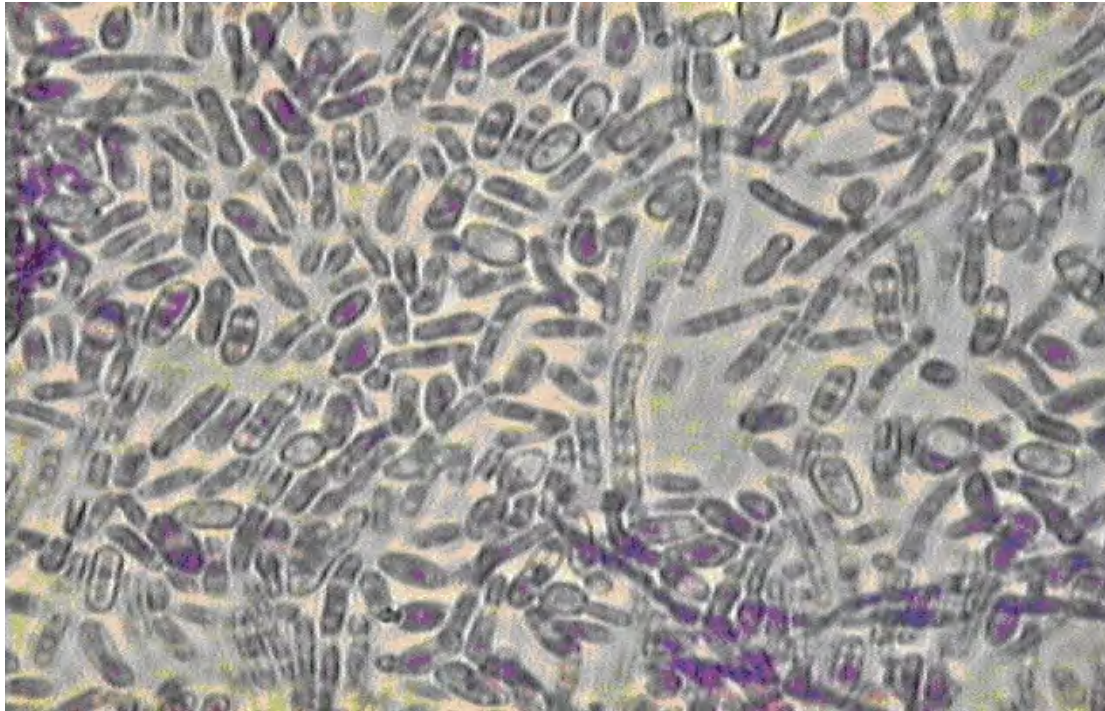


PROBIOTIC LACTIC YEAST®

NEW GENERATION PROBIOTIC

KLUYVEROMYCES B0399® (Turval B0399®)

Kluyveromyces marxianus fragilis B0399



"K. marxianus B0399® demonstrated a number of beneficial and strain specific properties desirable for application as a probiotic", research done by University of Bologna, Italy and University of Reading, UK and published by the American Society for Microbiology in the scientific journal Applied Environmental Microbiology, 2012 Feb; 78 (4)

APPROVALS AND RECOGNITIONS BY NATIONAL AND INTERNATIONAL AUTHORITIES:



for animal use:



Kluyveromyces chosen by: European Scientific
Committee, ESOF 2020 - Trieste, Italy



FRIULI INNOVAZIONE (UD)
(National AREA Science Park)
+39 0432 1637213
E-mail: info@turval.com
Web site: www.turval.com



Rua Comendador Parada 57 Sala 3
Bairro CENTRO
CEP 18170-000 Piedade (SP)
telefone 85 9 97491215
franco@turvalbrasil.com.br

HUMAN NUTRITION



MILANO

NUTRIRE IL PIANETA
ENERGIA PER LA VITA
FEEDING THE PLANET
ENERGY FOR LIFE

EUFYR [COOP, ITALY], THE FIRST COMMERCIALISED PROBIOTIC YOGURT CONTAINING KLUYVEROMYCES B0399®, WAS CHOSEN FOR THE UNIVERSAL EXHIBITION EXPO 2015 AS AN EXAMPLE OF LEADING INNOVATION IN FUNCTIONAL DAIRY PRODUCTS.

NEW GENERATION PROBIOTIC YOGURT WITH
PROBIOTIC LACTIC YEAST® COOP ITALY



PROBIOTIC LACTIC YEAST® BROUGHT MULTIPLE AWARDS TO YOGURTS PRODUCERS FOR THE MOST INNOVATIVE PRODUCT

EUROPEAN AWARD

IN 2014 "EUFYR POMEGRANATE", PRODUCED BY ONE OF THE BIGGEST ITALIAN RETAILERS, COOP – ITALY, WINS PRESTIGIOUS PLMA'S INTERNATIONAL "SALUTE TO EXCELLENCE" AWARD IN AMSTERDAM; EUFYR IS THE WINNER AMONG 16 EUROPEAN COUNTRIES FOR THE BEST INNOVATION IN PRIVATE LABEL

Recognizing Innovation in Private Label

Welcome to PLMA's International Salute to Excellence Awards, honouring retailers for their commitment to their own brands and giving recognition to their innovative private label products. This year, more than 210 products were submitted by 45 retailers from 16 countries. These products covered 30 different categories of food, health and beauty and household products. Entries were evaluated by a panel of professional judges for taste, appearance, presentation, and value for money.

PLMA is proud to salute this year's winning retailers and their products, demonstrating once again the creativity and consumer responsiveness to private label today.



EASTERN EUROPEAN AWARD

IN 2015 KLUYVEROMYCES B0399® BRINGS THE SECOND INTERNATIONAL AWARD TO THE INNOVATIVE PROBIOTIC FERMENTED MILK BEVERAGE "JOGOFIR", PRODUCED BY THE AGRICULTURAL COMPANY "SAVA KOVACEVIC - DAIRY DANA" (SERBIA).
82nd INTERNATIONAL AGRICULTURAL FAIR OF NOVI SAD, SERBIA NOMINATED JOGOFIR THE "CHAMPION OF QUALITY AND INNOVATION"



FOOD SUPPLEMENTS

NUMEROUS PROBIOTIC BRANDS BASED ON TURVAL B0399®
 DIFFERENT FORMULAS SUCCESSFULLY COLONISE WORLD MARKET

ITALIA



CAPSULES & DROPS
 PAEDIATRICS & ADULTS

POWDER BAGS:
 K.MARXIANUS, VITAMINS,
 MINERALS, ENERGIZERS
 ADULTS ONLY



CAPSULES PAEDIATRICS &
 ADULTS



CAPSULES
 PAEDIATRICS & ADULTS



DUAL
 GIT KIT:
 CAPSULES -LIOPHILIZED PAPAYA
 CAPSULES -K.MARXIANUS B0399
 PAEDIATRICS & ADULTS



CANDIDIASIS KIT:
 CAPSULES - INTESTINAL FLORA BALANCE
 OVULES - VAGINAL FLORA BALANCE
 ADULTS



PROBIOTIC CHOCOLATE PRODUCTS
 PAEDIATRICS & ADULTS

USA



INDIVIDUALLY WRAPPED SOFT
 CHEWS/CARAMELS
 PAEDIATRICS & ADULTS



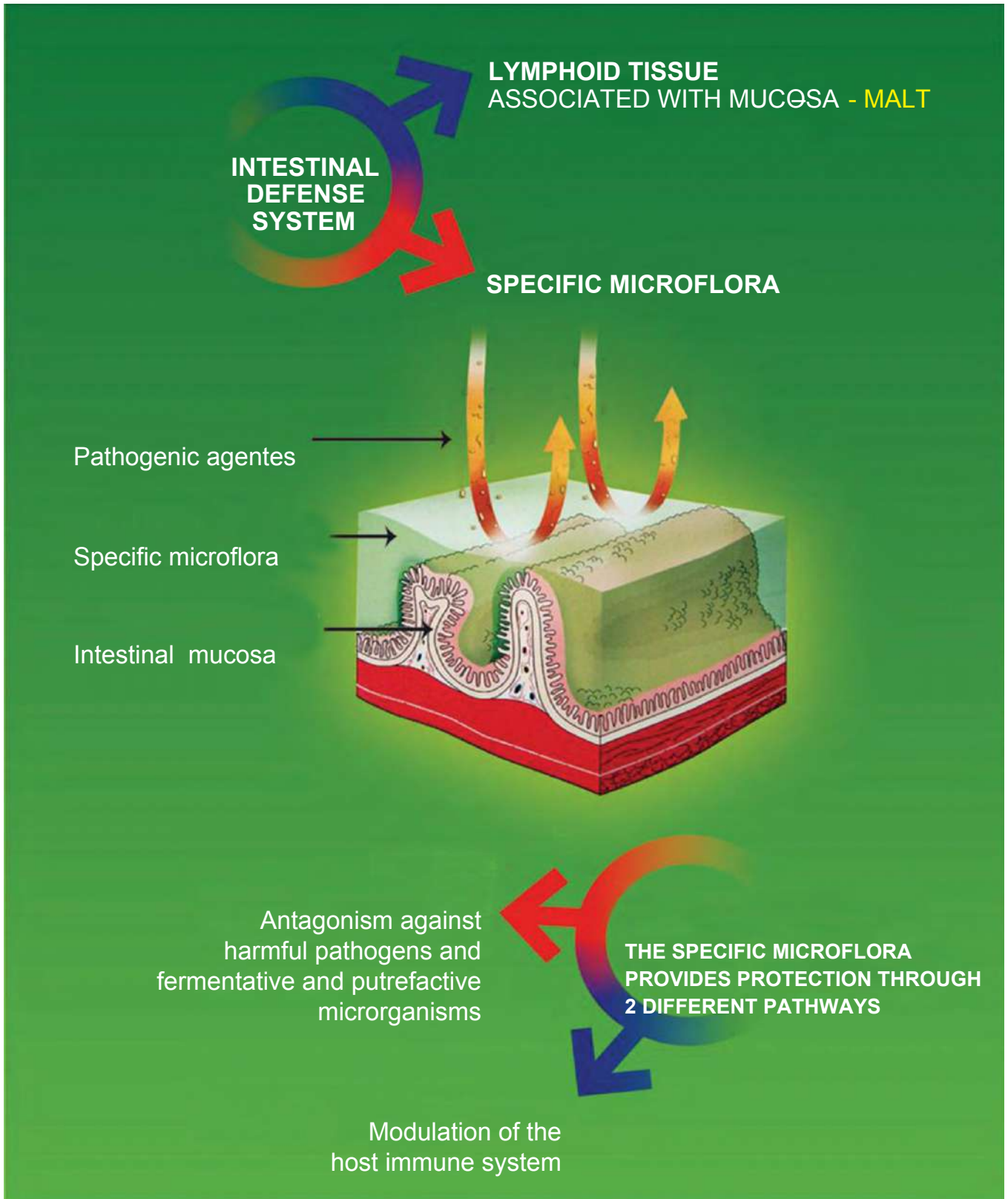
CAPSULES
 PAEDIATRICS & ADULTS

CANADA



CAPSULES
 PAEDIATRICS & ADULTS

GASTROINTESTINAL MUCOSA IS ONE OF THE MAIN SITES OF ENTRIES OF PATHOGENIC GERMS



PROBIOTIC LACTIC YEAST®, *KLUYVEROMYCES B0399*® IS DIFFERENT FROM COMMONLY USED LACTOBACILLUS, BIFIDOBACTERIUM & SACCHAROMYCES; IT IS CAPABLE OF PERFORMING BIOREGULATORY ACTION & REBALANCING OF THE INTESTINAL FLORA THROUGH:

- ◆ Stimulation of development of good endogenous flora (particulary Bifidobacteria) with only 10 millions CFU/day
- ◆ Support and fine modulation of immune system
- ◆ Natural resistance to common bacterial antibiotics
- ◆ Lactose degrading and lactose fermenting ability

- **It is the only yeast probiotic that can be defined "NATURAL" & "GUT FRIENDLY" because:** - It efficiently stimulates development of the good gut flora (e.g. endogenous Bifidobacteria), even at low dosage (>100 times less then *S.boulevardii* & *Bifidobacteria*) (trial n.143)
 - It's naturally found in everyday food products and human gut flora (Ref.Gouba et all., 2015)
- **"IMPROVE THE BALANCE OF THE GUT FLORA"** : health claim approved by the Italian Ministry of Health at 03.12 2009 conform at guideline about pre/probiotic (Dec. 2005)
- **IT MODULATES IMMUNE RESPONSE** through: a) fine modulation of the level of anti- and pro-inflammatory cytokines, possibly attenuating the proinflammatory effect in inflammatory disorders such as irritable bowel syndrome (IBS) and Celiac Disease, among others; b) as a rich source of PREBIOTICS, it gives rise to immunostimulating beta-glucans and oligosaccharides (GOS, MOS, FOS) (trial n. 143, 75)
- **DIGESTS LACTOSE**, thanks to the elevated production of B-galactosidase (the enzyme for lactose digestion); it is particularly recommended for lactose intolerant individuals (trial n. 35)
- **IT NATURALLY RESISTS ANTIBIOTICS AND PREVENTS THEIR MOST COMMON SIDE EFFECT** being yeast, not a bacterium, *K. B0399*® has such molecular and subcellular structures that are not damaged by commonly used antibiotics, this enables to prevent or restore intestinal imbalances caused by antibiotic therapy and associated diarrhea. (trial n. 84)
- **SUPPORTS REDUCTION OF GASTRO-INTESTINAL (GI) DISCOMFORT AND IMPROVES THE CHARACTERISTICS OF EVACUATION AND THE GLOBAL ASSESSMENT OF RELIEF OF IBS SYMPTOMS:** various human studies substantiate a causal relationship between the consumption of *Kluuveromyces B0399* and the improvement of GI symptoms of discomfort. (trial 16 , 125, 132, 138)
- **HAS STRONG ANTIMICOTIC ACTION** (particularly against "Candida albicans") and **EFFICIENTLY COMPETE AGAINST PATHOGENS** through: a) strong adherence to epithelium, b) direct competition for nutrients, c) promotion of epithelial cell growth and reinforcement of the major gut barrier against infections, d) acidifies local environment making it unsuitable for the growth of certain pathogens such as *E.coli*) (trial 57, 96A, 129, 143)
- **EFFICIENTLY COLONIZES INTESTINE** adhering to enterocytes of the intestinal epithelium (trial n. 143)
- **SURPASSES THE GASTRIC BARRIER** (thanks to the chitin constituent of the cell wall) **AND ARRIVES IN THE INTESTINE ACTIVE AND ALIVE** (even at low pH, such as pH3) (trial 35, 130.4B, 79B, 130.1B, 125)
- **SUPPORTS ORAL HEALTH:** i) reduces and prevents HALITOSIS; ii) prevents oral dysbiosis and the related inflammatory states (e.g. periodontitis).

COMPARISON OF THE PROPERTIES AND INDICATIONS OF *KLUYVEROMYCES B0399*® AND *LACTOBACILLUS P.* & *BIFIDOBACTERIUM SPP.*

PROPERTIES AND INDICATIONS	KLUYVEROMYCES B0399 ®	LACTOBACILLUS SPP. BIFIDOBACTERIUM SPP.
Cell type	THE YEAST (Eukaryotic)	BACTERIA (Prokaryotic)
Passing gastric barrier alive and active	CHITIN BASED CELL WALL	NOT DECLARED
Production of useful substances for the body	Oligosaccharides, oligopeptides, such as: <ul style="list-style-type: none"> - β GALACTOSIDASE (LACTASE). Enzyme responsible for breaking down lactose - B-glucans and oligosaccharides: GOS, FOS, MOS - other functional enzymes such as: B GLUCANASE, INULINASE; enzymes for oligosach. production 	Example for <i>Lactobacillus reuteri</i> : REUTERIN (anti-microbial substance of the broad spectrum)
Resistance to infectious agents (Bacteriophages)	HIGH	LOW
Mandatory conservation in fridge	NO	YES
Storage temperature	3-25 ° C	3-8 ° C
Administration for those who are lactose intolerant	SPECIFICALLY INDICATED	ALLOWED
Antibiotic susceptibility	NONE (due to its "yeast" nature)	Susceptible to most commonly used antibiotics
Dioxide (CO ₂) production in the gut	Insignificant level	YES
Production of ATP (energy available to the organism)	HIGH (2 ATP / 1 C ₆ H ₁₂ O ₆)	LOW (1 ATP / 1 C ₆ H ₁₂ O ₆)
Digestion of lactose	HIGH (the production of β-GALACTOSIDASE)	HIGH (the production of β-GALACTOSIDASE)
Dosage - Therapeutic minimum and its effect upon gut flora	LOW ~ "natural"; efficiently colonise intestine even when taken at low dosage such as: 10 million CFU / day., respecting the natural microflora of the patient's bowel	HIGH drastic impact on the natural microflora due to the high dosage suggested (10 billion CFU / day)
Anti-mycotic action (anticandidiasis)	SPECIFIC: Against - <i>Candida albicans</i> proposed mechanism: by contact inhibition	GENERAL: proposed mechanism: produce microbicidal molecules (example reuterin)

COMPARISON OF THE PROPERTIES AND INDICATIONS OF *KLUYVEROMYCES B0399*® AND *SACCHAROMYCES BOULARDII*

PROPERTIES AND INDICATIONS	KLUYVEROMYCES B0399®	SACCHAROMYCES BOULARDII
β-galactosidase activity	Yes +++	NO
Ability to produce lactic acid and positively reduce the intestinal pH	Yes +++	NO
Side effects	NOT DETECTED	YES (not recommended for fragile patients) *
Increase the number of good bacteria of the gut natural flora (bifidobacteria)	Demonstrated	NO
Dosage - Therapeutic minimum and its effect upon gut flora	LOW ~ “natural” 10 million CFU / day	HIGH - 10 billion CFU / day drastic impact on the natural microflora
Is it frequently encountered in every-day food	YES (is in many cheeses and naturally fermented kefir)	NO (comes from lichens)
Anti-mycotic action (anti-candidiasis)	SPECIFIC: Against - <i>Candida albicans</i> proposed mechanism: contact inhibition	SPECIFIC: Against <i>Candida albicans</i> ; by antimycotic effect of capric acid

* Pag 24 of EFSA QPS2013 update – EFSA Journal;

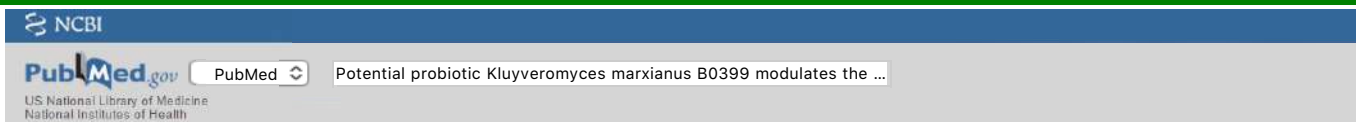
TABLE SHOWING THE COMPARISON BETWEEN ANTIBIOTIC RESISTANCES

ANTIBODY	TYPE	KLUYVEROMYCES B0399®	LACTOBACILLUS REUTERI
Bacitracin		R	U
Colistin		R	U
Penicillin		R	R
AMP(Ampicillin)		R	R
Oxytetracycline		R	U
AMX(Amoxicillin)		R	R
GM (Gentamicin)		R	I
CMP (Chloramphenicol)		R	U
Erythromycin		R	S
Tetracycline		R	S
Clorotetracycline.HCL		R	U
Tartared Tilosin		R	U
Nalidixic Acid (Chinolons)		R	R
Lincomycin (Lincomicins)		R	U
Rifampicin (Rifamycins)		R	S
Quinupristin/Dalfopristin		R	U
Linezolid (Oxazolidinones)		R	U
Teicoplanin (Glycopeptides)		R	U
Trimethoprim		R	U
Sulfadiazine		R	U

Legend: R=Resistant; I= Intermediate; S=Sensible; U=Undeclared

Trial n. 143

Maccaferri S1, Klinder A et al.; University of Bologna, Italy & University of Reading, United Kingdom

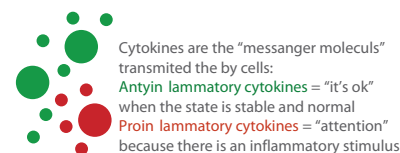


Appl Environ Microbiol. 2012 Feb;78(4):956-64. doi: 10.1128/AEM.06385-11. Epub 2011 Dec 9.

Potential probiotic Kluyveromyces marxianus B0399 modulates the immune response in Caco-2 cells and peripheral blood mononuclear cells and impacts the human gut microbiota in an in vitro colonic model system.

Abstract

the aim of this study was to broadly investigate the beneficial properties of the lactic yeast Kluyveromyces marxianus (formerly Kluyveromyces fragilis) B0399. Potential probiotic traits of K. marxianus B0399 were investigated: adhesion and immune modulation, and the effect of the administration of 10(7) CFU/day of K. marxianus B0399 on the composition and metabolic activity of the human intestinal microbiota in a 3 stage continuous culture system simulating the human colon. We demonstrated that this strain was highly adhesive to human enterocyte like Caco 2 cells and modulated the immune response, inducing proinflammatory cytokines in peripheral blood mononuclear cells (PBMCs). In the presence of inflammatory stimulation with lipopolysaccharide (LPS), K. marxianus B0399 provoked decreases in the levels of production of proinflammatory cytokines in PBMCs and Caco 2 cells, thus ameliorating the inflammatory response. Furthermore, K. marxianus B0399 induced increase in the bifidobacterial concentration ...The effects of K. marxianus B0399 on adhesion, immune function, and colonic microbiota demonstrate that this strain possesses a number of beneficial and strain specific properties desirable for a microorganism considered for application as a probiotic.



State of Inflammation prevalence of proinflammatory cytokines
State of Equilibrium between pro- and anti-inflammatory cytokines



- The cytokines are normally in balance.
- When an inflammatory stimulus intervenes, pro-inflammatory cytokines prevail (red)
- Kluyveromyces B0399 induces the pro-inflammatory cytokines' concentration drop, restoring the balance

Trial n. 130.1

Prof G. Mustacchi, Cancer Center health services n 1 Triestina, University of Trieste, Italy

EVALUATION OF THE COLONIZATION CAPACITY OF THE GASTROINTESTINAL TRACT IN HEALTHY SUBJECTS, AFTER THE UTILIZATION OF KLUYVEROMYCES B0399, THROUGH EXAMINATION OF FAECES.

SUMMARY

The present study evaluates the colonization capacity of Kluyveromyces marxianus B0399. The product was administered to 17 healthy volunteers for 14--day period. The feces of the healthy individuals were analyzed to evaluate the presence of Kluyveromyces B0399, at time T0, (before the start of the administration) and at the end, at time T14 (after 14 days). The healthy subjects' consumption of K. B0399 at the dosage of 20 million CFU/die for 2 weeks resulted fully sufficient for gut colonization, with no collateral effects.

Results: 16/17 of enlisted subjects gave assessable results (94.12%) At T14, 100% sample results positive for the yeast colonisation, with a significant statistical increment with respect to T0. Similarly, the quantitative assessment between T0 and T14 highlight a statistically significant difference in number of yeast colonies, with the average increment ≈ 3 logarithms (range from 1 to 6).

Detected colonization demonstrates the resistance towards the gastric barrier and hypothesizes that Kluyveromyces B0399 will efficiently colonize intestine even if administered with sensibly lower dosages than those examined (for example 5-10 million CFU/day).

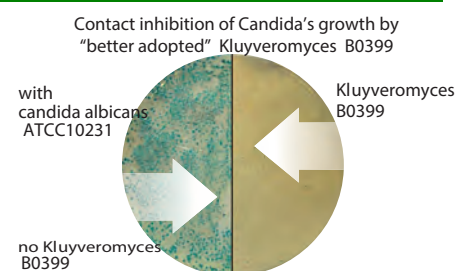
Trial n. 96A

Dr. T. Cettolo, Dr. L. Riul – Laboratory Specialized in Microbiology of the ASA CCAA of Udine, Italy

IN VITRO TEST ON THE INFLUENCE OF LACTIC YEAST TYPE (KLUYVEROMYCES MARXIANUS FRAGILIS B0399) ON THE DEVELOPMENT OF CANDIDA ALBICANS ATCC10231.

SUMMARY

The test demonstrated that Candida does not and colonizes the plate in the presence of Kluyveromyces B0399; similarly if Kluyveromyces is added (administered) before Candida, the growth of Candida will be prevented (inhibited) by previously populated Kluyveromyces B0399, The results imply that K. marxianus has better adhesiveness and develop on the majority of the surface while inhibiting the growth of the pathogenic yeast.



Trial n. 75

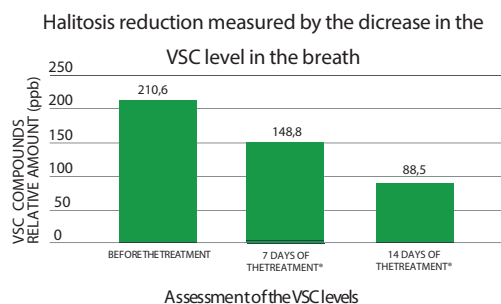
Dr. P. Nobili, Dr. A. R. Zanvit – Biological Dentistry Department, Italian Dental Institute – Milan, Italy

HALITOSIS TREATMENT WITH KLUYVEROMYCES B0399

SUMMARY

A population of patients of both sexes affected by halitosis, with ages 18 65, were subjected to the halitosis treatment through the administration of antibiotic resistant lactic yeasts, Kluyveromyces B0399 at the dosage 10/20 million CFU/capsule/die and the evaluation of the VSC (Volatile Sulphur Compounds) levels in the breath with a digital halimeter.

Results: 3 cycles of measurements during the trial: before the treatment, 7 days after and 14 days after the treatment; 100ppb is taken for the threshold level; if VSC count is superior, halitosis is considered.



Trial n.125

Pr. Roda – Clinical medicine department, Bologna University, Italy

EFFECTS OF A YOGURT CONTAINING KLUYVEROMYCES B0399® ON PATIENTS WITH IRRITABLE BOWEL SYNDROME—A DOUBLE” BLIND, RANDOMIZED, PLACEBO CONTROLLED CLINICAL STUDY

SUMMARY

This study evaluates the effects of a yogurt formulated with addition of Kluuveromyces B0399 10/20 million CFU/packaging, n patients suffering from IBS. A double blind, monocentric study, controlled against a yogurt containing *Streptococcus t*, *Lattobacillus b* and *Bifidobacterium lactis BB12*, in parallel groups of patients affected by IBS. Total patients 92; active treated group 46; control group 46. The study comprises a daily collection of data for every patient during 8 weeks trial period divided in 3 phases: 2 weeks pre treatment or “basal”, 4 weeks “treatment” and 2 weeks post treatment or “washout”.

Acts on addominal pain, in patients with IBS

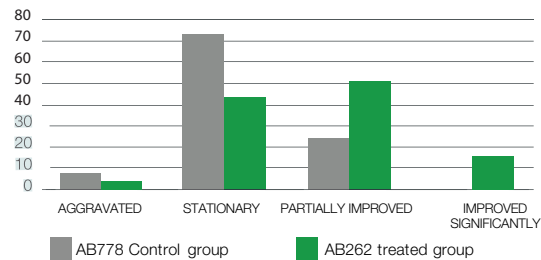
of each between the study phases:

- bloating and/or meteriorism,
- abdominal pain or discomfort
- number of daily evacuations
- characteristics of the evacuation

(sense of difficulty, incomplete evacuation, urgency to evacuate)

- the consistency of the feces according to validated Bristol Stool Scale (every two weeks)

Results can be summarized in general representation of Kluuveromyces B0399 efficacy in reducing personal discomforts, controlling symptoms of IBS and improving the sense of subjective well being:



Trial n. 132

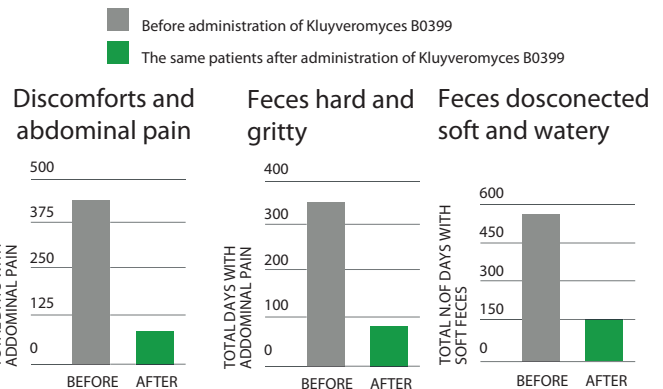
Dr. S. Andreoli – medical director dep. Gastroenterology at Hospital of Udine, Italy

EFFECTS OF KLUYVEROMYCES B0399 ON PATIENTS WITH IRRITABLE BOWEL SYNDROME

SUMMARY

Clinical results of the treatment with the lactic yeast Kluuveromyces B0399 for Irritable Bowel Syndrome. This study, based on the gathering of symtomatological data before and after the treatment, demonstrates that the prolonged use of Kluuveromyces marxianus fragilis B0399, t the dosage of 10/20 million CFU/capsule/day, significantly improves the clinical picture and above all improves the quality of life of these patients. The product was administered to 50 patients: 15 men with ages of 20 62 and 35 women with ages of 22 55 in the following way: one capsule every 12h for a month and a maintenance period with one capsule before breakfast for two months.

Results relevant symtomatological data of the patients were compared “before” and at the end (“after”) the treatment:



Trial n. 16

Dr. S. Andreoli – medical director dep. Gastroenterology at Hospital of Udine, Italy

TRIAL WITH KLUYVEROMYCES B0399 ON PATIENTS WITH IRRITABLE BOWEL SYNDROME

SUMMARY

45 patients were treated, predominantly female, from the ages of 20 to 70 years (average age 38). All the patients were excluded of organic pathologies with rectoscopy and/or opaque clisma, or colonoscopy. Research was done on occult blood, parasites, total IgE, blood count, serum iron. Cea and alpha - fetoprotein were also researched in elderly. Relevant symptoms present in the patients at least three months before the trial and followed along the trial period:

- pain or abdominal distension attenuated after discharge
- bowel movement pattern change or change in feces consistency
- alteration of clarification that becomes difficult, urgent with the sensation of incomplete discharge - myxorrhea.

Results: Group A (1 capsule every 8 h for 20 days): a considerable improvement in abdominal distension with an accelerated rate of discharge and emission of soft feces; Group B (1 capsule every 12 h for 30 days): an improvement in abdominal distension, fecal consistency with regular bowel movement and regular clarification; Group C (1 capsule per day for 60 days): improvements of the symptoms present, but not consistent.

Trial n. 75

Dr. A.Tuli– irector of the Clinic of Dermatology, University of Studies “G. di Annunzio” Chieti, Italy

PRELIMINARY STUDY ON THE EFFECTS OF KLUYVEROMYCES B0399 ON PATIENTS WITH ATOPIC DERMATITIS

SUMMARY

The study involved 10 patients (age: 6 10) with atopic dermatitis and high total IgE. Subject were subjected to the treatment with Kluuveromyces B0399 at the dosage 10/20 million CFU /day for 30 days. **At the end of the trial the total serum IgE reduced to normal level.**

APPLICATIONS

>> PEDIATRICS

- CONSTIPATION
- DIARRHEA
- IRRITABLE BOWEL
- ATOPIC DERMATITIS
- LACTOSE INTOLERANCE
- LACK OF BREAST MILK IN BREASTFEEDING

>> GASTROENTEROLOGY

- IRRITABLE BOWEL
- NONSPECIFIC ENTERITIS
- COLITIS
- CONSTIPATION
- DIARRHEA
- LACTOSE INTOLERANCE

>> GYNECOLOGY

- CANDIDA ALBICANS MYCOSIS
- LACK OF BREAST MILK IN BREASTFEEDING
(TO ADMINISTER TO MOTHER)

>> GERIATRICS and UROLOGY

- URINARY TRACT INFECTION
- CONSTIPATION
- DIARRHEA
- LACTOSE INTOLERANCE

>> ONCOLOGY

- IN PATIENTS UNDERGOING RADIATION AND CHEMOTHERAPY

BIBLIOGRAFIA

1. Lachance M.A. *Kluyveromyces*: systematics since Antoine van Leeuwenhoek 63, 95-104, 1993.
2. Vananuvat P. e Kinsella J.E. Production of yeast protein from crude lactose by *Saccaromyces fragilis*. *Batch culture studies J. Food Science* 40, 336-41, 1975
3. Wasserman A.E., Hopkins W.J., Porges N. Whey utilization – Growth conditions for *Saccaromyces fragilis*. *Sewages Ind. Wastes* 30, 913-20, 1958
4. Vaughan Ann University of Perugia Italy, Department of Biology and Agrodietary Biotechnologies. Resistance to antibiotics of the typified lactic yeast *kluyveomyces marxianus fragilis* B03999. Trial n. 84, 2002.
5. Susmel P. e Stefanon B. Comparative experimentation in relation to the efficacy of probiotics in the zootechnical diet. Trial n. 35, 1999, updated 2009.
6. Lovrovich Paola – Review: The porcine GIT as a model system for experimental testing of human digestive system. Documented by Italian Ministry of Health). Expertise 008.
7. Smalley LR., H & S Lab Inc. Omaha, Nebraska, USA; TURVAL 6 Horse daily probiotic influence on the chemistry of the large colon of a horse.
8. Susmel P., e Stefanon B., Del Savio R., Bocalon S. Faculty of Veterinary Medicine, University of Udine, Italy; Variation of large colon pH in horses after administration of lactic yeast *Kluyveromyces B0399*. Trial n. 57, updated 2009.
9. Bosi P., DIPROVAL – University of Bologna, Italy; Effects of Turval B0399 in the diet of the weaned piglet; Tolerance test and effects on the intestine microorganism. Directive 70/524, 87/153, 94/40 EEC I (regulation 377/2006. Trial n. 79, updated 2010.
10. Sandro A., Camillo S., Hospital Treviso; Clinical results of treatment with the lactic yeast *Kluyveromyces B0399* for Irritable Bowel Syndrome. Trial n. 132, updated 2011.
11. Bottona E., Paris G., Zilli M. Gastroenterologia e Endoscopia Digestiva ULSS 5 Arzignano(VI), Medicina Interna Hosp. S.M. del Prato ULSS2 Feltre(BL), Gastroenterologia e Endoscopia Digestiva Hospital S.M. della Misericordia de Udine; Evaluation of lactic yeast *Kluyveromyces marxianus fragilis* B03999 under the guidelines of the Min. Of Health in December 2005 All1. Expertise, 2005.
12. Valles P., Lugano A.; TURVAL laboratories, Italy. Daily dosage of dairy yeast *Kluyveromyces B0399* in human nutrition (as a food supplement); Directive CE n.135/3 del 23.5.2006 annex 1; Expertise, 2006.
13. COMMISSION REGULATION (EC) , Use of the microorganism preparation of *Kluyveromyces marxianus fragilis* B0399 for weaned piglets. Official Journal of the European Union L. 135/3 No 773/2006 of 22 May 2006.
14. Cettolo T., Riul L.; Specialized laboratory for Microbiology of ASA Udine, Chamber of Commerce Udine, Italy. In vitro test of *Kluyveromyces B0399* antagonistic effect vs *Candida albicans*. Trial n. 96, undated 2009.
15. Mustacchi G., Cancer Center – Agency for Health Services 1 Trieste. University of Trieste, Italy; Evaluation of the capacity of colonization of the gastrointestinal tract in healthy subjects, after the utilization of the lactic yeast *Kluyveromyces B0399*, through examination of the faeces. Trial n. 130.1 , 2009.
16. Andreoli S, Gastroenterology Dept., Hospital Santa Maria della Misericordia of Udine, Italy. Clinical trial evaluating the effect of the lactic yeast, *Kluyveromyces B0399* on the patients suffering from irritable bowel syndrome. Trial n. 16, 2009.
17. Tulli A., – Clinic of Dermatology, University of “G. d’Annunzio” Chieti Italy; Preliminary studies on the effects of *Kluyveromyces B0399* in patients with atopic dermatitis. Trial n. 75, 2009.
18. Roda E., Cornia G., isotti A. University of Bologna, Italy; Evaluation of the effects of a fermented milk containing *Kluyveromyces marxianus fragilis* B0399 in patients suffering from Irritable Bowel Syndrome—a double blind, randomized clinical study, controlled with placebo. Trial n.125, *Minerva Gastroenterol Dietol*, 57(Suppl. 1 al N.2): 1-12, 2011.
19. Maccaferri S. Et al.; Potential probiotic *Kluyveromyces marxianus fragilis* B0399 modulates the immune response in Caco 2 cells and PBMCs and impacts on the human gut microbiota in an in vitro colonic model system. Trial 143, *Appl. Environ. Microbiol.* Feb;78(4), 2012.



MESSAGGERO VENETO 04/11/08
Un integratore friulano per i soldati in Afghanistan
Un probiotico friulano per l'esercito italiano. Fu il primo medicinale a essere...

MEDICINA ALIMENTARE
Prodotti Fvg al servizio dell'Esercito

MEDICINA ALIMENTARE
Prodotti Fvg al servizio dell'Esercito

UDINE. Un probiotico friulano per l'esercito italiano. Di recente a Senigallia è stato organizzato il X convegno nazionale degli Ufficiali medici del Corpo militare e l'VIII simposio del personale sanitario della Croce Rossa italiana; nella sezione sulla prevenzione intestinale la dottoressa Te...

La Turval mette a punto un principio attivo efficace per il benessere
Probiotico friulano
La sperimentazione è stata condotta nell'arco di circa dieci anni



Alessandro Turello, nel riquadro una carota, innovatore nella scoperta di organismi probiotici per i microbiotici di un probiotico made in Friuli

Novos probióticos no mercado de leites fermentados: agora a vez das leveduras?

UdineEconomica
APR. 2001
Che buono il Parmigiano Reggiano! Merito anche della Turval

RICONOSCIMENTO INTERNAZIONALE
Yogurt probiotico da guinness
Nato dalla collaborazione tra Coop e Parco scientifico di Udine

UDINE. Uno yogurt interamente a base di latte pastorizzato e probiotico studiato e brevettato dal parco scientifico di Udine ha ottenuto il "Salute to Excellence Award" alla fine della marca del distributore ad Amsterdam e il premio al miglior yogurt in grado di mantenere l'equilibrio della flora batterica intestinale anche durante la terapia antibiotica. Al prodotto hanno collaborato l'università di Udine, nel ruolo di supporto alla validazione scientifica del principio...

RICERCA
Il lievito "bio-friulano" premiato a Verona

Turval, impresa innovativa, settore delle biotecnologie, è stata al Parco scientifico di Udine il 14 dicembre dal 2005 al 2005 al parco scientifico di Udine, hanno...

Premio allo yogurt bio friulano
Lo yogurt prodotto con lievito probiotico Turval B0399 è stato premiato come miglior yogurt al mondo al parco scientifico di Udine, hanno...

Medicinale naturale inventato a Udine ha ricevuto il via libera della Sanità Usa

New England Journal of Large Animal Health
Published By The New England Animal Health Institute

AGENZIE TERZIARIO
Probiotici anche per intolleranti

TURVAL - LA MAPPATURA DEL DNA DEL LIEVITO BREVETTATO AUTORIZZA L'AZIENDA UDINESE A SVILUPPARE PRODOTTI PER LE PERSONE CHE NON DIGERISCONO IL LATTOSIO

FRIULI.it
Premiato lo yogurt al melograno nato e brevettato a Udine. Il probiotico studiato al parco scientifico dall'azienda di Alessandro Turello, insediata dal 2005 a Friuli Innovazione, ha ottenuto il "Salute to Excellence Awards" ad Amsterdam

PROBIOTICI NA TRŽIŠTU FERMENTISANIH MLEČNIH PROIZVODA
ed je na kvasce!

IL GAZZETTINO
24 GIUGNO 2006

Friuli Venezia Giulia
Salute: nuovo integratore alimentare per dissenteria Pvs

Messo a punto dai Laboratori Turval al parco di Udine
16 febbraio 2012

(ANSA) - UDINE, 16 FEB - I bambini del Ciad, della Somalia e del Ruanda potrebbero avere una chance in più di sopravvivere alla dissenteria grazie a un integratore alimentare prodotto e portato in questi Paesi dalle Onlus che vi operano. Lo ha reso noto Friuli Innovazione precisando che "si tratta del lievito lattico probiotico Kluuyveromyces B0399, un principio attivo approvato dal Ministero della Ricerca e della Sanità" italiano e riconosciuto anche dall'americana Food and Drug Administration.

Turval Laboratories and CCWW ONLUS to form pediatricians and nurses / I Laboratori Turval e la CCWW ONLUS collaborano per la formazione di medici pediatri e infermieri

The Turval Laboratories cooperates with the ChildCare WorldWide ONLUS (CCWW) to form pediatricians and nurses in specific sub-saharian pathologies.

I Laboratori Turval affiancano la ChildCare WorldWide (CCWW) ONLUS nel progetto di formazione di medici pediatri ed infermieri nelle patologie specifiche dell'Africa sub-sahariana.

ARRIVA DAGLI USA
Un lievito probiotico innovativo al Parco scientifico di Udine

Udine
Primo importante riconoscimento internazionale per il Parco scientifico di Udine. Il ministero della Sanità Usa (Food and Drug Administration) ha approvato un principio attivo innovativo messo a punto da una delle prime società in campo nel Parco, Turval Laboratories, in collaborazione con le Università di Udine, Bologna e Perugia. Lo annuncia, esprimendo soddisfazione, il presidente di Friuli Innovazione, Furio Honsell. "Si tratta di un lievito probiotico innovativo spiega l'ing. Alessandro Turello, della Turval - il primo del suo genere ad aver ottenuto l'autorizzazione delle autorità americane per l'uso in...

Jogofir Echinacea
CHINACEA je prezna kao vrhunska prirodna imunostimulans za efikasno jačanje imuniteta naravno zadržava za bolesnije i dečne čestim prehladama. Lector je vrhunski sastojak kiselina, polisaharida i glikozida koji svojim antioksidativnim, antibakterijskim, antivirusnim i desjivom učincima u lečenju respiratornih infekcija, gripa, infekcije uha, gljivičnih obojenja i u brojnim...

Nova generacija probioti
PREDVARNI
Predstavljamo | Dr Ana Backović: Nova generacija probiotika za novu generaciju jogurta