

Maximizing Yeast's Health Potential

Lesaffre Human Care is presenting a new probiotic yeast, for people suffering from intestinal discomfort and Irritable Bowel Syndrome (IBS).

by Robin Wyers

Lesaffre Human Care has broadened its range of probiotic yeasts with Lynside Pro GI+, a probiotic yeast intended for people suffering from intestinal discomfort such as that caused by Irritable Bowel Syndrome (IBS). Lynside Pro GI+ is a *Saccharomyces cerevisiae* yeast that acts to target intestinal discomfort. It was selected by Lesaffre among 6,000 proprietary strains and has been registered with the French National Collection of Microorganism Cultures (CNCM). A patent application covering many different areas has been filed. Furthermore, many preclinical trials and one large clinical trial have been conducted successfully with Lynside Pro GI+, and two other clinical trials will have been carried out by end of 2011. A European

article 13.5 functional health claim has been submitted to EFSA, regarding the new probiotic yeast, Lynside Pro GI+. The proposed health claim is: "Noticeably reduces digestive discomfort after 4 weeks of consumption."

Scientific Support

Since 2005, preclinical trials (*in-vitro*, *ex-vivo*, *in-vivo*) have been ongoing with Lynside Pro GI+. These trials have demonstrated that the strain:

- survives transit through the gastrointestinal tract
- has anti-inflammatory properties
- reduces the perception of intestinal pain

One of the preclinical trials on the anti-inflammatory potential of several non-pathogenic yeast strains was published the

World Journal of Gastroenterology (May 2010). Two oral presentations were given at the American Digestive Disease Week convention in May 2010. The first presented the results of Lynside Pro GI+ on the modulation of bowel pain in preclinical, while the second presented interesting effects of Lynside Pro GI+ on the adhesion of entero-invasive *Escherichia. coli* in patients with Crohn's disease.

In 2008, a large placebo-controlled, double-blind randomized clinical trial was conducted with an international specialist of inflammatory bowel diseases; Professor Pierre Desreumaux of the University of Lille (France). In the clinical trial, 200 volunteers with symptoms of IBS took 500 mg/day of Lynside Pro GI+ (8x10⁹ cfu/g) for 8 weeks. The scientists showed that:

- the intestinal pain and discomfort are greatly relieved after 4 weeks of taking Lynside Pro GI+ (significant difference between placebo and active product).
- Lynside Pro GI+ has favorable effects on the bowel disorders caused by IBS (abdominal/intestinal pain and discomfort, bloating, flatulence and constipation).

Professor Desreumaux will present these clinical results at the United European Gastroenterology Week in Barcelona (Oct 2010). Publication will follow in 2011.

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Relative Positioning of SC BOULARDII AND LYNside PRO GI+

	Boulardii	Pro GI+ (IBS)
Main Benefit	Traveller & Antibiotic Associated Diarrhoea	Reduction of Gut Discomfort (clinically tested on 200 IBS)
Duration	Acute use and preventive (a few weeks)	Chronic use (a few months)
Type of yeast	<i>S. Cerevisiae</i> var <i>Boulardii</i>	<i>S. Cerevisiae</i> . Specific strain from Lesaffre n°CNCM-3856
CFU/g	typically 20-40 Billions/g	typically 8 Billions/g (larger cell)
Different Nuclear Receptor Activation	PPAR γ : (peroxisome proliferator-activated (PPAR) receptor that indicates one mode of action through molecular biology	PPAR α : peroxisome proliferator-activated (PPAR) receptor that indicates one mode of action through molecular biology
Stability	2 years at room temperature in original industrial pack	2 years at room temperature in original industrial pack
Patent	No patented protection in the area of diarrhea unless the origin is inflammatory	Patent pending by Lesaffre WO 2009/103884 A2
Usual Dosage	250 mg/ day = 5 Billions cfu/day	500 mg/day = 4 Billions cfu/day
Positioning to the customer	Well known strain (> 40 clinicals) and very effective. Very stable and economical, good for mass market, alone or blended with other probiotic microorganisms	New strain developed and owned by Lesaffre. Not positioned on diarrhoea but unique positioning on the reduction of gut discomfort with chronic intestinal troubles, including IBS.
Competition	Primarily other Boulardii	No other yeast and certainly not the Boulardii. Bacteria strains tested against IBS

