

I've just been learning about the use of bacillus spores to heal the gut. They are found everywhere in a natural environment, so they can end up in your food if you eat local organic food & don't obsess over cleanliness (killing every germ). They are very tough and long lasting, surviving the acidity of the stomach, which most probiotics don't survive (that's one purpose for stomach acidity). But when they enter the alkaline small intestine they come back to life and have numerous benefits to the microbiome. From my notes:

Bacillus Spores enlivened:

- produce antibiotics,
- out-compete pathogenic organisms,
- feed beneficial orgs.
- modulate the immune response,
- produce full range of B vitamins,
- increase short chain fatty acid production from fiber and resistant starch, very beneficial for bowel.
- produce digestive enzymes
- repairs leaky gut

Then as they pass through the colon they revert back to the spore form as they exit the body. They have important functions in the microbiome of all animals and even insects. The environment is just the vector for passing them from one creature to the next. Apparently they don't linger in the bowel (not sure about this), so they need to be regularly replenished from the environment, which can be a problem for many people these days who live in a more or less clean environment. They don't multiply in fermented foods because of the acidity, so only show up in fermented food if they are on the food or drop in from the air. You get them from having lots of contact with nature, apparently.

And now there is a company that produces a mix of beneficial spores in a capsule
MegaSporeBiotic - <http://www.gomegaspore.com/>

They are only available from health professionals. I discovered that the two local naturopaths that I know both use the product with their patients. They could be the secret to overcoming persistent gut issues. There's a long list of benefits on the website. Well worth learning about. The surprising thing is that their value has been recognized for many years in other countries, and certain varieties have been used to overcome common problems in pigs, chickens, and even fish.