BIBLIOGRAPHY

Aasen, I.M., Moretro, T., Katla, T., Axelsson, L., and Storro, I. 2000. Influence of complex nutrients, temperature and pH on bacteriocin production by *Lactobacillus sakei* CCUG 42687, Appl. Microbiol. Biotech., 53: 159-166.

Abee, T., Klaenhammer, T.R., and Letellier, L. 1994. Kinetic studies of the action of lactacin F, a bacteriocin produced by *Lactobacillus johnsonii* that forms poration complexes in the cytoplasmic membrane, Appl. Environ. Microbiol., 60: 1006–1013.

Abee, T. 1995. Pore-forming bacteriocins of gram-positive bacteria and self-protection mechanisms of producer organisms, FEMS Microbiol. Lett., 129: 1-10.

Abee, T., Krockel, L., and Hill, C. 1995. Bacteriocins: modes of action and potentials in food preservation and control of food poisoning, Int. J. Food Microbiol., 28: 169–185.

Allison, G.E., Fremaux, C., and Klaenhammer, T.R. 1994. Expansion of bacteriocin activity and host range upon complementation of two peptides encoded within the lactacin F operon, J. Bacteriol., 176: 2235-2241.

Almstahl, A., Wikstrom, M., and Kroneld, U. 2001. Microflora in oral ecosystems in Sjörgren's syndrome, J. Rheumatol., 28: 1007-1013.

Andersson, R.E., Daeschel, M.A., and Hassan, H.M. 1988. Antibacterial activity of plantaricin SIK-83, a bacteriocin produced by *Lactobacillus plantarum*, Biochimie, 70: 381-390.

Andres, M., Chung,W., Roberts, M., and Fierro, J. 1998. Antimicrobial susceptibilities of *Porphyromonas gingivalis, Prevotella intermedia*, and *Prevotella nigrescens* spp. isolated in Spain, Antimicrob. Agents Chemother., 42: 3022-3023.

Annuk, H., Shchepetova, J., Kullisaar,T., Songisepp, E., Zilmer, M., and Mikelsaar, M. 2003. Characterization of intestinal lactobacilli as putative probiotic candidates, J. Appl. Microbiol., 94: 403-412.

Arici, M., Bilgin, B., Sagdic, O., and Ozdemir, C. 2004. Some characteristics of *Lactobacillus* isolates from infant faeces, Food Microbiol., 21: 19-24.

Atanassova, M., Choiset, Y., Dalgalarrondo, M., Chobert, J.-M., Dousset, X., Ivanova, I., and Haertle T. 2003. Isolation and partial biochemical characterization of a proteinaceous anti-bacteria and anti-yeast compound produced by *Lactobacillus paracasei* subsp. paracasei strain M3, Int. J. Food Microbiol., 87: 63-73.

Atrih, A., Rekhif, N., Moir, A.J.G., Lebrihi, A., and Lefebvre, G. 2001. Mode of action, purification and amino acid sequence of plantaricin C19, an anti-Listeria bacteriocin produced by *Lactobacillus plantarum* C19, Int. J. Food Microbiol., 68: 93-104.

Axelsson, L., Katla, T., Bjørnslett, M., Eijsink, V.G.H., and Holck, A. 1998. A system for heterologous expression of bacteriocins in *Lactobacillus sake*, FEMS Microbiol. Lett., 168:137-143.

Ayad, E.H.E., Nashat, S., El-Sadek, N., Metwaly, H., and El-Soda, M. 2004. Selection of wild lactic acid bacteria isolated from traditional Egyptian dairy products according to production and technological criteria, Food Microbiol., 21: 715-725.

Barefoot, S.F., and Klaenhammer, T.R. 1983. Detection and activity of Lactacin B, a bacteriocin produced by *Lactobacillus acidophilus*, Appl. Environ. Microbiol., 45: 1808–1815.

Bhatti, M., Nair, S.P., MacRobert, A.J., Henderson, B., Shepherd, P., Cridland, J., and Wilson, M. 2001. Identification of photolabile outer membrane proteins of *Porphyromonas ginigivalis*, Curr. Microbiol., 43: 96-99.

Bardow, A., Moe, D., Nyvad, B., and Nauntofte, B. 2000. The buffer capacity and buffer systems of human whole saliva measured without loss of CO_2, Arch. Oral Biol., 45: 1-12.

Boman, H. 1991. Antibacterial peptides: key components needed in immunity, Cell, 65: 205-207.

Botha, S.J., Boy, S.C., Botha, F.S., and Senekal, R. 1998. *Lactobacillus* species associated with active caries lesions, J. Dent. Assoc. S. Afr., 53: 3-6.

Bouwsma, O. J. 1996. The status, future, and problems of oral antiseptics. In: R.C. Williams, R.A. Yukna, and M.G. Newman (ed.) Current opinion in periodontology, pp. 78-84. Churchill Livingstone, Cornwall.

Bruno, M. E. C., and Montville, T.J. 1993. Common mechanistic action of bacteriocins from lactic acid bacteria, Appl. Environ. Microbiol., 59: 3003-3010.

Caridi, A. 2003. Identification and first characterization of lactic acid bacteria isolated from the artisanal ovine chesse Pecorino del Poro, Int. J. Dairy Tech., 56: 105-110.

Castellano, P., Raya, R., and Vignolo, G. 2003. Mode of action of lactocin 705, a two-component bacteriocin from *Lactobacillus casei* CRL705, Int. J. Food Microbiol., 85: 35–43.

Chan, Y., and Chan, C.H. 2003. Antibiotic resistance of pathogenic bacteria from odontogenic infections in Taiwan, J. Microbiol. Immunol. Infect., 36: 105-110.

Chapple, I.L.C. 1997. Periodontal disease diagnosis: current status and future developments, J. Dent., 25: 3-15.

Collins, J.G., Windley III, H.W., Arnold, R.R., and Offenbacher, S. 1994. Effects of a *Porphyromonas gingivalis* infection on inflammatory mediator response and pregnancy outcome in hamster, Infect. Immun., 62: 4356-4361.

Contreras, B. G. L., De Vuyst, L., Devreese, B., Busanyova, K., Raymaeckers, J., Bosman, F., Sablon, E., and Vandamme, E. J. 1997. Isolation, purification, and amino acid sequence of lactobin A, one of the two bacteriocins produced by *Lactobacillus amylovorus* LMG P-13139, Appl. Environ. Microbiol., 63: 13-20.

Copeland, R.A. 1994. Methods for Protein Analysis. International Thomson Publishing, New York, NY.

Daeschel, M.A., McKenney, M.C., and McDonald, L.C. 1990. Bacteriocidal activity of *Lactobacillus plantarum* C-11, Food Microbiol., 7: 91-98.

Daw, M.A., and Falkiner, F.R. 1996. Bacteriocins: nature, function and structure, Micron, 27: 467-479.

De Klerk, H.C., and Smit, J.A. 1967. Properties of a *Lactobacillus fermenti* bacteriocin, J. Gen. Microbiol., 48: 309-316.

De Martinis, E.C., and Franco, B.D. 1998. Inhibition of *Listeria monocytogenes* in a pork product by a *Lactobacillus sake* strain, Int. J. Food Microbiol., 42: 119-126.

Dental Health Division Department of Health, Ministry of Public Health Thailand. 2001. The fifth report on the surveys of dental diseases. (http://advisor.anamai.moph.go.th/factsheet/dent/DStatus.html)

Deraz, S.F., Karlsson, E.N., Hedstrom, M., Andersson, M.M., and Mattiasson, B. 2005. Purification and characterisation of acidocin D20079, a bacteriocin produced by *Lactobacillus acidophilus* DSM 20079, J. Biotech., 117: 343-354.

De Vuyst, L., Callewaert, R., and Pot, B. 1996. Characterization of the antagonistic activity of *Lactobacillus amylovorus* DCE 471 and large scale isolation of its bacteriocin amylovorin L471, Sys. Appl. Microbiol., 19: 9–20.

Diep, D.B., Havarstein, L.S., and Nes, I.F. 1996. Characterization of the locus responsible for the bacteriocin production in *Lactobacillus plantarum* C11, J. Bacteriol., 178: 4472–4483.

Drisko, C.H. 2001. Non surgical periodontal therapy, Periodontol. 2000, 25: 77-88.

Duche, D. 2002. The pore-forming domain of colicin A fused to a signal peptide: a tool for studying pore-formation and inhibition, Biochimie, 84: 455-464.

Edward, D.I. 2001. Antibiotic and chemotherapy. In: G. Finch, D. Greenwood, S.R. Norrby, and R.J. Whiteley (ed.) Anti-infective agents and their use in therapy, pp. 335-336. Churchill Livingstone, Cornwall.

Enan, G., el-Essawy, A.A., Uyttendaele, M., and Debevere, J. 1996. Antibacterial activity of *Lactobacillus plantarum* UG1 isolated from dry sausage: characterization, production and bactericidal action of plantaricin UG1, Int. J. Food Microbiol., 30: 189-215.

Ennahar, S., Sonomoto, K., and Ishizaki, A. 1999. Class IIa bacteriocins from lactic acid bacteria: Antibacterial activity and food preservation, J. Biosci. Bioeng., 87: 705-716.

Filoche, S.K., Anderson, S.A., and Sissons, C.H. 2004. Biofilm growth of *Lactobacillus* species is promoted by *Actinomyces* species and *Streptococcus mutans*, Oral Microbiol. Immunol., 19: 322–326.

Fimland, G., Blingsmo, O.R., Sletten, K., Jung, G., Nes, I. F., and Nissen-Meyer, J. 1996. New biologically active hybrid bacteriocins constructed by combining regions from various pediocin-like bacteriocins: the C-terminal region is important for determining specificity, Appl. Environ. Microbiol., 62: 3313-3318.

Flynn, S., van Sinderen, D., Thornton' G.M., Holo., H., Nes, I.F., and Collins, J.K. 2002. Characterization of the genetic locus responsible for the production of ABP-118, a novel bacteriocin produced by the probiotic bacterium *Lactobacillus salivarius* subsp. salivarius UCC118, Microbiology, 148: 973-984.

Fujimura, S., and Nakamura, T. 1979. Sanguicin, a bacteriocin of oral *Streptococcus sanguis*, Antimicrob. Agents Chemother., 16: 262-265.

Ganzle, M.G. 2004 Reutericyclin: biological activity, mode of action, and potential applications, Appl. Microbiol. Biotech., 64: 326-332.

Genco, C.A., and Dixon., D.W. 2001. Emerging strategies in microbial heme capture, Mol. Microbiol., 39: 1-11.

Ganzle, M.G., Holtzel, A., Walter, J., Jung, G., and Hammes, W.P. 2000. Characterization of Reutericyclin produced by *Lactobacillus reuteri* LTH2584, Appl. Environ. Microbiol., 66: 4325-4333.

Gonzalez, B., Arca, P., Mayo, B., and Suarez, JE. 1994. Detection, purification, and partial characterization of plantaricin C, a bacteriocin produced by a *Lactobacillus plantarum* strain of dairy origin, Appl. Environ. Microbiol., 60: 2158-2163.

Grenier, D. 1996. Antagonistic effect of oral bacteria towards *Treponema denticola*, J. Clin. Microbiol ., 34: 1249-1252.

Griffiths, G.S., Curtis, M.A., and Wilton, J.M. 1988. Selection of a filter paper with optimum properties for the collection of gingival crevicular fluid, J. Periodontal Res., 23: 33-38.

Han, K.S., Imm, J.Y., Oh, S., Jeon, W.M., and Kim, S.H. 2002. Bacteriocin produced by *Lactobacillus acidophilus* ATCC 4356; characterization and purification, Food Sci. Biotechnol., 11: 531–536.

Hancock, R.E. 2001. Cationic peptides: effectors in innate immunity and novel antimicrobials, Lancet Infect. Dis., 1: 156-164.

Hillman, J.D., Socransky, S.S., and Shivers, M. 1985. The relationships between streptococcal species and periodontopathic bacteria in human dental plaque, Arch. Oral Biol., 30: 791-795.

Hojo, S., Takahashi, N., and Yamada, T. 1991. Acid profile in carious dentin, J. Dent. Res., 70: 182-186.

Holck, A., Axelsson, L., Birkeland, S.E., Aukrust, T., and Blom, H. 1992. Purification and amino acid sequence of sakacin A, a bacteriocin from *Lactobacillus sake* Lb706, J. Gen. Microbiol., 138: 2715-2720.

Holck, A.L., Axelsson, L., Huhne, K., and Krockel, L. 1994. Purification and cloning of sakacin 674, a bacteriocin from *Lactobacillus sake* Lb674, FEMS Microbiol. Lett., 115: 143-149.

Holo, H., Jeknic, Z., Daeschel, M., Stevanovic, S., and Nes, I.F. 2001. Plantaricin W from *Lactobacillus plantarum* belongs to a new family of two-peptide lantibiotics, Microbiology, 147: 643-651.

Holt, S.C., Kesavalu, L., Walker, S., and Genco, C.A. 1999. Virulence factors of *Porphyromonas gingivalis*, Periodontol. 2000, 20: 168-238.

Holzapfel, W.H., Haberer, P., Snel, J., Schillinger, U., and Huis in't Veld, J.H.J. 1998. Overview of gut flora and probiotics, Int. J. Food Microbiol., 41: 85-101.

Holzapfel, W.H., Haberer, P., Geisen, R., Bjorkroth, J., and Schillinger, U. 2001. Taxonomy and important features of probiotic microorganisms in food and nutrition, Am. J. Clin. Nutr., 73: 365S-373S.

Hsu, S.T.D., Breukink, E., Tischenko, E., Lutters, M.A.G., de Kruijff, B., Kaptein, R., Bonvin, A.M.J.J., and van Nuland, N.A.J. 2004. The nisin–lipid II complex reveals a pyrophosphate cage that provides a blueprint for novel antibiotics, Nat. Struct. Mol. Biol., 11: 963–967.

Huot, E., Meghrous, J., Barrena-Gonzalea, C., and Petitdemange, H. 1996. Bacteriocin J46, a new bacteriocin produced by *Lactococcus lactis* subsp. cremoris J46: isolation and characterization of the protein and its gene, Anaerobe, 2: 137-145.

Huttunen, E., Noro, K., and Yang, Z. 1987. Purification and identification of antimicrobial substances produced by two *Lactobacillus casei* strains, Int. Diary J., 5: 503-513.

Jack, R.W., Tagg, J.R., and Ray, B. 1995. Bacteriocins of gram-positive bacteria, Microbiol. Rev., 59: 171-200.

Jacob, F., Lwoff, A., Siminovitch, A., and Wollman, E. 1953. [Definition of some terms relative to -Sanchez,R.M., Desmazeaud,M., Ruiz-Barba, J.L. & Piard, J.C. (1993) Plantaricins S lysogeny.]. Ann. Inst. Pasteur (Paris), 84: 222-224.

Jagels, M.A., Travis, J., Potempa, J., Pike, R., and Hugli, T.E. 1996. Proteolytic inactiviation of the leukocyte C5a receptor by proteinases derived from *Porphyromonas gingivalis,* Infect. Immun., 64: 1984-1991.

Javadpour, M.M., Juban, M.M., Lo, W.C.J., Bishop, S.M., Alberty, J.B., Cowell, S.M., Becker, C.L., and McLaughlin, M.L. 1996. De novo antimicrobial peptides with low mammalian cell toxicity, J. Med. Chem., 39: 3107-3113.

Jiménez-Díaz, R., Rios-Sánchez, R.M., Desmazeaud, M., Ruiz-Barba, J.L., and Piard, J.C. 1993. Plantaricin S and T, two new bacteriocins produced by *Lactobacillus plantarum* LPCO10 isolated from a green olive fermentation, Appl. Environ. Microbiol., 59: 1416-1424.

Jiménez-Díaz, R., Ruiz-Barba, J.L., Cathcart, D.P., Holo, H., Nes, I.F., Sletten, K.H., and Warner, P.J. 1995. Purification and partial amino acid sequence of plantaricin S, a bacteriocin produced by *Lactobacillus plantarum* LPCO10, the activity of which depends on the complementary action of two peptides, Appl. Environ. Microbiol., 61: 4459-4463.

Joerger, M.C., and Klaenhammer, T.R. 1986. Characterization and purification of helveticin J and evidence for a chromosomally determined bacteriocin produced by *Lactobacillus helveticus* 481, J. Bacteriol., 167: 439-446.

Johansson, I., Lenander-Lumikari, M., and Saellstrom, A.K. 1994. Saliva composition in Indian children with chronic protein-energy malnutrition, J. Dent. Res., 73: 11-19.

Kabuki, T., Saito, T., Kawai, Y., Uemura, J., and Itoh, T. 1997. Production, purification and characterization of reutericin 6, a bacteriocin with lytic activity produced by *Lactobacillus reuteri* LA6, Int. J. Food Microbiol., 34: 145-156.

Kaewnopparat, S. 1999. Human lactobacilli as antidiarrheal and anticholesterol bio-agents: *in vitro* and *in vivo* studies, Ph.D. thesis (Biopharmaceutical sciences), Faculty of Graduate Studies, Mahidol University, Bangkok.

Kaewsrichan, J., Douglas, C.W.I., Nissen-Meyer, J., Fimland, G., and Teanpaisan, R. 2004. Characterization of a bacteriocin produced by *Prevotella nigrescens* ATCC 25261, Lett. Appl. Microbiol., 39: 451-458.

Kaiser, A.L., and Montville, T.J. 1996. Purification of the bacteriocin bavaricin MN and characterization its mode of action against *Listeria monocytogenes* Scott A cells and lipid vesicles, Appl. Environ. Microbiol., 62: 4529-4535.

Kato, T., Matsuda, T., Ogawa, E., Ogawa, H., Kato, H., Doi, U., and Nakamura, R. 1994. Plantaricin-149, a bacteriocin produced by *Lactobacillus plantarum* NRIC 149, J. Ferment. Bioeng., 77: 277-282.

Kanatani, K, Oshimura, M., and Sano, K. 1995. Isolation and characterization of acidocin A and cloning of the bacteriocin gene from *Lactobacillus acidophilus*, Appl. Environ. Microbiol., 61: 1061–1067.

Kang, I.C., and Kuramitsu, H.K. 2002. Induction of monocyte hemoattractant protein-1 by *Porphyromonas gingivalis* in human endothelial cells, FEMS Immunol. Med. Mic., 34: 311-317.

Kawai, Y., Ishii, Y., Uemura, K., Kitazawa, H., Saito, T., and Itoh, T. 2001. *Lactobacillus reuteri* LA6 and *Lactobacillus gasseri* LA39 isolated from faeces of the same human infant produce identical cyclic bacteriocin, Food Microbiol., 18: 407-415.

Kinane, D.F. 2001. Causation and pathogenesis of periodontal disease. Periodontol. 2000, 25: 8-20.

Klaenhammer, T.R. 1993. Genetics of bacteriocins produced by lactic acid bacteria. FEMS Microbiol. Rev., 12: 39-85.

Kline, L., and Sugihara T.F. 1971. Microorganisms of the San Francisco sour dough bread process. II. Isolation and characterization of undescribed bacterial species responsible for the souring activity, Appl. Microbiol., 21: 459-465.

Koll-Klais, P., Mandar, R., Leibur, E., Marcotte, H., Hammarstrom, L., and Mikelsaar, M. 2005. Oral lactobacilli in chronic periodontitis and periodontal health: species composition and antimicrobial activity. Oral Microbiol. Immunol., 20: 354-361.

Kondejewski, L., Farmer, S., Wishart, D., Kay, C., Hancock, R., and Hodges, R. 1996. Modulation of structure and antibacterial and hemolytic activity by ring size in cyclic gramicidin S analogs, J. Biol. Chem., 271: 25261-25268.

Koo, H., Gomes, B.P.F.A., Rosalen, P.L., Ambrosano, G.M.B., Park, Y.K., and Cury, J.A. 2000. In vitro antimicrobial activity of propolis and *Arnica montana* against oral pathogens. Arch. Oral Biol., 45: 141-148.

Kostinek, M., Specht, I., Edward, V.A., Schillinger, U., Hertel, C., Holzapfel, W.H., and Franz, C.M.A.P. 2005. Diversity and technological properties of predominant lactic acid bacteria from fermented cassava used for the preparation of Gari, a traditional African food, Sys. Appl. Microbiol., 28: 527-540.

Lamont, R. J., and Yilmaz., O. 2002. In or out: the invasiveness of oral bacteria. Periodontol. 2000, 30: 61-69.

Larsen, A.G., Vogensen, F.K., and Josephen, J. 1993. Antimicrobial activity of lactic acid bacteria isolated from sour doughs: purification and characterization of bavaricin A, a bacteriocin produced by *Lactobacillus bavaricus* M1401, J. Appl. Bacteriol., 75: 113–122.

Leal, M., Baras, M., Ruiz-Barba, J.L., Floriano, B., and Jimenez-Diaz, R. 1998. Bacteriocin production and competitiveness of *Lactobacillus plantarum* LPCO10 in olive juice broth, a culture medium obtained from olives, Int. J. Food Microbiol., 43: 129-134.

Leer, R.J., van der Vossen, J.M.B.M., van Giezen, M., van Noort, J.M., and Pouwels, P.H. 1995. Genetic analysis of acidocin B, a novel bacteriocin produced by *Lactobacillus acidophilus*, Microbiology (UK), 141: 1629-1635.

Leke, N., Grenier, D., Goldner, M., and Mayrand, D. 1999. Effects of hydrogen peroxide on growth and selected properties of *Porphyromonas gingivalis*, FEMS Microbiol. Lett., 174: 347-353.

Lesk, A.M. 2004. Genomics and proteomics. Introduction to Protein Science, pp. 58-62. Oxford University Press Inc., New York.

Lewus, C.B., and Montville, T.J. 1991. Detection of bacteriocins produced by lactic acid bacteria, J. Microbiol. Methods, 13: 145-150.

Leyeune, R., Callewaert, R., Crabbe, K., and De Vuyst, L. 1998. Modelling the growth and bacteriocin production by *Lactobacillus amylovorus* DCE 471 in batch cultivation, J. Appl. Microbiol., 84: 159–168.

Lindhe, J., Socransky, S.S., Nyman, S., Haffajee, A., and Westfelt, E. 1982. Critical probing depths in periodontal therapy, J. Clin. Periodontol., 9: 323-336.

Liu, H.J., Chang, B.Y., Yan, H.W., Yu, F.H., and Liu, X.X. 1995. Determination of amino acids in food and feed by derivatization with 6-aminoquionolyl-n-hydroxysuccinimidyl carbamate and reversed phase liquid chromatographic separation, J. A.O.A.C. Int., 78: 736-44.

Loesche, W. J., Schmidt, E., Smith, B. A., Morrison, E. C., Caffesse, R., and Hujoel, P.P. 1991. Effects of metronidazole on periodontal treatment needs, J. Periodont., 62: 247–257.

Lowry, O.H., Rosebrough, N.J., Farr, A.L., and Randall, R.J. 1951. Protein measurement with the Folin phenol reagent, J. Biol. Chem.,193: 265-275.

Mager, D.L., Ximenez-Fyvie, L.A., Haffajee, A.D., and Socransky, S.S. 2003. Distribution of selected bacterial species on intraoral surfaces, J. Clin. Periodontol., 30: 644-654.

Magnusson, J., Strom, K., Roos, S., Sjogren, J., and Schnurer, J. 2003. Broad and complex antifungal activity among environmental isolates of lactic acid bacteria, FEMS Microbiol. Lett., 219: 129-135.

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.

Marsh, P.D. 1990. The microbiology of periodontal disease. In: J.B. Kieser (ed.) Periodontics: a practical approach, pp. 29. Wright, London.

Masuda, K., Tomita, K., Hayashi, H., Yoshioka M., Hinode, D., and Nakamura, R. 2001. Consumption of peptide-derived arginine by a periodontopathogenic bacterium, *Porphyromonas gingivalis,* Anaerobe, 7: 209-217.

Mayrand, D., and Grenier, D. 1998. Bacterial interactions in periodontal diseases, Bull. Inst. Pasteur, 96: 125-133.

McGinn, B.J. 1996. Peptide synthesis. In: N.C. Price (ed.) Proteins Labfax, pp. 139–154. Bios Scientific Publishers and Academic Press, London.

Messi, P., Bondi, M., Sabia, C., Battini, R., and Manicardi, G. 2001. Detection and preliminary characterization of a bacteriocin (plantaricin 35d) produced by a *Lactobacillus plantarum* strain, Int. J. Food Microbiol., 64: 193-198.

Montville, T.J., Winkowski, K., and Ludescher, R.D. 1995. Models and mechanisms for bacteriocin action and application, Int. Dairy J., 5: 797-814.

Mortvedt, C.I., Nissen-Meyer, J., Sletten, K., and Nes, I.F. 1991. Purification and amino acid sequence of lactocin S, a bacteriocin produced by *Lactobacillus sake* L45, Appl. Environ. Microbiol., 57: 1829-1834.

Mouton, C., Bouchard, D., Deslauriers, M., and Lamonde, L. 1989. Immunochemical identification and preliminary characterization of a nonfimbrial hemagglutinating adhesin of *Bacteroides gingivalis*, Infect. Immun., 57: 566-573.

Muriana, P.M., and Klaenhammer, T.R. 1991. Purification and partial characterization of lactacin F, a bacteriocin produced by *Lactobacillus acidophilus* 11088, Appl. Environ. Microbiol., 57: 114-121.

Nakamura, T., Fujimura, S., Obata, N., and Yamazaki, N. 1981. Bacteriocin-like substance (melaninocin) from oral *Bacteroides melaninogenicus*, Infect. Immun., 31: 28-32.

Nakayama, K., Kadowaki, T., Okamoto, K., and Yamamoto, K. 1995. Construction and characterization of arginine-specific cysteine proteinase (Arg-gingipain)-deficient mutants of *Porphyromonas gingivalis*, Evidence for significant contribution of Arg-gingipain to virulence, J. Biol. Chem., 270: 23619–23626.

Norskov-Lauritsen, N., and Kilian, M. 2006. Delineation of the genus *Actinobacillus* by comparison of partial infB sequences, Int. J. Syst. Evol. Microbiol., 56: 2135-2146.

Olczak, T., Simpson, W., Liu, X., and Genco, C.A. 2005. Iron and heme utilization in *Porphyromonas gingivalis*, FEMS Microbiol. Rev., 29: 119-144.

Onda, T., Yanagida, F., Tsuji, M., Shinohara, T., and Yokotsuka, K. 2003. Production and purification of a bacteriocin peptide produced by *Lactococcus* sp. strain GM005, isolated from Miso-paste, Int. J. Food Microbiol., 87: 153-159.

Ouhara, K., Komatsuzawa, H., Yamada, S., Shiba, H., Fujiwara, T., Ohara, M., Sayama, K., Hashimoto, K., Kurihara, H., and Sugai, M. 2005. Susceptibilities of periodontopathogenic and cariogenic bacteria to antibacterial peptides, {beta}-defensins and LL37, produced by human epithelial cells, J. Antimicrob. Chemother., 55: 888-896.

Palacios, J., Vignolo, G., Farias, M.E., de Ruiz Holgado, A.P., Oliver, G., and Sesma, F. 1999. Purification and amino acid sequence of lactocin 705, a bacteriocin produced by *Lactobacillus casei* CRL 705, Microbiol. Res., 154: 199-204.

Papagianni, M. 2003. Ribosomally synthesized peptides with antimicrobial properties: biosynthesis, structure, function, and applications, Biotechnol. Adv., 21: 465-499.

Paramonov, N., Rangarajan, M., Hashim, A., Gallagher, A., Aduse-Opoku, J., Slaney, J.M., Hounsell, E., and Curtis, M.A. 2005. Structural analysis of a novel anionic polysaccharide from *Porphyromonas gingivalis* strain W50 related to Arg-gingipain glycans, Molec. Microb., 58: 847-863.

Petersilka, G.J., Ehmke, B., and Flemmig, T.F. 2002. Antimicrobial effects of mechanical debridement, Periodontol. 2000, 28: 56-71.

Piard, J.C., Muriana, P., Desmazeaud, M., and Klaenhammer, T. 1992. Purification and partial characterization of lacticin 481, a lanthionine-containing bacteriocin produced by *Lactococcus lactis* subsp. lactis CNRZ 481, Appl. Environ. Microbiol., 58: 279-284.

Powers, J.P., and Hancock, R.E.W. 2003. The relationship between peptide structure and antibacterial activity, Peptides, 24: 1681-1691.

Prakash, S., and Jones, M.L. 2005. Artificial cell therapy: New strategies for the therapeutic delivery of live bacteria, J. Biomed. Biotechnol., 2005: 44-56.

Reeves, P. 1972. The colicins and other bacteriocins. In: A. Kleinzeller, G.F. Springer, and H.G. Wittmann (ed.) Molecular Biology Biochemistry and Biophysics, pp. 1-6. Chapman & Hall Limited, London.

Remiger, A., Eijsink, V.G.H., Ehrmann, M.A., Sletten, K., Nes, I.F., and Vogel, R.F. 1999. Purification and partial amino acid sequence of plantaricin 1.25α and 1.25β, two bacteriocins produced by *Lactobacillus plantarum* TMW1.25, J. Appl. Microbiol., 86: 1053-1058.

Roberts, F.A., and Darveau, R.P. 2002. Beneficial bacteria of the periodontium, Periodontol. 2000, 30: 40–50.

Rogelj, I., and Matijasic, B.B. 2006. *Lactobacillus gasseri* LF221 and K7 - from isolation to application, Biologia, 61: 761-769.

Rudney, J.D., and Chen, R. 2004. Human salivary function in relation to the prevalence of *Tannerella forsythensis* and other periodontal pathogens in early supragingival biofilm, Arch. Oral Biol., 49: 523-527.

Ryadnov, M., Degtyareva, O., Kashparov, I., and Mitin, Y. 2002. A new synthetic all-D-peptide with high bacterial and low mammalian cytotoxicity, Peptides, 2: 1869-1871.

Sanai, Y., Persson, G.R., Starr, J.R., Luis, H.S., Bernardo, M., Leitao, J., and Roberts, M.C. 2002. Presence and antibiotic resistance of *Porphyromonas gingivalis, Prevotella intermedia,* and *Prevotella nigrescens* in children, J. Clin. Periodontol., 29: 929-934.

Sandine, W.E., Muralidhara, K.S., and Elliker, P.R. 1972. Lactic acid bacteria in food and health: a review with special reference to enteropathogenic *Escherichia coli* as well as certain enteric diseases and their treatment with antibiotics and lactobacilli, J. Milk Food Technol., 12: 691-702.

Schillinger, U., and Lucke, F.K. 1989. Antibacterial activity of *Lactobacillus sake* isolated from meat, Appl. Environ. Microbiol., 55: 1901-1906.

Sharma, A., Novak, E.K., Sojar, H.T., Swank, R.T., Kuramitsu, H.K., and Genco, R.J. 2000. *Porphyromonas gingivalis* platelet aggregation activity: outer membrane vesicles are potent activators of murine platelets, Oral Microbiol. Immunol., 15: 393–396.

Slots, J. 2002. Clinical note. Selection of antimicrobial agents in periodontal therapy, J. Periodontal. Res., 37: 389-398.

Sobrino, O.J., Rodriguez, J.M., Moreira, W.L., Fernandez, M.F., Sanz, B., and Hernandez, P.E. 1991. Antibacterial activity of *Lactobacillus sake* isolated from dry fermented sausages, Int. J. Food Microbiol., 13: 1-10.

Sobrino, O.J., Rodriguez, J.M., Moreira, W.L., Cintas, L.M., Fernandez, M.F., Sanz, B., and Hernandez, P.E. 1992. Sakacin M, a bacteriocin-like substance from *Lactobacillus sake* 148, Int. J. Food Microbiol., 16: 215-225.

Söderling, E. 1989. Practical aspects of salivary analyses. In: J.O. Tenovuo (ed.) Human saliva: clinical chemistry and microbiology volume 1, pp. 1-24, CRC Press, Boca Raton.

Sookkhee, S., Chulasiri, M., and Prachyabrued, W. 2001. Lactic acid bacteria from healthy oral cavity of Thai volunteers: inhibition of oral pathogens. J. Appl. Microbiol., 90: 172-179.

Southard, G.L., and Godowski, K.C. 1998. Subgingival controlled release of antimicrobial agents in the treatment of periodontal disease, Int. J. Antimicrob. Ag., 9: 239-253.

Srichana, T., Suedee, R., Muanpanarai, D., and Tanmanee, N. 2005. The study of in vitro-in vivo correlation: pharmacokinetics and pharmacodynamics of albuterol dry powder inhalers, J. Pharm. Sci., 94: 220-230.

Suma, K., Misra, M.C., and Varadaraj, M.C. 1998. Plantaricin LP84, a broad spectrum heat-stable bacteriocin of *Lactobacillus plantarum* NCIM 2084 produced in a simple glucose broth medium, Int. J. Food Microbiol., 40: 17-25.

Tahara, T., and Kanatani, K. 1996. Isolation, partial characterization and mode of action of acidocin J1229, a bacteriocin produced by *Lactobacillus acidophilus* JCM 1229*,* J. Appl. Bacteriol*.,* 81: 669–677.

Tahara, T., and Kanatani K. 1997. Isolation and partial characterization of crispacin A, a cell-associated bacteriocin produced by *Lactobacillus crispatus* JCM 2009, FEMS Microbiol. Lett*.*, 147: 287-290.

Takahashi, N., Saito, T., Schachtele, C., and Yamada, T. 1997. Acid tolerance and acid-neutralizing activity of *Porphyromonas gingivalis*, *Prevotella intermedia* and *Fusobacterium nucleatum*, Oral Microbiol. Immunol., 12: 323-328.

Takahashi, N. 2005. Microbial ecosystem in the oral cavity: Metabolic diversity in an ecological niche and its relationship with oral diseases, Int. Cong. Ser., 1284: 103-112.

Teanpaisan, R., Baxter, A., and Douglas, C. 1998. Production and sensitivity of bacteriocin-like activity among *Porphyromonas gingivalis*, *Prevotella intermedia* and *Pr. nigrescens* strains isolated from periodontal sites, J. Med. Microbiol., 47: 585-589.

Testa, M.M., Ruiz de Valladares, R., and Benito de Cardenas, I.L. 2003. Antagonistic interactions among *Fusobacterium nucleatum* and *Prevotella intermedia* with oral lactobacilli, Res. Microbiol., 154: 669-675.

Toba, T., Yoshioka, E., and Itoh, T. 1991. Acidophilucin A, a new heat-labile bacteriocin produced by *Lactobacillus acidophilus* LAPT 1060, Lett. Appl. Microbiol., 12: 106–108.

Todorov, S.D., and Dicks, L.M.T. 2005. *Lactobacillus plantarum* isolated from molasses produces bacteriocins active against Gram-negative bacteria, Enz. Microb. Tech., 36: 318-326.

Todorov, S.D., and Dicks, L.M.T. 2006. Effect of medium components on bacteriocin production by *Lactobacillus plantarum* strains ST23LD and ST341LD, isolated from spoiled olive brine, Microbiol. Res., 161: 102-108.

Tortora, G.J., Funke, B.R., and Case, C.L. 1998. Microbiology: an introduction. 6th ed. Benjamin/Commings Publishing Company:Melo, California.

Tichaczek, P.S., Vogel, R.F., and Hammes, W.P. 1993. Cloning and sequencing of curA encoding curvacin A, the bacteriocin produced by *Lactobacillus curvatus* LTH1174, Arch. Microbiol., 160: 279–283.

Turner, D.L., Brennan, L., Meyer, H.E., Lohaus, C., Siethoff, C., Costa, H.S., Gonzalez, B., Santos, H., and Suarez, J.E. 1999. Solution structure of plantaricin C, a novel lantibiotic, Eur. J. Biochem., 264: 833-839.

Upreti, G.C., and Hinsdill, R.D. 1973. Isolation and characterization of a bacteriocin from a homofermentative *Lactobacillus*, Antimicrob. Agents Chemother., 4: 487-494.

van Reenen, C.A., Dicks, L.M.T., and Chikindas, M.L. 1998. Isolation, purification and partial characterization of plantaricin 423, a bacteriocin produced by *Lactobacillus plantarum*. J. Appl. Microbiol., 84: 1131-1137.

Wade, W., and Addy, M. 1987. Comparison of in vitro activity of niridazole, metronidazole and tetracycline against subgingival bacteria in chronic periodontitis, J. Appl. Bacteriol., 63: 455-457.

Walker, J. M. 1994. Basic protein and peptide protocols volume 32, pp. 9-34. Humana Press Inc., Totowa, N.J.

Walker, C. 1996. The acquisition of antibiotic resistance in the periodontal microflora. Periodontol. 2000, 10: 79-88.

West, C.A., and Warner, P.J. 1988. Plantaricin B, bacteriocin produced by *Lactobacillus plantarum* NCDO1193, FEMS Microbiol. Lett., 49: 163-165.

Wheater, D.M., Hirsch, A., and Mattick, A.T. 1952. Possible identity of lactobacillin with hydrogen peroxide produced by lactobacilli, Nature, 170: 623-624.

Yamato, M., Ozaki, K., and Ota, F. 2003. Partial purification and characterization of the bacteriocin produced by *Lactobacillus acidophilus* YIT 0154, Microbiol. Res., 158: 169-172.

Yang, R., Johnson, M.C., and Ray, B. 1992. Novel method to extract large amounts of bacteriocins from lactic acid bacteria, Appl. Environ. Microbiol., 58: 3355-3359.

Zamfir, M., Callewaert, R., Cornea, P.C., and De Vuyst, L. 2000. Production kinetics of acidophilin 801, a bacteriocin produced by *Lactobacillus acidophilus* IBB 801, FEMS Microbiol. Lett., 190: 305-308.

Zamfir, M., Callewaert, R., Cornea, P.C., Savu, L., Vatafu, I., and De Vuyst, L. 1999. Purification and characterization of a bacteriocin produced by *Lactobacillus acidophilus* IBB 801, J. Appl. Microbiol., 87: 923-931.

Zasloff, M. 2002. Antimicrobial peptides of multicellular organisms, Nature, 415: 389-395.

Zdobnov, E.M., and Apweiler, R. 2001. InterProScan - an integration platform for the signature-recognition methods in InterPro Bioinformatics, 17: 847-848.

Zelles, T., Purushotham, K.K., Macauley, S.P., Oxford, G.E., and Humphreys-Beher, M.G. 1995. Saliva and growth factors: the fountain of youth resides in us all, J. Dent. Res., 73: 1826-1832.