

เอกสารอ้างอิง

- มณฑกานต์ ทองสม. 2547. การแยกแบคทีเรียแลคติกจากทางเดินอาหารของกึ่งกุลาดำ. วิทยานิพนธ์
วิทยาศาสตร์มหาบัณฑิต สาขาจุลชีววิทยา บัณฑิตวิทยาลัย มหาวิทยาลัยสงขลานครินทร์.
- Al-Tamimi, M. A. H. M., Palframan, R. J., Cooper, J. M., Gibson, G. R. and Rastall, R. A. 2006.
In vitro fermentation of sugar beet arabinan and arabinooligosaccharides by the human
gut microflora. J. Appl. Microbiol. 100: 407-414.
- Aly, S., Cheik, A. T. O., Imael, H. N. B., Alfred, T. S. 2006. Bacteriocins and lactic acid bacteria-
a minireview. J. Biotechnol. 5: 678-683.
- Arihara, K., Ota, H., Itoh, M., Kondo, Y., Sameshima, T., Yamanaka, H., Akimoto, M., Kanai, S.
and Miki, T. 1998. *Lactobacillus acidophilus* group lactic acid bacteria applied to meat
fermentation. J. Food Sci. 63: 544-547.
- Asahara, T., Nomoto, K., Shimizu, K., Watanuki, M. and Tanka, R. 2001. Increased resistance of
mice to *Salmonella typhimurium* infection by symbiotic administration of bifidobacteria
and transgalactosylated oligosaccharides. J. Appl. Microbiol. 91: 985-996.
- Aslim, B., Yuksekdog, Z. N., Sarikaya, E. and Beyatli, Y. 2005. Determination of the bacteriocin-
like substances produced by some lactic acid bacteria isolated from Turkish dairy
products. LWT. 38: 691-694.
- Austin, B. and Al-Zahrani, A. M. 1998. The effect of antimicrobial compounds on the
gastrointestinal microflora of ainbow trout, *Salmo gairdneri* Richardson. J. Fish Biol. 33:
1-14.
- Axellsson, L. T. 1993. Lactic Acid Bacteria: classification and physiology. In Lactic Acid
Bacteria. (ed. Salminen, S. and Wright, A.V.) New York : Marcel Dekker. pp. 1-64.
- Bailey, J. S., Blankenship, L. C. and Cox, N. A. 1991. Effect of fructooligosaccharide on
Salmonella colonization of the chicken intestine. Poult Sci. 70: 2433-2438.
- Ballongue, J. Schumann, C. and Quignon, P. 1997. Effects of lactulose and lactinol on colonic
microflora and enzymatic activity. Scand. J. Gastroenterol. Suppl. 222: 41-44.
- Beerens, H., Romond, C. and Neut, C. 1980. Influence of breast-feeding on the bifido flora of the
new-born intestine. Am. J. Clin. Nutr. 33: 2434-2439.

- Begley, M., Gahan, C. G. M. and Hill, C. 2005. The interaction between bacteria and bile. *FEMS Microbiol.* 29: 625-651.
- Bielecka, M., Biedrzycka, E. and Majkowska, A. 2002. Selection of probiotics and prebiotics for synbiotics and confirmation of their in vivo effectiveness. *Food Res. Int.* 35: 125-131.
- Blaut, M. 2002. Relationship of prebiotics and food to intestinal microflora. *Eur. J. Nutr.* 41: 1/11-1/16.
- Bouhni, Y., Flourie, B., D'Agay-Abensour, L., Pochart, P., Gramet, G., Durand, M. and Rambaud, J. C. 1997. Administration of transgalacto-oligosaccharides increases faecal bifidobacteria and modifies colonic fermentation metabolism in healthy humans. *J. Nutr.* 127: 444-448.
- Brink, M., Todorov, S. D., Martin, J. H., Senekal, M. and Dicks, L. M. T. 2006. The effect of prebiotic on production of antimicrobial compounds, resistance to growth at low pH and in the presence of bile, and adhesion of probiotic cells to intestinal mucus. *J. Appl. Microbiol.* 100: 813-820.
- Buddington, R. K., Williams, C. H., Chen and Witherly, S. A. 1996. Dietary supplement of neosugar alters the faecal flora and decreases activities of some reductive enzymes in human subjects. *Am. J. Clin. Nutr.* 63: 709-716.
- Buke, M. L. and Gilland, E. S. 1994. Comparisons of freshly isolated strains of *Lactobacillus acidophilus* of human intestinal origin for ability to assimilate cholesterol during growth. *J. Dairy Sci.* 77: 2925-2933.
- Bxcommerce. 2001. What is inulin ? <http://www.stonyfield.com> (23 November 2005)
- Chonan, O., Matsumoto, K. and Watanuki, M. 1995. Effect of galactooligosaccharides on calcium absorption and preventing bone loss in ovariectomized rats. *Biosci. Biotechnol. Biochem.* 59: 236-239.
- Cintas, L. M., Casaus, P., Holo, H., Hernandez, P. E., Nes, I. F. and Havarstein, L. S. 1998. Enterocins L50A and L50B, Two Novel bacteriocins from *Enterococcus faecium* L50, are related to *Staphylococcus hemolysins*. *J. Bacteriol.* 180:1988-1994.
- Conway, P. L., Corback, S. L. and Goldin, B. R. 1987. Survival of lactic acid bacteria in the human stomach and adhesion to intestinal cell. *J. Dairy Sci.* 70: 1-12.

- Conway, P. L. 2001. Prebiotics and human health: the state of the art and future perspectives. *Scand. J. Nutr.* 45: 13-21.
- Collins, E. B. and Aramaki, K. 1980. Production of hydrogen peroxide by *Lactobacillus acidophilus*. *J. Dairy Sci.* 63: 681-686.
- Coppa, G. V., Zampini, L., Galeazzi, T., Facinelli, B., Ferrante, L., Capretti, R. and Orazio, G. 2006. Human milk oligosaccharides inhibit the adhesion to Caco-2 cells of diarrheal pathogens: *Escherichia coli*, *Vibrio cholerae* and *Salmonella typhi*. *Int. Pediatr. Resear. Found.* 59: 377-382.
- Cumming, J. H. and Englyst, H. N. 1995. Gastrointestinal effects of food carbohydrate. *Am. J. Clin. Nutr.* 61: 938S-945S.
- Cumming, J. H. and Macfarlane, G. T. 1991. The control and consequences of bacterial fermentation in the human colon. *J. Appl. Bacteriol.* 70: 443-459.
- Cumming, J. H., Macfarlane, G. T. and Englyst, H. N. 2001. Prebiotic digestion and fermentation. *Am. J. Clin. Nutr.* 73: 415S-420S.
- Cumming, J. H. and Macfarlane, G. T. 2002. Gastrointestinal effects of prebiotics. *Brit. J. Nutr.* 87: S145-S151.
- De Boever, P., Wouters, R., Verschaeve, L., Berckmans, P., Schoeters, G. and Verstraete, W. 2000. Protective effect of the bile salt hydrolase-active *Lactobacillus reuteri* against bile salt cytotoxicity. *Appl. Microbiol. Biotechnol.* 53: 709-714.
- Delzenne, N., Aertsses, J., Verplaetse, N., Roccaro, M. and Roberfroid, M. 1995. Effect of fermentable fructo-oligosaccharides on energy and nutrients absorption in the rat. *Life Sci.* 57: 1579-1587.
- Drago, L., Gismondo, M. R., Lombardi, A., Haen, C. D. and Gozzini, L. 1997. Inhibition of in vitro growth of enteropathogens by new *Lactobacillus* isolates of human intestine origin. *FEMS Microbiol. Lett.* 153: 455-463.
- Dubois, M., Gilles, K. A., Hamilton, J. K., Rebers, P. A. and Smith, F. 1956. Calorimetric method for determination of sugars and related substances. *Anal. Chem.* 28: 350-356.

- Elotmani, F., Revol-Junelles, A. M., Assobhei, O. and Milliere, J. B. 2002. Characterization of Anti-*Listeria monocytogenes* Bacteriocins from *Enterococcus faecalis*, *Enterococcus faecium* and *Lactococcus lactis* strains isolated from Raib, a moroccan traditional fermented milk. *Int. J. Microbiol.* 44: 10-17.
- Engfer, M. B., Stahl, B., Finke, B., Sawatzki, G. and Daniel, H. 2000. Human milk oligosaccharides are resistant to enzymatic hydrolysis in the upper gastrointestinal tract. *Am. J. Clin. Nutr.* 71: 1589-1596.
- Englyst, H. N. and Cumming, J. H. 1987. Digestion of polysaccharides of potato in the small intestine of man. *Am. J. Clin. Nutr.* 45: 423-431.
- Erkkila, S and Petaja, E. 2000. Screening of commercial meat starter cultures at low pH in the presence of bile salts for potential probiotic use. *J. Meat Sci.* 55: 297-300.
- Flickinger, E. A., Hatch, T. F., Wofford, R. C., Grieshop, C. M., Murry, S. M. and Fahey, G. C. 2002. In vitro fermentation properties of selected fructooligosaccharide-containing vegetables and in vivo colonic microbial populations are affected by the diets of healthy human infants. *J. Nutr.* 132: 2188-2194.
- Fooks, L. J., Fuller, R. and Gibson, G. R. 1999. Prebiotics, probiotics and human gut microbiology. *Int. Dairy J.* 9: 53-61.
- Fooks, L. and Gibson, G. R. 2003. In vitro investigations of the effect of probiotics and prebiotics on selected human intestinal pathogens. *FEMS Microbe. Ecol.* 39: 67-75.
- Franz, C. M. A. P., Holzapfel, W. H. and Stiles, M. E. 1999. Enterococci at the cressroads of food safety. *Int. J. Food Microbiol.* 47: 1-24.
- Fuller, R. 1993. Probiotic food current use and future developments. *IFI NR.* 3 : 23-26.
- Gibson, G. R. 2004. Prebiotic. *J. Gastroenterol. Suppl.* 18: 287-298.
- Gibson, G. R., Beatty, E. R., Wang, X. and Cumming, J. H. 1995. Selective stimulation of Bifidobacteria in the human colon by FOS and inulin. *J. Dairy Sci.* 108: 975-982.
- Gibson, G. and Anngus, F. 2000. *Prebiotic and Probiotic.* Leatherhead publishing. England. 1-81.
- Gibson, G. R. and Roberfroid, M. B. 1995. Dietary modulation of the human colonic microbiota: introducing the concept of prebiotics. *J. Nutr.* 125: 1401-1412.
- Gibson, G. R. and Wang, X. 1994. Regulatory effects of bifidobacteria on the growth of other colonic bacteria. *J. Appl. Bacteriol.* 77: 412-420.

- Gnoth, M. J., Kunz, C., Kinne-Saffran, E. and Rudloff, S. 2000. Human milk oligosaccharides are minimally digested in vitro. *J. Nutr.* 130: 3014-3020.
- Gurira, O. Z. and Buy, E. M. 2005. Characterization and antimicrobial activity of *Pediococcus* species isolated from South African farm-style cheese. *J. Food Microbiol.* 22: 159-168.
- Hedley, C. L. 2001. Carbohydrates in Grain Legume Seeds: Improving Nutritional Quality and Agronomic Characteristics. CABI publishing, Wallingford. UK.
- Helander, I. M., Wright, A. V. and Mattila-Sandholm, T. M. 1997. Potential of lactic acid bacteria and novel antimicrobials against gram-negative bacteria. *Trends Food Sci. Technol.* 8: 146-150.
- Holzappel, W. H., Haberer, P., Snel, J., Schillinger, U. and Huis, H. J. 1998. Overview of gut flora and probiotics. *Int. J. Food Microbiol.* 41: 85-101.
- Hopkins, M. J. and Macfarlane, G. T. 2003. Nondigestible oligosaccharides enhance bacterial colonization resistance against *Clostridium difficile* in vitro. *Appl. Environ. Microbiol.* 69: 1920-1927.
- Huang, A. S., Titchenal, C. A. and Meilleur, B. A. 2000. Nutrient composition of taro corms and breadfruit. *J. Food Compos. Anal.* 13: 859-864.
- Hughes, D. B. and Hoover, D. G. 1991. Bifidobacteria: their potential for use in American dairy products. *Food Technol.* 74-80.
- Hughes, H. and Rowland, I. R. 2001. Stimulation of apoptosis by two prebiotic chicory fructans in the rat colon. *Carcinogenesis.* 22: 43-47.
- Hylla, S., Gostner, A. and Dusel, G. 1998. Effect of resistant starch on the colon in healthy volunteers: positive implications for cancer prevention. *Am. J. Clin. Nutr.* 67: 136-142.
- Hyronimus, B., Le Marrec, C., Hadj Sassi, A. and Deschamps, A. 2000. Acid and bile tolerance of spore-forming lactic acid bacteria. *Int. J. Food Microbiol.* 61: 193-197.
- Isolauri, E., Salminen, S. and Ouwehand, A. C. 2004. Probiotics. *Best Practice & Research Clin. Gastroenterol.* 18: 299-313.
- Jacobsen, C. N., Nielsen, V. R., Hayford, A. E., Moller, P. L., Michaelsen, K. F., Perregaard, Sandstrom, B., Tvede, M. and Jakobson, M. 1999. Screening of probiotic activities of forty-seven strains of *Lactobacillus* spp. By in vitro techniques and evaluation of the

- colonization ability of five selected strains in humans. *Am. Societ. Microbiol.* 65: 4949-4956.
- Johnson, I. T. 2002. Anticarcinogenic effects of diet-related apoptosis in the colorectal mucosa. *Food Chem. Technol.* 11: 347-352.
- Kaila, M., Isolauri, E., Virtanen, E., Laine, S. and Arivilommi, H. 1992. Enhancement of the circulating antibody secreting cell response in human diarrhoea by a human *Lactobacillus* strain. *J. Int. Ped. Resear. Found.* 32: 141-144.
- Kaplan, H. and Hutkins, R. W. 2000. Fermentation of fructooligosaccharides by lactic acid bacteria and Bifidobacteria. *Appl. Environ. Microbiol.* 66: 2682-2684.
- Kawaze, K., Suzuki, T., Kiyosawa, I., Okongi, S., Kawashima, T. and Kuboyama, M. 1981. Effects on composition of infant formulas on the intestinal microflora of infants. *Bifidobacteria Microflora.* 2: 25-31.
- Kim, Y. and Wang, S. S. 2002. Physiochemical properties of inulin in baking as a fat substitute. <http://www.confex.com>. (20 December 2006)
- Kolida, S., Tuohy, K. and Gibson, G. R. 2000. The human gut flora in nutrition and approaches for its dietary modulation. *Brit. Nutr. Found.* 25: 223-231.
- Kolida, S., Tuohy, K. and Gibson, G. R. 2002. Prebiotic effects of inulin and oligofructose. *Brit. J. Nutr.* 87: S193-S197.
- Korakli, M., Ganzle, M. G. and Vogel, R. F. 2002. Metabolism by Bifidobacteria and lactic acid bacteria of polysaccharides from wheat and rye, and exopolysaccharides produced by *Lactobacillus sanfranciscensis*. *J. Appl. Microbiol.* 92: 958-965.
- Kontula, P., Jaskali, J., Nollet, L., Smet, I. D., Wright, A. V., Poutanan, K. and Sandholm, T. M. 1998. The colonization of a simulator of the human intestinal microbial ecosystem by a probiotic strain fed on fermented oat bran product effect on gastrointestinal microbiota. *J. Appl. Microbiol. Biotechnol.* 50: 246-252.
- Korakli, M. and Vogel, R. F. 2006. Structure/function relationship of homopolysaccharide producing glycosyltransferases and therapeutic potential of their synthesized glycans. *Appl. Microbiol. Biotechnol.* 71: 790-803.
- Laurentin, A. and Edwards, C. 2004. Differential fermentation of glucose-based carbohydrates *in vitro* by human faecal bacteria. *Eur. J. Nutr.* 43: 183-189.

- Lee, H. W., Park, Y. W., Jung, J. S. and Shin, W. S. 2002. Chitosan oligosaccharides, dp 2-8, have prebiotic effect on the *Bifidobacteria bifidium* and *Lactobacillus* sp. Food Microbiol. 8: 319-324.
- Lopez, H. W., Coudray, C., Levrat-Verny, M. A., Coudray, F. C., Demigne, C. and Remesy, C. 2000. Fructooligosaccharides enhance mineral absorption and counteract the deleterious effects of phytic acid on mineral homeostasis in rats. J. Nutr. Biochem. 11: 500-508.
- Makras, L., Acker, G. V. and Vuyst, L. D. 2005. *Lactobacillus paracasei* subsp. *paracasei* 8700:2 degrades inulin-type fructans exhibiting different degrees of polymerization. Appl. Environ. Microbiol. 71: 6531-6537.
- Manca de Nadra, M. C., Sandino de Lamelas, D. and Strasser de Saad. 1998. Pediocin N5p from *pediococcus pentosaceus*: adsorption on bacterial strains. Int. J. Food Microbiol. 39:79-85.
- Mandalari, G., Palop, C. P., Tuohy, K., Gibson, G. R., Bennett, R. N., Waldron, K. W., Bisignano, G., Narbad, A. and Faulds, C. B. 2007. In vitro evaluation of the prebiotic activity of a pectic oligosaccharide-rich extract enzymatically derived from bergamot peel. Appl. Microbiol. Biotechnol. 77: 1173-1179.
- Marcinakova, M., Simonova, M. and Laukova, A. 2004. Probiotic properties of *Enterococcus faecium* EF9296 strain isolated from silage. Acta. vet. Brno. 73: 513-519.
- Maragkoudakis, P. A., Zoumpopoulou, G., Miaris, C., Kalantzopoulos, G., Pot, B. and Tsakalidou, E. 2006. Probiotic potential of *Lactobacillus* strains isolated from dairy products. Int. Dairy J. 16: 189-199.
- Mcperson, A. E. and Jane, J. 1999. Comparison of waxy potato with other root and tuber starches. Carbohydr. Polym. 40: 57-70.
- Michel, C., Kravtchenko, T.P., David, A., Gueneau, S., Kozlowski, F. and Cherbut, C. 1998. In vitro prebiotic effects of acacia gums onto the human intestine microbiota depends on both botanical origin and environmental pH. Anaerobe Ecology. 4: 257-266.
- Miller, G. L. 1959. Use of dinitrosalicylic acid reagent for determination of reducing sugar. Anal. Chem. 31: 426-428.

- Ohkusa, T., Ozaki, Y., Sato, C., Mikuni, K. and Ikeda, H. 1995. Long-term ingestion of lactosucrose increases *Bifidobacterium* sp. in human fecal flora. *Microbiol. Rev.* 56: 415-420.
- Oku, T. and Nakamura, S. 2002. Digestion, absorption, fermentation, and metabolism of functional sugar substitutes and their available energy. *Pure Appl. Chem.* 74: 1253-1261.
- Olano-Martin, E., Gibson, G. R. and Rastall, R. A. 2002. Comparison of the in vitro bifidogenic properties of pectins and pectic-oligosaccharides. *J. Appl. Microbiol.* 93: 505-511.
- Olano-Martin, E., Mountzouris, K. C., Gibson, G. R. and Rastall, R. A. 2000. In vitro fermentability of dextran, oligodextran and maltodextrin by human gut bacteria. *Brit. J. Nutr.* 83: 247-255.
- Ouwehand, A. C., Derrien, M., De Vos, W., Tiihonen, K. and Rautonen, N. 2005. Prebitics and other microbial substrates for gut functionality. *Curr. Opin. Biotechnol.* 16: 1-6.
- Papamanoli, E., Tzanetakis, N., Litopoulou-Tzanetaki, E. and Kotzekidou, P. 2003. Characterization of lactic acid bacteria isolated from a Greek dry-fermented sausage in respect of their technological and probiotic properties. *Meat Sci.* 65: 859-867.
- Park, Y. S., Lee, J. Y., Kim, Y. S. and Shin, D. H. 2002. Isolation and characterization of lactic acid bacteria from feces of newborn baby and from dongchimi. *J. Agr. Food Chem.* 50: 2531-2536.
- Paul, B. 1997. Effect of the in vitro fermentation of oligofructose and inulin by bacteria growing in the human large intestine. <http://medherb.com>. (19 November 2006)
- Pedreschi, R., Campos, D., Noratto, G., Chirinos, R. and Cisneros-Zevallos, L. 2003. Andean Yacon Roots (*Smallanthus sochifolius* Poepp. Endl) fructooligosaccharides as a potential novel source of prebitics. *J. Agr. Food Chem.* 51: 5278-5284.
- Pennacchia, C., Ercolini, D., Blaiotta, G., Pepe, O., Mauriello, F. and Villani, F. 2004. Selection of *Lactobacillus* strains from fermented sausages for their potential use as probiotics. *J. Meat Sci.* 67: 309-317.
- Prasad, J., Gill, H., Smart, J. and Gopal, P. K. 1998. Selection and characterization of *Lactobacillus* and *Bifidobacterium* strains for use as probiotics. *Int. Dairy J.* 8: 993-1002.

- Puupponen-Pimia, R., Aura, Oksman-Caldentey, K. M., Myllarinen, P., Saarela, M., Mattila-Sandholm, T. and Poutanen, K. 2002. Development of functional ingredients for gut health. *J. Food Sci. Technol.* 13: 3-11.
- Rastall, R. A. and Gibson, G. R. 2002. Prebiotics oligosaccharides: evaluation of biological activities and potential future developments. In: *Probiotics and prebiotic: where are we going?* Tannock, G.W.(ed). Caister Academic press, Wymondham. United kingdom: 107-148.
- Reddy, B. S. 1998. Prevention of colon cancer by pre-and probiotic: evidence from laboratory studies. *Brit. J. Nutr.* 80: S219-S223.
- Reddy, B. S., Hamid, R. and Rao, R. 1997. Effect of dietary oligofructose and inulin on colonic preneoplastic aberrant crypt foci inhibition. *Carcinogenesis.* 18: 1371-1374.
- Ringø, E., 1993. Does dietary linoleic acid affect intestinal microflora in Arctic charr, *Salvelinus alpinus*. *Aquacult. Fish. Manage.* 24: 133–135.
- Ringo, E. and Gatesoupe, F. J. 1998. Lactic acid bacteria in fish: a review. *J. Aquacult.* 160: 177-203.
- Roberfroid, M. B. 2000. Prebiotics and probiotic: are they functional food. *Am. J. Clin. Nutr.* 71: 1682S-1687S.
- Robertson, J. A., Ryden, P., Botham, R. L., Reading, L., Gibson, Glenn. and Ring, S. G. 2001. Structural properties of diet-derived polysaccharides and their influence on butyrate production during fermentation. *Brit. J. Nutr.* 81: S219-S223.
- Rowland, I. R. and Tanaka, R. 1993. The effects of transgalactosylated oligosaccharides on gut flora metabolism in rats associated with a human faecal microflora. *J. Appl. Bacteriol.* 74: 667-674.
- Ruiz-Palacios, G. M., Cervantes, L. E., Ramos, P., Chavez-Munguia, B. and Newburg, D. S. 2003. *Campyrobacter jejuni* binds intestinal H(O) antigen(Fuc α 1, 2Gal β 1, 4GlcNAc), and fucosyloligosaccharides of human milk inhibit its binding and infection. *J. Biol. Chem.* 278: 14112-14120.
- Rycroft, C. E., Jones, M. R., Gibson, G. R. and Rastall, R. A. 2001. A comparative *in vitro* evaluation of the fermentation properties of prebiotic oligosaccharides. *J. Appl. Microbiol.* 91: 878-887.

- Saarela, M., Lahteenmaki, L., Crittenden, R., Salminen, S. and Mattila-Sandholm, T. 2002. Gut bacteria and health foods-the European perspective. *Int. J. Food Microbiol.* 78: 99-117.
- Saito, Y., Takano, T. and Rowland, I. 1992. Effect of soybean oligosaccharides on the human gut microflora in vitro culture. *Microbiol. Ecol. Health D.* 5: 105-110.
- Sako, T., Matsumoto, K. and Tanaka, R. 1999. Recent progress on research and application of non-digestible galacto-oligosaccharides. *Int. Dairy J.* 9: 69-80.
- Salminen, S. and Wright, A. V. 1993. Lactic acid bacteria. In: Fennema, O.R., Karel, M., Sanderson, G.W., Tannenbaum, S.R., Walstra, P. and Whitaker, J.R. (Eds.) pp. 442. New York: Marcel Dekker Inc.
- Salvador, L. D., Suganuma, T., Kitahara, K., Tanoue, H. and Ichiki, M. 2000. Monosaccharide composition of sweetpotato fiber and cell wall polysaccharides from sweetpotato, cassava, and potato analyzed by the high-performance anion exchange chromatography with pulsed amperometric detection method. *J. Agr. Food Chem.* 48: 3448-3454.
- Scholz-Ahrens, K. E., Schaafsma, G., GHM van der Heuvel, E. and Schrezenmeir, J. 2001. Effects of prebiotics on mineral metabolism. *Am. J. Clin. Nutr.* 73: 459S-464S.
- Servin, A. L. 2004. Antagonistic activities of Lactobacilli and Bifidobacteria against microbial pathogens. *FEMS Microbiol.* 28: 405-440.
- Sofia, K., Tuohy, K. and Gibson, G. R. 2001. The human gut flora in nutrition and approaches for its dietary modulation. *Brit. Nutr. Found.* 25: 223-231.
- Spelhaug, S. R. and Harlander, S. K. 1989. Inhibition of food born bacteria pathogens by bacteriocins from *Lactobacillus lactis* and *Pediococcus pentosaceus*. *J. Food Prot.* 52: 856-862.
- Strompfova, V., Laukova, A. and Ouwehand, A. C. 2004. Selection of enterococci for potential canine probiotic additives. *Vet. Microbiol.* 100: 107-114.
- Succi, M., Tremonte, P., Reale, A., Sorrentino, E., Grazia, L., Pacifico, S. and Coppola, R. 2005. Bile salt and acid tolerance of *Lactobacillus rhamnosus* strains isolated from Parmigiano Reggiano cheese. *FEMS Microbiol.* 244: 129-137.
- Suskovic, J., Kos, B., Goreta, J. and Matosic, S. 2001. Role of lactic acid bacteria and Bifidobacteria in Synbiotic effect. *Food Technol. Biotechnol.* 39: 227-235.

- Tanya, Z. 2002. The ecosystem in your gut: how prebiotic work. [http://www. Dietandbody.com](http://www.Dietandbody.com) (20 October 2006)
- Taranto, M. P., Perez-Martinez, G. and Font de Valdez, G. 2006. Effect of bile acid on the cell membrane functionality of lactic acid bacteria for oral administration. *Resear. Microbiol.* 157: 720-725.
- Terada, A., Hara, H., Kato, S., Kimura, T., Fujimori, I., Hara, K., Maruyama, T. and Mitsuoka, T. 1993. Effect of lactosucrose on faecal flora and faecal putrefactive product of cats. *J. Vet. Med. Sci.* 55: 291-295.
- Toit, M., Franz, C. M. A., Dick, L. M. T., Schillinger, U., Haberer, P., Warlies, B., Ahrens, F. and Holzapfel, W. H. 1998. Characterization and selection of probiotic Lactobacilli for a preliminary minipig feeding trial and their effect on serum cholesterol levels, faeces pH and faeces moisture content. *J. Food Microbiol.* 40: 93-104.
- Tomomatsu, H. 1994. Health effects of oligosaccharides. *Food Technol.* 48: 61-65.
- Topping, D. L. and Clifton, P. M. 2001. Short-chain fatty acid and human colonic function: Roles of resistant starch and nonstarch polysaccharides. *Physiol. Rev.* 81: 1031-1064.
- Tsai, C. C., Huang, L. F., Lin, C. C. and Tsen, H. Y. 2004. Antagonistic activity against *Helicobacter pylori* infection in vitro by a strain of *Enterococcus faecium* TM39. *Int. J. Food Microbiol.* 96: 1-12.
- Tuohy, K. M., Probert, H. M., Smejkal, C. W. and Gibson, G. R. 2003. Using probiotics and prebiotics to improve gut health. *Drug. Discov. Today.* 8: 692-700.
- Tzortzis, G., Goulas, A. K., Baillon, M. L. A., Gibson, G. R. and Rastall, R. A. 2004. In vitro evaluation of the fermentation properties of galactooligosaccharides synthesised by α -galactosidase from *Lactobacillus reuteri*. *Appl. Microbiol. Biotechnol.* 64: 106-111.
- Van, D. H., Schaafsma, G., Muys, T. and Van, D. W. 1998. Nondigestible oligosaccharides do not interfere with calcium and nonheme-iron absorption in young healthy men. *J. Clinic Nutr.* 67: 45-451.
- Van de Wiele, T., Boon, N., Possemiers, S., Jacobs, H. and Verstraete, W. 2004. Prebiotic effects of chicory inulin in simulator of the human intestinal microbial ecosystem. *FEMS. Microbiol. Ecol.* 51: 143:153.

- Van den Heuvel, E., Muys, T., Van Dokkum, W. and Schaafsma, G. 1999. Oligofructose stimulates calcium absorption in adolescents. *Am. J. Clin. Nutr.* 69: 544-548.
- Van der Meulen, R., Avonts, L. and Vuyst, L. D. 2004. Short fractions of oligofructose are preferentially metabolized by *Bifidobacterium animalis* DN-173010. *Appl. Environ. Microbiol.* 70: 1923-1930.
- Van Loo, J., Coussement, P., De Leenheer, L., Hoebregs, H. and Smits, G. 1995. On the presence of inulin and oligofructose as natural ingredients in the Western diet. *Crit. Rev. Food Sci. Nutr.* 35: 525-552.
- Vaux, A. D., Morrison, M. and Hutkins, R. W. 2002. Displacement of *Escherichia coli* O157:H7 from rumen medium containing probiotic sugars. *Appl. Environ. Microbiol.* 68: 519-524.
- Vicki, K. 2002. Inulin. A prebiotic. [http://www. Stonyfield.com](http://www.Stonyfield.com). (19 November 2006)
- Voughan, E. E., Caplice, E., Looney, R., Rourke, N., Coveney, H., Daly, C. and Fitzgerald, G. F. 1994. Isolation from food sources of lactic acid bacteria that produced antimicrobial. *J. Appl. Bacteriol.* 76: 118-123.
- Wada, K., Watabe, J., Mizutani, J., Tomoda, M., Suzuki, H. and Saitoh, Y. 1992. Effects of soybean oligosaccharides in a beverage on human fecal flora and metabolites. *J. Agric. Chem. Societ. Japan.* 66: 127-135.
- Walker, W. A. and Duffy, L. C. 1998. Diet and bacterial colonization: role of probiotics and prebiotics. *J. Nutr. Biochem.* 9: 668-675.
- Wang, X. and Gibson, G. R. 1993. Effects of the in vitro fermentation of oligofructose and inulin by bacteria growing in the human large intestine. *J. Appl. Bacteriol.* 75: 373-380.
- Wichienchot, S. 2005. Production of oligodextrans by *Gluconobacter oxydans* NCIMB 4943 and evaluation on their prebiotic properties. Ph.D. Thesis in Biotechnology. Prince of Songkla University.
- Wijnands, M. V. W. 1999. A comparison of the effects of dietary cellulose and fermentable galacto-oligosaccharides, in rat model of colorectal carcinogenesis: fibre in both high and low fat backgrounds. *Carcinogenesis.* 20: 651-656.
- Wisterich, G. A. 1997. *Microbiology Laboratory Fundamentals and Application*. Prentice-Hall. New jersey. U.S.A. pp. 392-403.

- Wollowski, I., Reckhemmer, G. and Pool-Zobel, B. L. 2001. Protective role of probiotics and prebiotics in colon cancer. *Am. J. Clin. Nutr.* 73: 451S-455S.
- Yanahira, S. 1997. Effect of lactitol-oligosaccharides on calcium and magnesium absorption in rats. *J. Nutr. Sci. Vitaminol.* 43: 123-132.
- Yang, S. J., Lee, H. S., Park, C. S., Kim, Y. R., Moon, T. W. and Park, K. H. 2004. Enzymatic analysis of an amylolytic enzyme from the hyperthermophilic archaeon *Pyrococcus furiosus* reveals its novel catalytic properties as both an α -amylase and a cyclodextrin hydrolyzing enzyme. *Appl. Environ. Microbiol.* 70: 5988-5995.