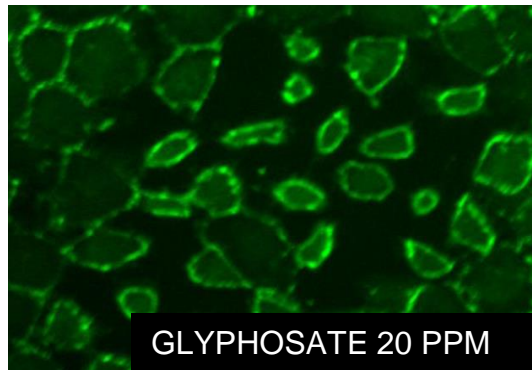
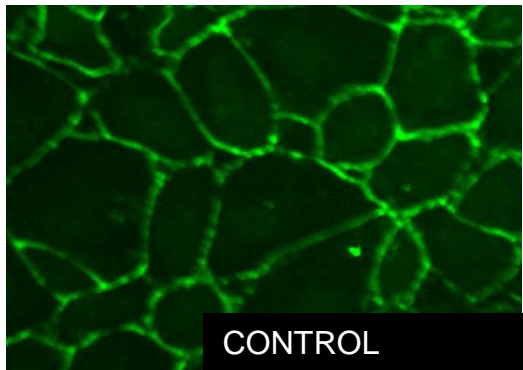




Glyphosate, the most pervasive toxin in our food and water systems is destroying your bodies barrier systems by stimulating the production of **Zonulin Occludins Toxin (ZOT)**

2 billion kg of glyphosate used in soils worldwide in 2015 alone

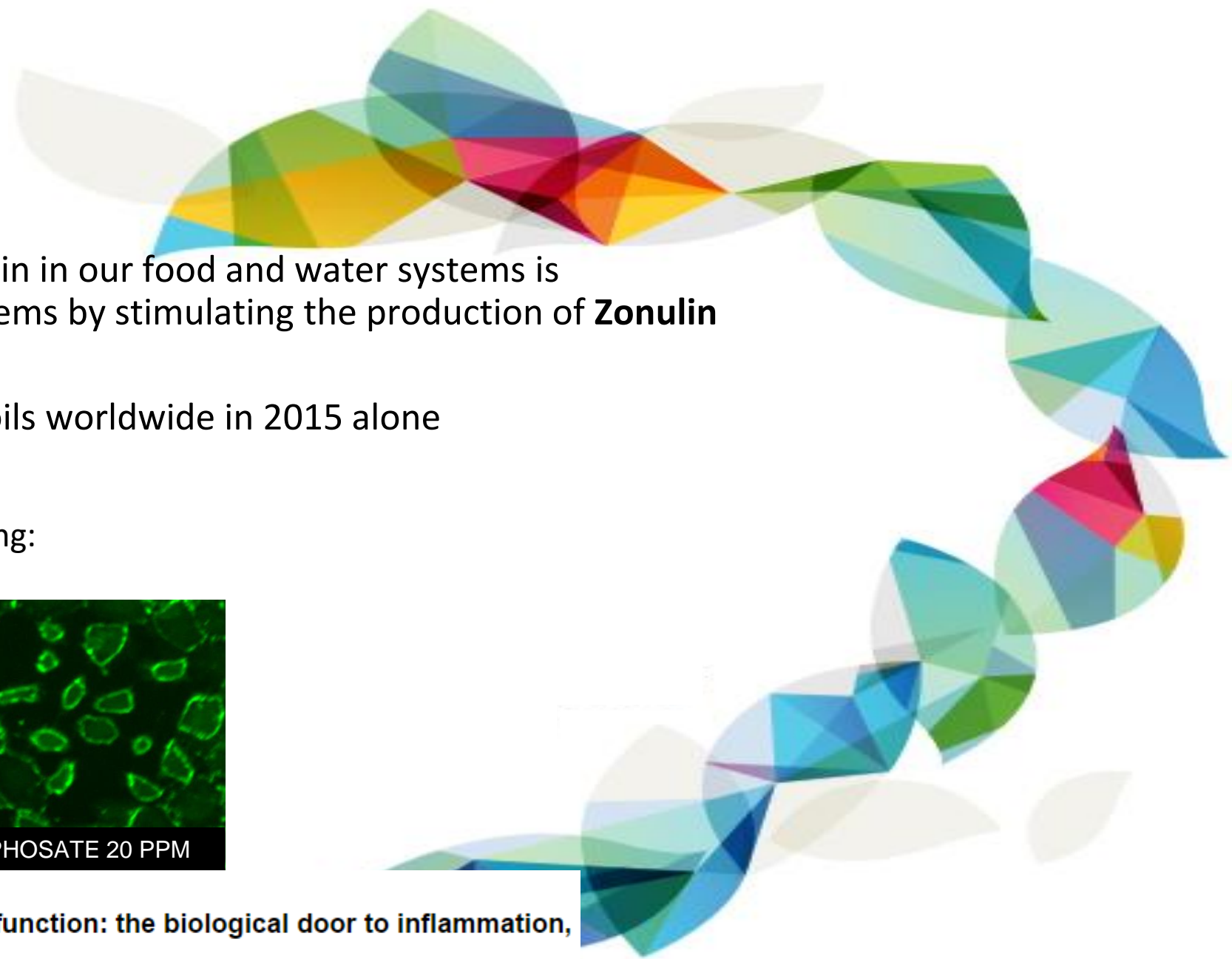
The tight junctions of the intestinal lining:



[Physiol Rev. 2011 Jan;91\(1\):151-75. doi: 10.1152/physrev.00003.2008.](#)

Zonulin and its regulation of intestinal barrier function: the biological door to inflammation, autoimmunity, and cancer.

[Fasano A¹](#).



Behind the frontlines of that leaky membrane: The Gastrointestinal Associated Lymphoid Tissue (GALT)



GALT: 60-70% of your immune system is in the gut membrane system

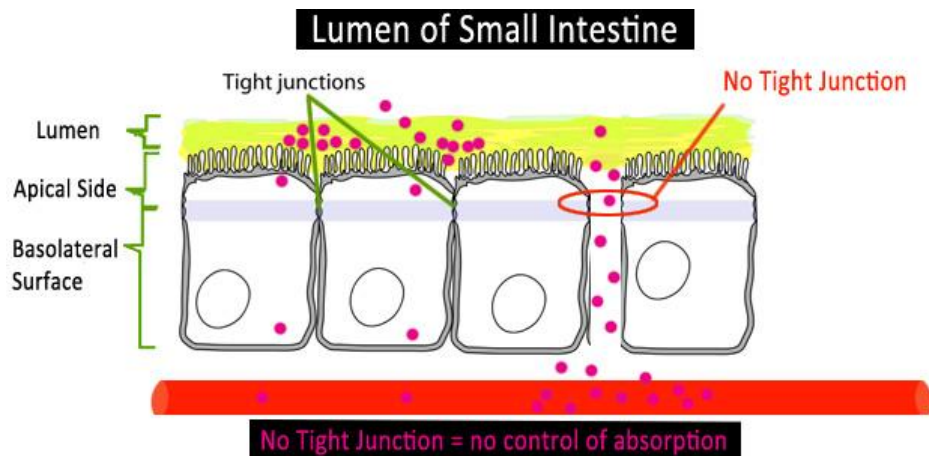
GALT: runs from your sinuses to your rectum

GALT: Produces 80% of the body's antibodies

Intercellular Tight Junctions- Firewalls of Defense

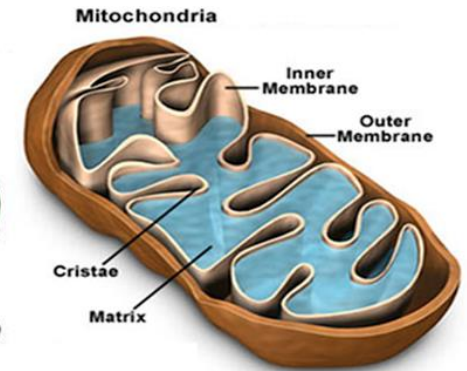
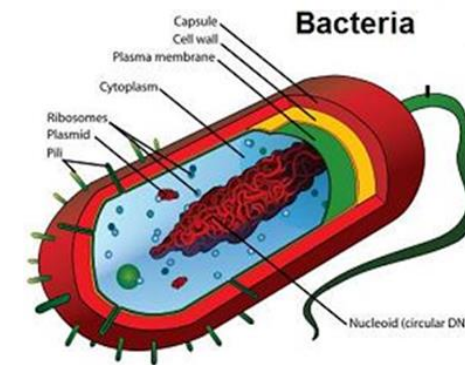
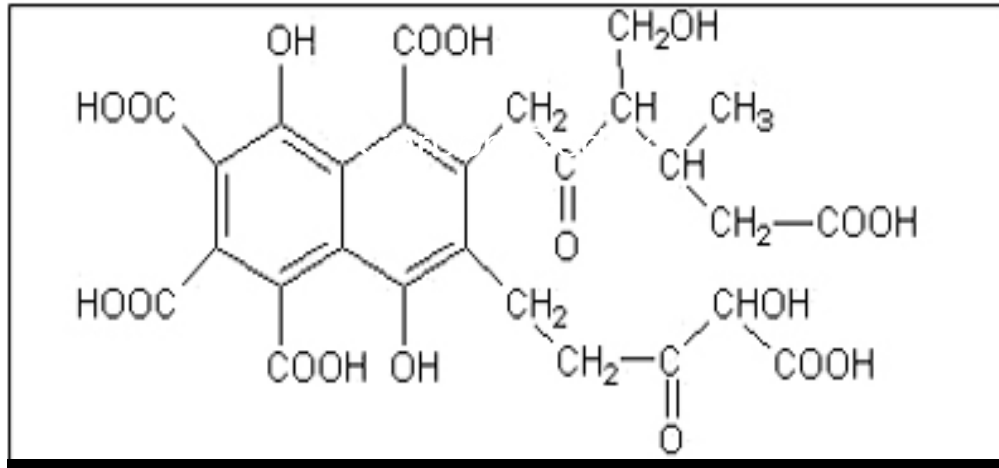
Tight junctions seal adjacent epithelial cells in a narrow band just beneath their apical surface. They consist of a network of proteins.

Tight junctions limit the passage of molecules and ions through the space between cells, so most materials must actually enter the cells in order to pass through the tissue. This pathway provides tighter control over what substances are allowed through.



Bacterial Metabolites: Carbon-Based Redox System

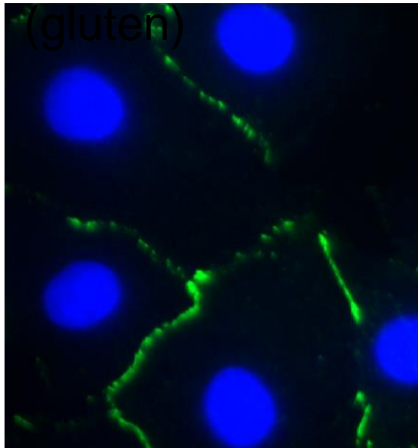
- Each bacterial species (30,000 species) creates a unique subset of carbon metabolites during the digestive process



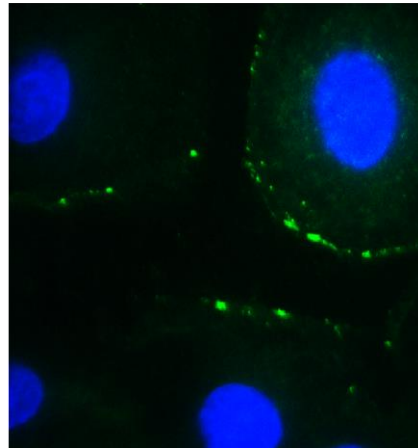
- Terrahydrite: over 1 million variations of this carbon-based redox signaling system
- These function as an interspecies molecular communication network that can help maintain the acute inflammatory response capacity to respond to injury



Control

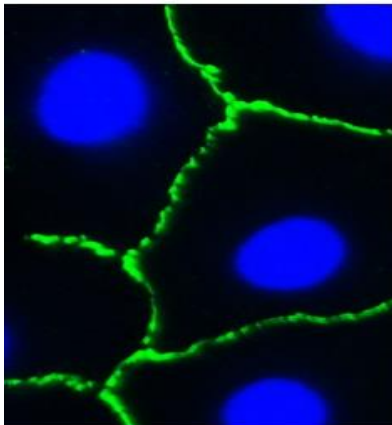


Gliadin

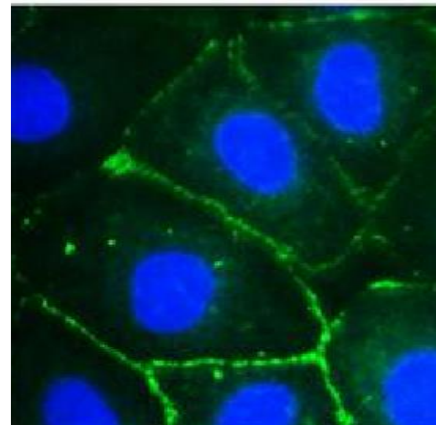


Journal of Nutrition and Food Sciences, our first peer-reviewed journal article, Protection Against Gluten-mediated Tight Junction Injury with a Novel Lignite Extract Supplement

Restore

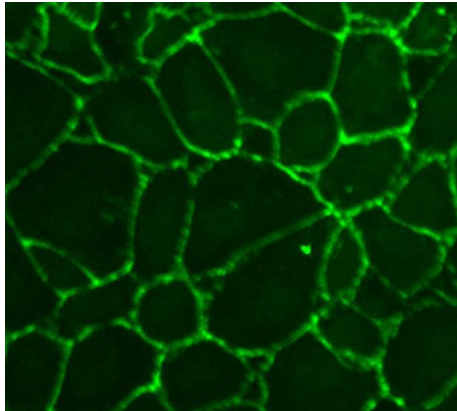


Gliadin(gluten) and Restore

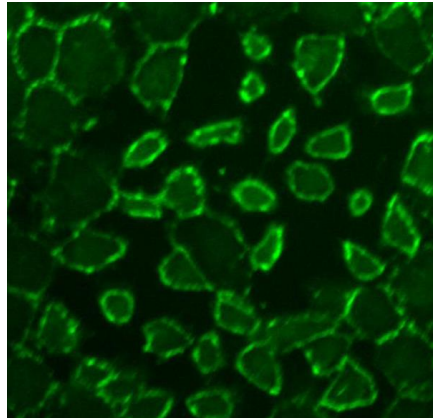




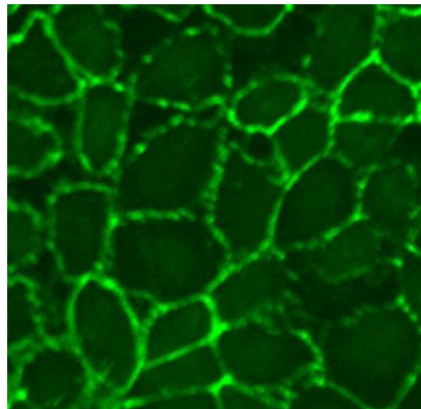
CONTROL



GLYPHOSATE



GLYPHOSATE and Restore



**Journal of Clinical Nutrition
Dietetics**, our second peer-reviewed
journal article, [Protective Effects of
Lignite Extract Supplement on
Intestinal Barrier Function in
Glyphosate-Mediated Tight Junction
Injury](#).

