

The Bench and Beyond



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Welcome to San Diego Biomedical Research Institute

San Diego Biomedical Research Institute is a non-profit organization founded in 2014 by Dr. Joanna Davies. Our mission is to find new ways to predict and prevent cancer, diabetes and HIV infection, and to accelerate medical advances that maintain health and improve quality of life. This is our first monthly newsletter. In each newsletter we plan to provide you with a window into an area of our

research that we hope will intrigue you.

Who are we and what do we do? Scientists at San Diego Biomedical Research

Institute work on a variety of disease areas. Specifically, multiple sclerosis, type 1 diabetes, systemic lupus erythematosus, obesity, type 2 diabetes, cancer, muscle health, HIV-associated neurological disorder, and HIV vaccine. There are nine lead scientists, also called Principal Investigators (PI), at San Diego Biomedical. Each PI is a specialist in one disease area. Although these diseases are different from each other, they are all associated with dysregulation in the immune system, the inflammatory profile and metabolism. This means that the causes and symptoms of these diseases overlap. In brainstorming sessions, our scientists teach each other about advances in their own field, with the idea that other disease areas might benefit from similar strategies.



A photo of the main lab at SDBRI, where scientists think, do experiments and make discoveries.

If you would like to know more about our research or visit our facility please contact us by

Email- info@sdbri.org or our Website- www.sdbri.org

Connections Between Disease Areas



At SDBRI, we understand that although certain diseases appear to be different, they are in fact interconnected in many ways. Three examples of **autoimmunity** are **type 1 diabetes**, **systemic lupus erythematosus (SLE)**, and **multiple sclerosis**. Autoimmunity results when the immune system mistakes the body's own tissue for a pathogen and destroys it. **Type 2 diabetes** is different from type 1 diabetes and is often associated with **obesity**. Obesity is also a risk factor for **breast cancer** development. People with chronic diseases including, cancer, HIV infection and autoimmunity experience **cachexia**, a profound muscle wasting syndrome. **HIV infection** also causes a large spectrum of **neurological disorders**, aggravated in the aging population. A successful **vaccine** is needed to prevent infection, and that will require novel vaccine development and a better understanding of the immune response to the vaccine.

Next Issue:

Take a closer look at Type 1 Diabetes.

Location

10865 Road to the Cure
Suite 100
San Diego, CA 92121

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GIVING EVERY PATIENT A FIGHTING CHANCE