References

Aguirre A, Banderas J, and Levine MJ. Level of salivary cystatins in periodontally health and disease older adults. Arch Oral Biol 1992 ; 5 : 355-61.

Ainamo J, Barmes D, Beagril G, et al. Development of World Health Organization (WHO) Community Periodontal Index of Treatment Needs (CPITN). Int Dent J 1982 ; 32 : 281 – 91.

Barrett AJ, and Kirschke H. : Cathepsin B, cathepsin H and cathepsin L. Methods Enzymol 1981 ; 80 : 535-9.

Barrett AJ, Fritz H, and Grubb A. Nomenclature and classification of the proteins homologous with the cysteine – proteinase inhibitor chicken cystatin. Biochem J 1986 ; 236-312.

Barrett AJ. Leukocyte elastase. Method Enzymol 1987 ; 80 : 581-5.

Barrette AJ. A new assay for cathepsin B 1 and other thiol proteinase. Anal Biochem 1972 ; 47 : 280-93.

Bartold PM. Turnover in periodontal connective tissue; dynamic homeostatis of cells, collagen and group substance. J Oral Disease 1995 ; 1 : 238-53.

Bedi GS, and Williams T. Purification and characterization of a collagen – degrading protease from prophymononas gingivalis. J Biol Chem 1994 ; 269 : 599-606.

Ben-Aryeh H, Shalev A, Szargel R, et al. The salivary flow rate and composition of whole and parotid resting and stimulated saliva in young and old healthy subjects. Biochem Med Met Biol 1986 ; 36 : 260-5.

Bieth J, Spiess B, and Wermuth CG. The synthesis and analytical use of highly sensitive and convenient substrate of elastase Biochem. Med. 1974 ; 11 : 350-7.

Bond J, and Bulter P. Intracellular proteases. Annu Rev Biochem 1987 ; 56 : 333-40.

Chauncey HH. Salivary enzymes. J Am Dent Assoc 1961 ; 63 : 361-9.

Cheung AL, Ying P, and Fischetti VA. A method to detect proteinase activity using unprocessed x-ray films. Anal. Biochem 1991 ; 193 : 20-3.

Cole AS, and Eastoe JEE. Biochemistry and oral biology. 2nd ed. London: Wright, 1988.

Consensus report on periodontal disease: pathogenesis and microbial factors. Ann Periodontal 1996 ; 1 : 926-32.

Curtis MA, Gillett JR, Criffiths GS, et al. Detection of high-risk groups and individuals for periodontal disease : laboratory markers from analysis of gingival crevicular fluid. J Clin Periodontal 1989 ; 16 : 1-11.

Darvan R, Tanner A, and Page RC. The microbial challenge in periodontitis. Periodontal 2000 1997 ; 14 : 12-32.

Dennison DK, and Van Dyke T. The role of phagocytic cells antibody and complement in periodontal health and disease. Periodontal 2000 1997 ; 14 : 54-78.

Dzink JL and Socransky SS. Comparative *in vitro* activity of sangvinavine against oral microbial isolates. Antimicrob Agents Chemother 1985 ; 1985 : 663-65.

Eley M, and Cox W. Advanced in periodontal diagnosis proteolytic and hydrolytic enzyme of inflammatory cell origin. Br Dental J 1998 ; 184 : 268-71.

Elvin-Lewis M. Plants used for teeth cleaning through out the world. J prevent Dent 1980 ; 6 : 61-70.

Erlanger BF, Kokowsky N, and Cohen W. The preparation and properties of two new chromogenic substrate of trypsin. Arch Biochem. Biology 1961 ; 95 : 281-5.

Genco RI, Zambon JJ, and Murray PA. Serum and gingival fluid antibodies as adjuncts in the diagnosis of Actino-baccillus actinomycetemcomitans–associated periodontal disease. J Periodontal 1985 ; 56 : 41-50.

Gibsons RJ, and Etherden I. Fibronectin-degrading enzymes in saliva and their relation to oral cleanliness. J Periodont Res 1986 ; 21 : 386-95.

Gonzales T, and Robert–Bandury J. Bacterial amino peptidase : properties and function. FEMS Microbial Res 1996 ; 18 : 319-44.

Grbie JT, Lamster IB, Celenri RS, et al. Risk indicators for future clinical attachment loss in adult periodontitis. J Periodontal 1991 ; 63 : 322-9.

Harris ED, and Cartwright EC. Mammalial collagenase. In: Barrett AJ (ed). Proteinase in mammalian cells and tissue: Elsevier/north-Holland. Amsterdam: Biomedical press 1977, p247-8.

Havemann K. and Janoff A. Neutral proteases of human polymorphonuclear leukocytes. Baltimore – Munich : Urdan & Schwarzenberg, Inc. 1978.

Hojima Y, John J and Cocharane GC. Survey of plant inhibitors of polymorphonuclear leukocyte elastase, pancreatic elastase, cathepsin G, Cathepsin B, hageman factor fragments and other serine proteinases. Biochem Pharmaco 1983 ; 32 : 985-90.

Homer K. Manji F and Beighton D. Inhibition of protease activities of periodontopathic bacteria by extracts of plants used in Kenya as chewing sticks. Arch Oral Biol 1990 ; 33 : 421-32.

Kirschke H, Kembhari A, Bohley P, et al., Action of rat liver cathepsin L on collagen and other substrates. Biochem J 1982 ;l 201 : 367-72.

Kojima J, Yasui S, and Ishikawa I. Distribution of Porphyromonas gingivalis in adult periodontitis patients. J Periodontal 1993 ; 64 : 1231–7.

Koritsas VM, and Atkinson HJ. An assay for detecting nanogram levels of proteolytic enzymes Anal Biochem 1995 ; 227 : 22-6.

Kumada T, Virulence factors of phophyromonas gingivalis. J Bacteriol 1995 ; 177 : 2098-106.

Kuramitus HK. Protease of Porphyromonas gingivalis: What don't they do? Oral Microbial Immunol 1998 ; 12 : 263-70.

Kuwada M, and Katayama K. Differentiation of endopeptidase and aminopeptidase by High-Performance-Liquid Chromatography of reaction products from chromagenic peptide p-nitroanilines as substrates. Anal Biochem 1984 ; 139 : 438-43.

Laemmli UK. Cleavage of structural proteins during the assemble of the head Bacteriophage T4. Nature 1970 ; 227 : 680 – 5.

Lindhal P, Alriksson E, Jornvall H, et al. Interaction of the cysteine protease inhibitor chicken cystatin with papain. Biochemistry 1988 ; 27 : 5074 – 82.

Lirtgarten MA. Nature of periodontal diseases : pathogenic mechanisms. J Periodont Res 1987 ; 22 : 172-8.

Listgarten MA. A perspective on microbial diagnosis. J Clin Periodontal 1986 ; 13 : 175-81.

Löe H, and Silness J. Periodontal Disease in Pregnancy. Acta Odontal Scand 1963 ; 21 : 533-7.

Loesche WJ, Syed SA, Schmidt E, et al., Bacterial profiles of subgingival plaques in periodontitis. J Periodont 1985 ; 56 : 447-56.

Lowry OH, Rosebrough NJ, Farr AL, et al. Protein measurement with the Folin-phinol reagents. J. Biol Chem 1951 ; 193 : 265-75.

Mayrand D, and Holt SC. Biology of a saccharlytic black – pigmented bacteroides species. Microbiol Rev 1988 ; 52 : 134-52.

Moore WEC. Microbiology of periodontal disease. J. Periodontal 1987 ; 22 : 335-41.

Nakamura M, and Slots J. Salivary enzymes. Origin and relationship to periodontal disease. J Periodont Res 1983 ; 18 : 559-69.

Nieminen A, Nordlund M, and Uitto UJ. The effect of treatment on the activity of salivary protease and glycosidases in adult with advanced periodontitis. J Periodontal 1993 ; 64 : 297-301.

Page R. The role of inflammatory mediators in the pathogenous of periodontal disease. J Periodontal Res 1991 ; 26 : 230-42.

Peterson GL. Determination of protein content in mixed human saliva. Anal Biochem 1977 ; 83: 346-56.

Potempa J, Banbula A, and Travis J. Role of bacterial proteinase in matrix destruction and modulation of host responses. Periodontology 2000 1997 ; 4 : 153-92.

Potempa J, Pavloff N, and Travis J. Porphyromonas gingivalis : a proteinase / gene accounting audit. Trends Microbiol 1995 ; 3 : 430-4.

Potempa J, Pike R, and Travis J. Titration and mapping of the active site of cysteine proteinase from Porphyromonas gingivalis (gingpains) using peptidyl chloromethanes. Biol chem 1997 ; 378 : 223-30.

Power JC, Gupton BF, Harley AD, et al. Specificity of poreine pancreatic elastase, human leucocytes elastase and cathepsin G. Inhibition with peptide chloromethyl ketones. Biochem Biophys Acta 1977 ; 485 : 156-9.

Renvert S, Dahten G, and Wikstrom M. Treatment of periodontal disease based on microbiological prognosis. Relation between microbiological and clinical parameters during 5 years. J Periodontal 1996 ; 67 : 562-71.

Roitt IM, and Lehner T. Immunology of oral diseases. 2nd ed. Oxford : Blackwell Scientific Publications, 1983.

Saitoh E, Kim H, Smitheis O, et al., Human cysteine-proteinase inhibitors: nucleotide sequence analysis of these members of cystatin gene family. Gene 1987 ; 61 : 329-38.

Sandholm L. Proteases and their inhibitors in chronic inflammatory Periodontal disease. J Clin Periodont 1986 ; 13 : 19-25.

Sinha S, Watorek W, Karr S, et al. Primary structure of humans neutrophil elastase. Proe Natl Acad Sci (USA) 1987 ; 84 : 2228-32.

Skaleric U, Babnik J, Curin V, et al., Immunochemical quantitation of cysteine proteinase inhibitory cystatine C in inflamed human gingiva. Arch Oral Biol 1989 ; 32 : 301-5.

Slot J, and Listgarten MA. Bacteriods gingivalis, Bacteroides intermedius and Actinobacillus actinomycetemcomitans in human periodontal disease. J Clin Periodontal 1988 ; 15 : 85-93.

Slots J, and Genca RJ. Black–pigmented Bacteriodes species, Capnocyte phage species, and antinolacillus actinomy cetemcomitans in human periodontal disease: Virulence factors in colonization, survival, and tissue destruction. J Dent Res 1984 ; 63 : 421-31.

Soder DO. Proteolytic activity in the oral cavity: Proteolytic enzymes from human saliva and dental plaque material. J Dent Res 1972 : 51 : 389-93.

Spitynagel JK. Non-oxidative antimicrobial reactions of leukocytes. In : Synderman R, ed. Contemporary topic in immunobiology, vol 14. Regulation of leukocyte function. New York : Plenum Press, 1984.

Starkey P, Barrett AJ, and Burkeigh ME. : The degradation of articular collagen by neutrophil proteinase. Biochem. Biophys Acta 1977 ; 483 : 386-9 .

Stein T, Cohen JR, and Wise L. Determination of elastase activity by reversed-phase High performance liquid chromatography. J Chromatography 1989 ; 461 : 267-70.

Suddick RP, Hyde RJ, and Feller RP. Salivary water and electrolytes and oral health. In : Manakes, L, ed. The biological basis of dental caries. New York : Harper & Row, 1980.

Taichman NS, Dean RT, and Sanderson CJ. Biochemical and morphalogical characterization of the killing of human monocytes by a leukotexin derived from Actinobacillus actinomycetmeanition. Infect Immuno 1980 ; 28 : 259-68.

Talbott K, Mondel I, and Chilton N. Reduction of baseline gingivitis scores in repeated prophylaxis. J Prev Dent 1977 ; 4 : 28-9.

Traen BR, Ascherman D, Atlas D, et al. Cloning and expression of the gene for the major excreted protein of transformed mouse fibroblasts. A secreted lysosomal protease regulated by transformation. J Biol Chem 1988 ; 263 : 254-8.

Troen B, Ascherman D, Atlas D, et al., Cloning and expression of the gene for the major excreted protein of transformed mouse fibroblasts. J Biol Chem 1988 ; 263 : 254-60.

Tussing MI. Process in pathology and microbiology, 2nd ed. Oxford : Blackwell Scientific Publications, 1984.

Uitto VJ, Nieminess A, and Larjava HJ. Oral fluid elastase as an indicator of periodontal health. Clin Periodontal 1996 ; 23 : 30-7.

Umeda M, Tominaga Y, He T, et al. Microbial flora in the acute phase of periodontitis and the effect of local administration of minocycline. J Periodontal 1996 ; 67 : 422-7.

Wang P. Toll–like receptor 4-mediated signal pathway induced by Porphyromonas gingivalis lipopolysaccharide in human gingival fibroblasts. Biochem Biophys Res Commun 2000 ; 273 : 1161-7.

Watanabe T, Ohata N, and Morishita M, et al. Correlation between the protease activities and the number of epithelia cells in human saliva. J Dent Res 1981 ; 60 : 1039-44.

Werb Z. Proteinase and matrix degradation. Textbook of rheumatology 1983 ; 18 : 300-21.

Williams RC. Periodontal disease. N Engl J Med 1990 : 327 : 373-82.

Wu-Yaun CD, Chin CY, and Wu RT. Gallatonins inhibit growth water insoluble glucan synthesis, and aggregation of mutan streptococi. J Dent Res 1988 ; 97 : 51-5.