

SUCRALOSE, A SYNTHETIC ORGANOCHLORINE SWEETENER: OVERVIEW OF BIOLOGICAL ISSUES

Susan S. Schiffman¹, Kristina I. Rother²

¹Department of Electrical and Computer Engineering, College of Engineering, North Carolina State University, Raleigh, North Carolina, USA

²Section on Pediatric Diabetes & Metabolism, Diabetes, Endocrinology, and Obesity Branch, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health, Bethesda, Maryland, USA

Sucralose is a world's food s a role in swe shown to incr cytochrome P- the presystem sucralose on f In rats, sucralo atively greater passes through sweetener is a radiochromato tion. The ident this time. Sucr concentrations reported to get rodent studies tide 1 (GLP-1) inert compound.

- Alterations in insulin, blood glucose, and glucagon-like peptide 1 (GLP-1) levels
- Reduction in the abundance and diversity of beneficial bacteria in the GI tract
- Histopathological findings include lymphocytic infiltrates into the epithelium, epithelial scarring, mild depletion of goblet cells and glandular disorganization in the colon

The organochlorine (OC) sweetener sucralose is a synthetic trichlorinated disaccha-

for use in Canada, followed by Australia in 1993, and New Zealand in 1996 (Davies,