Array 1 - Antibody - Gluten Sensitivity Screen™ The mucosal immune system (saliva) acts as the primary host defense against the physical environmental factors (food, airborne molecules, viruses and commensal antigens), and plays a significant role in barrier functions. Secretory immunoglobulins IgA and IgM are important components of the first line of defense that operates at all mucosal sites.

Array 2 - Antibody - Intestinal Antigenic Permeability Screen™ Research confirms that the root cause for many of undesired immune reactions originates in the gastrointestinal tract. GI tract abnormality can compromise the integrity of the gut barrier and increases the entry of undigested antigens into circulation, thus challenging the immune system. Reaction to these antigens activates immune and inflammatory cascades, resulting in the production of proinflammatory cytokines, an array of antibodies, and increased intestinal barrier permeability (or "leaky gut" syndrome).

## Array 3 - Antibody - Wheat/Gluten Proteome Sensitivity &

Autoimmunity™ Current testing for Gluten Sensitivity and Celiac disease includes serum IgG and IgA against gliadin and tissue transglutaminase. These antibodies are measured against minor components of a wheat protein called alpha-gliadin. However, wheat proteins consist of alpha-gliadin, omega-gliadin, glutenin, gluteomorphin, prodynorphin, and agglutinins, any of which has a capacity to challenge the immune system. Because of this heterogeneity of gluten proteins and peptides, multiple variations in T-cell responses may occur against them. Recent medical research indicates that a large number of gluten epitopes, may be implicated in the development of Gluten Sensitivity, Celiac disease and other associated conditions.

Array 4 - Antibody - Gluten-Associated Sensitivity & Cross-Reactive Foods™ Once a patient is properly diagnosed as Gluten-Sensitive or having Celiac disease, he/she is instructed to adhere to a gluten-free diet. Brochures, books and websites help patients with this seemingly difficult process. However, a significant percentage of these patients will continue to have gluten-like complaints even after being on a gluten-free diet for months. Most countries define "gluten-free" products based on the recommendation of the Food and Agricultural Organization of the United Nations and World Health Organization. This codex alimentarius allows the inclusion of up to 0.3% protein from gluten containing grains in the foods labeled "gluten-free." If the sensitive body is exposed to 0.3% protein, the immune system will recognize and react to the protein.