Purpose: To work with breast cancer survivors and their advocacy, support and service organizations to enhance the public’s understanding of the environmental factors which may impact breast cancer and to promote public dialogue about the policy and service implications of the research findings.

Project 1: Environmental Effects on the Molecular Architecture & Function of the Mammary Gland Across the Lifespan

Objectives

• Determine the potential for fatty acids to alter the degree and/or the age range in which the mammary gland is susceptible to cancer initiation
• Examine the effect of isoflavones on the degree & age of susceptibility to cancer initiation after exposure to irradiation or benzo[a]pyrene
• Develop a screening method to determine the mammary cancer causing potential of environmental chemicals & dietary factors

Project 2: Environmental & Genetic Determinants of Puberty

Objectives

• Determine if pathways of female development and family history of breast cancer are associated with each other and to age at the onset of puberty
• Examine environmental factors such as physical activity and exposure to environmental toxicants for correlation with childhood obesity and/or pathways of female development
• Examine dimensions of the social environment such as lifestyle factors and behavior that may impact the age of the onset of puberty
• Identify the genetic variants associated with different pathways through puberty
• Examine prenatal and early postnatal exposures to environmental chemicals, fetal growth and diet relative to early breast tissue development and obesity

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