fibers on satiety- and adiposity-related hormones in rats

Cow-level association between serum 25-hydroxyvitamin D concentration and Mycobacterium avium subspecies paratuberculosis antibody seropositivity: A pilot study

Hydroxypropyl methylcellulose, a viscous soluble fiber, reduces insulin resistance and decreases fatty liver in Zucker Diabetic Fatty rats

Reduction in colon cancer risk by consumption of kava or kava fractions in carcinogen-treated rats

Influence of cross-linked arabinoxylans on the postprandial blood glucose response in rats

Development and validation of a spectrophotometric method for quantification of total glucosinolates in cruciferous vegetables

Viscous dietary fiber reduces adiposity and plasma leptin and increases muscle expression of fat oxidation genes in rats

Whole grain consumption has a modest effect on the development of diabetes in the Goto-Kakisaki rat

Viscous dietary fiber reduces adiposity and plasma adipokines and increases gene expression related to fat oxidation in rats

Dietary effects of distillers dried grains with solubles on performance and milk composition of lactating sows
Influence of whole grain barley, whole grain wheat, and refined rice-based foods on short-term satiety and energy intake

Dried plums (prunes) reduce atherosclerosis lesion area in apolipoprotein E-deficient mice

Pancreatitis induced in rats by repetitive administration of L-arginine

Effect of soluble and insoluble fiber on energy digestibility, nitrogen retention, and fiber digestibility of diets fed to gestating sows

Cruciferous vegetables reduce morphological markers of colon cancer risk in dimethylhydrazine-treated rats

Influence of dietary fiber on body weight regulation

Effects of indole-3-carbinol and phenethyl isothiocyanate on colon carcinogenesis induced by azoxymethane in rats

Dietary fiber

Effect of dried plums on colon cancer risk factors in rats

The potential health benefits of corn components and products

Conjugated linoleic acid, cis-9,trans-11, is a substrate for pulmonary 15-lipoxygenase-1 in rat

The effect of anesthesia by diethyl ether or isoflurane on activity of cytochrome P450 2E1 and P450 reductases in rat liver

Effects of a Controlled Diet and Black Tea Drinking on the Fecal Microflora Composition and the Fecal Bile Acid Profile of Human Volunteers in a Double-Blinded Randomized Feeding Study

Beef tallow increases apoptosis and decreases aberrant crypt foci formation relative to soybean oil in rat colon

Whole grain intake and cardiovascular disease: A review
Chitosan, cholesterol lowering, and caloric loss

Nonradiometric HPLC measurement of 13(S)-hydroxyoctadecadienoic acid from rat tissues

Raising intestinal contents viscosity leads to greater excretion of neutral steroids but not bile acids in hamsters and rats

Dietary stearic acid alters gallbladder bile acid composition in hamsters fed cereal-based diets

Plant sterols alter bile acid metabolism and reduce cholesterol absorption in hamsters fed a beef-based diet

A glucomannan and chitosan fiber supplement decreases plasma cholesterol and increases cholesterol excretion in overweight normocholesterolemic humans

Larval sea lamprey release two unique bile acids to the water at a rate sufficient to produce detectable riverine pheromone plumes

Effect of dietary fiber on protein digestibility and utilization

Effects of lyophilized black raspberries on azoxymethane-induced colon cancer and 8-hydroxy-2′-deoxyguanosine levels in the fischer 344 rat

Erratum: Response of urinary lipophilic aldehydes and related carbonyl compounds to factors that stimulate lipid peroxidation in vivo (Lipids (2000) 35 (855-862))

Dietary fiber

Effect of dietary fiber on protein digestibility and nitrogen retention

Effects of dietary fiber on digestive enzymes

Cholesterol reduction by glucomannan and chitosan is mediated by changes in cholesterol absorption and bile acid and fat excretion in rats
The role of probiotic cultures in the prevention of colon cancer

Effects of dietary inulin on serum lipids, blood glucose and the gastrointestinal environment in hypercholesterolemic men

Response of urinary lipophilic aldehydes and related carbonyl compounds to factors that stimulate lipid peroxidation in vivo

Vitamin E and probucol reduce urinary lipophilic aldehydes and renal enlargement in streptozotocin-induced diabetic rats

Bioavailability of different sources of protected zinc

Dietary fiber and its physiological effects

Dietary fiber in exercise and sport

The antioxidants vitamin E and probucol reduce renal enlargement and in vivo lipid peroxidation in streptozotocin-treated diabetic rats

The effect of synbiotics on colon carcinogenesis in rats

Intestinal contents supernatant viscosity of rats fed oat-based muffins and cereal products

Lipophilic aldehydes and related carbonyl compounds in rat and human urine

Carbohydrate source and bifidobacteria influence the growth of Clostridium perfringens in vivo and in vitro

Beef tallow decreases colonic precancerous lesions and the concentration of fecal bile acids in rats

Effect of inulin consumption on lipid and glucose metabolism in healthy men with moderately elevated cholesterol

Indication of the Maillard Reaction during Storage of Protein Isolates
Reduced cholesterol absorption and intestinal solubilization by stearic acid-rich fats in rats

Dietary stearic acid reduces plasma and hepatic cholesterol concentrations without increasing bile acid excretion in cholesterol-fed hamsters

Development of colon1c pre-cancerous lesions in rats fed soy protein isolates and genistein during initiation: Effect of animal age and isolate storage time

Relationships between viscosity of hydroxypropyl methylcellulose and fecal bile acid and neutral sterol excretion in hamsters

Reduced digestibility of beef tallow and cocoa butter affects bile acid excretion and reduces hepatic esterified cholesterol in rats

Increased intestinal contents viscosity reduces cholesterol absorption efficiency in hamsters fed hydroxypropyl methylcellulose

Probiotics, cecal microflora, and aberrant crypts in the rat colon

Biliary manganese excretion in conscious rats is affected by acute and chronic manganese intake but not by dietary fat

Dietary Fiber

Lipid peroxidation in vivo measured by urinary excretion of aldehydes and hydroxy aldehydes

The olfactory system of migratory adult sea lamprey (Petromyzon marinus) is specifically and acutely sensitive to unique bile acids released by conspecific larvae

Beef Tallow, But Not Corn Bran or Soybean Polysaccharide, Reduces Large Intestinal and Fecal Bile Acid Concentrations in Rats

Olfactory sensitivity of migratory adult sea lamprey (Petromyzon marinus) to bile acids, amino acids, and sex hormones: recent developments and future directions
Diabetes increases excretion of urinary malonaldehyde conjugates in rats

Relationships between viscosity of hydroxypropyl methylcellulose and plasma cholesterol in hamsters

Viscosity and fermentability as attributes of dietary fiber responsible for the hypocholesterolemic effect in hamsters

Animal Models in Human Nutrition Research

Bile acid metabolism in rats fed two levels of corn oil and brans of oat, rye and barley and sugar beet fiber

Dietary guar gum halts further renal enlargement in rats with established diabetes

Effect of dietary fiber on digestive enzymes

Effect of dietary fiber on protein digestibility and nitrogen retention

Consumption of prunes as a source of dietary fiber in men with mild hypercholesterolemia

Effects of corn oil and wheat brans on bile acid metabolism in rats

The effect of dietary fiber type on glycated hemoglobin and renal hypertrophy in the adult diabetic rat

Zinc availability from beef served with various carbohydrates or beverages

Dietary Fiber

Prunes as a source of fiber

An improved procedure for bile acid extraction and purification and tissue distribution in the rat

Bioavailability in humans of zinc from beef: Intrinsic vs extrinsic labels
Isolation and Characterization of Hemicellulose and Cellulose from Sugar Beet Pulp

Dietary fiber and nutrient bioavailability

Nutritional and metabolic response to plant inhibitors of digestive enzymes.

Pancreatic response to dietary trypsin inhibitor: variations among species.

Intestinal interaction of bile acids phospholipids, dietary fibers, and cholestyramine

Effect of dietary fiber on digestive enzymes

Effect of dietary fiber on protein digestibility and nitrogen retention

Effect of dietary cellulose on site of lipid absorption.

Dietary fibers and long-term blood glucose control as measured by glycosylated hemoglobin
Andresen, M. & Gallaher, D., Jan 1 1985, In : Federation Proceedings. 44, 3

Effects of Dietary Fiber on Digestive Enzyme Activity and Bile Acids in the Small Intestine

Pancreatic response to agar and carrageenan feeding in the rat
Gallaher, D. & Skauge, L., Jan 1 1985, In : Federation Proceedings. 44, 3

Pancreatic response to dietary trypsin inhibitor: Variations among species
Schneeman, B. O. & Gallaher, D., Jan 1 1985, In : Federation Proceedings. 44, 5

Nutritional and metabolic response to plant inhibitors of digestive enzymes.

Nutritional and metabolic response to plant inhibitors of digestive enzymes

Pancreatic and intestinal enzyme activity in rats fed various fiber sources
Low zinc concentration in rat uterine fluid after 4 days of dietary deficiency

Changes in small intestinal digestive enzyme activity and bile acids with dietary cellulose in rats

Grants
Flavor, Nutrition and Functional Properties of Pea Protein
Ismail, B. P., Gallaher, D. D. & Reineccius, G. A.
USDA AGRICULTURAL RESEARCH SERVICE
9/1/18 – 2/28/21