

- MacKenzie, A.R., Pick, C.R., Sibley, P.R., and White, B.P.** 1978. Suppression of rat adjuvant disease by cyclophosphamide pretreatment: Evidence for an antibody mediated component in the pathogenesis of the disease. *Clin. Exp. Immunol.* 32: 86-96.
- Mackey, J.P.** 1974. A double-blind clinical study of bufexamac and fluocinolone acetonide in dermatitis. *J. Ir. Med. Assoc.* 67: 214-216.
- MacLean, F.I., Lucis, O.J., Shakh, Z.A., and Jansz, E.R.** 1972. The uptake and subcellular distribution of cadmium and zinc in micro-organisms. *Fed. Proc.* 31: 699. (Abstr.)
- MacPherson, B., and Pfeiffer, C.J.** 1976. Experimental colitis. *Digestion* 14: 424-452.
- McPherson, B.A., McGill, L.A., and Bodyfelt, F.W.** 1978. Effect of stabilizing agents and aspartame on the sensory properties of orange sherbet. *J. Food Sci.* 43: 935-939.
- Madan, B.R., Godhwani, J.L., Dadhich, A.P., Soni, R.K., Ghosal, S.K., and Mahatma, O.P.** 1972. Phytochemical pharmacodynamic and anti-inflammatory properties of *Prosopis spicigera* stem bark. *Indian J. Physiol. Pharmacol.* 16: 145-150.
- Madlener, J.C.** 1977. *The Seavegetable Book*. C.N. Potter, New York.
- Maeda, T.** 1974. Carrageenan coagulant for purification of protein-containing waste water. *Japanese Patent (unexamined)* 74 79374.
- Manes, M., and Mann, J.P.** 1974. Easily swallowed formulations of antidote charcoal. *Clin. Toxicol.* 7: 355-364.
- Manhas, M.S., Sharma, S.D., and Amin, S.G.** 1972. Heterocyclic compounds. IV. Synthesis and anti-inflammatory activity of some substituted thienopyrimidones. *J. Med. Chem.* 15: 106-107.
- Mankes, R., and Abraham, R.** 1975. Lysosomal dysfunction in colonic submucosal macrophages of rhesus monkeys caused by degraded iota carrageenan. *Proc. Soc. Exp. Biol. Med.* 150: 166-170.
- Mankes, R.F.** 1977. *Safety Evaluation of Iridaea Carrageenans in the Rat Including a Study of the Mechanisms of Liver Atrophy*. Ph.D. Thesis, Albany Medical College, Union University, Schenectady, N.Y.
- Marcelletti, J., and Furmanski, P.** 1978. Spontaneous regression of Friend virus-induced erythroleukemia. III. The role of macrophages in regression. *J. Immunol.* 120: 1-8.
- Marcus, R., and Watt, J.** 1974. Ulcerative disease of the colon in laboratory animals induced by pepsin inhibitors. *Gastroenterology* 67: 473-483.
- Marcy, R.** 1972. Effects of aprotinin administered by para and intra articular routes. I. Experimental study. *Therapie* 27: 1021-1030. (in French)
- Marcy, R., Quermonne, M.A., and Marcais, H.** 1972. Synergistic effect of estriol succinate on the anti-inflammatory activity of phenylbutazone on the carrageenan induced edema in the paw of the rat. *Therapie* 27: 1015-1019. (in French)
- Marine Plants Experimental Station, Miminegash, Prince Edward Island.** 1972. Annual report, 1971-72. Environment Canada, Fisheries Service, Industrial Development Branch, Ottawa, 41 pp.
- Marine Plants Experimental Station, Miminegash, Prince Edward Island.** [1972]. Program 1972-73. Environment Canada, Fisheries Service, Industrial Development Branch, Ottawa, 19 pp.
- Marine Plants Experimental Station, Miminegash, Prince Edward Island.** 1973. Annual report, 1972-73. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, 51 pp.
- Marine Plants Experimental Station, Miminegash, Prince Edward Island.** 1973. Program 1973-74. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, 9 pp.
- Marine Plants Experimental Station, Miminegash, Prince Edward Island.** [1974]. Annual report, 1973-74. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, 51 pp.

- Marine Plants Experimental Station, Miminegash, Prince Edward Island. [1974]. Program 1974-75. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, 9 pp.
- Marine Plants Experimental Station, Miminegash, Prince Edward Island. 1975. Annual Report, 1974-75. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, 92 pp.
- Marquez, M., and Roberts, D.J.** 1974. Pharmacological properties of thiazolinobutazone (LAS 11,871). I. Anti-inflammatory effects. *Arzneim. Forsch.* 24: 1786-1789.
- Marshall, S.G., and Vaisey, M.** 1972. Sweetness perception in relation to some textural characteristics of hydrocolloid gels. *J. Texture Stud.* 3: 173-185.
- Martel, R.R., and Klicius, J.** 1976. Anti-inflammatory and analgesic properties of etodolac acid in rats. *Can. J. Physiol. Pharmacol.* 54: 245-248.
- Martel, R.R., Klicius, J., and Herr, F.** 1974. Determination of the therapeutic mean effective doses of several anti-inflammatory agents in adjuvant arthritic rats. *Can. J. Physiol. Pharmacol.* 52: 791-796.
- Martel, R.R., Klicius, J., and Herr, F.** 1974. Investigation of 1,3,4,9-tetrahydro-1-propylpyrano[3,4-b]indole-1-acetic acid (prodolic acid), a new nonsteroidal anti-inflammatory agent in rats. *Agents Actions* 4: 370-376.
- Martel, R.R., Rochefort, J.G., Klicius, J., and Dobson, T.A.** 1974. Anti-inflammatory properties of furobufen. *Can. J. Physiol. Pharmacol.* 52: 669-673.
- Maruyama, Y., Imayoshi, T., Goto, K., and Kadobe, Y.** 1977. Pharmacological studies of 2-(5H-[1]benzopyrano[2,3-b]pyridin-7-yl) propionic acid (Y-8004). III. Interactions of Y-8004 with anti-inflammatory agents. *Nippon Yakurigaku Zasshi* 73: 113-122. (in Japanese)
- Maruyama, Y., Terasawa, M., Anami, K., and Kadobe, Y.** 1975. Pharmacological studies of 2-(5H-[1]benzopyrano[2,3-b]pyridin-7-yl)propionic acid (Y-8004). I. Anti-inflammatory, analgesic and antipyretic activities. *Nippon Yakurigaku Zasshi* 71: 857-873. (in Japanese)
- Mason, C.P.** 1977. Studies of marine algal proteins using acrylamide gel electrophoresis. *J. Phycol.* 13(Suppl.): 44. (Abstr.)
- Masumoto, S., and Masuda, C.** 1976. Inhibitory effect of 2-(2-fluoro-4-biphenyl) propionic acid (Flurbiprofen) on prostaglandin synthesis. *Nippon Yakurigaku Zasshi* 72: 1025-1031. (in Japanese)
- Masumoto, S., and Masuda, C.** 1976. The mechanism of anti-inflammatory action of 2-(2-fluoro-4-biphenyl) propionic acid (Flurbiprofen). *Nippon Yakurigaku Zasshi* 72: 753-762. (in Japanese)
- Mathieson, A.C.** 1975. Seaweed aquaculture. *Mar. Fish. Rev.* 37: 2-14.
- Mathieson, A.C., and Burns, R.L.** 1975. Ecological studies of economic red algae. V. Growth and reproduction of natural and harvested populations of *Chondrus crispus* Stackhouse in New Hampshire. *J. Exp. Mar. Biol. Ecol.* 17: 137-156.
- Mathieson, A.C., and Norall, T.L.** 1975. Photosynthetic studies of *Chondrus crispus*. *Mar. Biol.* 33: 207-213.
- Mathieson, A.C., and Prince, J.S.** 1973. Ecology of *Chondrus crispus*, Stackhouse. *Proc. N.S. Inst. Sci.* 27: (Suppl., *Chondrus crispus*): 53-79.
- Mathieson, A.C., and Tveter, E.** 1975. Carrageenan ecology of *Chondrus crispus*. *Aquat. Bot.* 1: 25-43.
- Mathieson, A.C., and Tveter, E.** 1976. Carrageenan ecology of *Gigartina stellata* (Stackhouse) Batters. *Aquat. Bot.* 2: 353-361.
- Mathieson, A.C., and Tveter, E.** 1977. Spore discharge ecology of *Chondrus crispus* Stackhouse. *J. Phycol.* 13(Suppl.): 44. (Abstr.)
- Mathieson, A.C., Tveter, E., Daly, M., and Howard, J.** 1977. Marine algal ecology in a New Hampshire tidal rapid. *Bot. Mar.* 20: 277-290.
- Matsuhiro, B., and Zanlungo, A.B.** 1976. Polysaccharides of Chilean algas. Study on *Iridaea ciliata*. *Rev. Latinoam. Quim.* 7: 119-123. (in Spanish)

- Matsuhiro, B., and Zanlungo, A.B.** 1976. Polysaccharides from Chilean seaweeds. II. Studies on *Iridaea laminariooides*. *Bot. Mar.* 19: 317-321.
- Matsuki, K., Arashima, H., Takei, H., Urata, E., and Iwabuchi, T.** 1976. Anti-inflammatory activity of bufexamac in laboratory animals. *Oyo Yakuri* 11: 401-419. (in Japanese)
- Mattingly, J.A., and Waksman, B.H.** 1978. Immunologic suppression after oral administration of antigen. I. Specific suppressor cells formed in rat Peyer's patches after oral administration of sheep erythrocytes and their systematic migration. *J. Immunol.* 121: 1878-1883.
- Matulewicz, M.C., and Cerezo, A.S.** 1975. Rapid turbidimetric method for determination of precipitation curves of carrageenans. *J. Sci. Food Agric.* 26: 243-250.
- Meacock, S.C.R., and Kitchen, E.A.** 1976. Some effects of nonsteroidal anti-inflammatory drugs on leukocyte migration. *Agents Actions* 6: 320-325.
- Megel, H., Raychaudhuri, A., Bayer, M., and Beaver, T.H.** 1978. The immunopharmacologic and anti-inflammatory properties of RMI 9563 with special reference to its effect on the complement system. *Agents Actions* 8: 218-228.
- Megel, H., Raychaudhuri, A., Shemano, I., Beaver, T.H., and Thomas, L.L.** 1975. The anti-inflammatory actions of tilorone hydrochloride. *Proc. Soc. Exp. Biol. Med.* 149: 89-93.
- Melnik, C.S.** 1975. Experimental colitis. In *Inflammatory Bowel Disease* (ed. Kirsner, J.B., and Shorter, R.G.) Lea and Febiger, Philadelphia. pp. 23-36.
- Melville, L.A.** 1976. The development of the Irish moss industry in New England and Canada's Maritime provinces. *Mar. Affairs J.* 4: 49-62.
- Menge, J.L.** 1975. *Effect of Herbivores on Community Structure of the New England Rocky Intertidal Region: Distribution, Abundance and Diversity of Algae*. Ph.D. Thesis, Harvard University, Cambridge, Mass.
- Menkes, C.J., Piatier-Piketty, D., Zucman, J., and Delbarre, F.** 1972. Effects of articular injections of osmic acid in the rabbit. Influence on bone growth. *Rev. Rhum. Mal. Osteo-Articulaires* 39: 513-521. (in French)
- Mezey, K.C. and Van Arman, C.G.** 1975. Methodology of testing new anti-inflammatory drugs. In *Inflammation and Anti-inflammatory Therapy* (ed. Katona, G., and Blengio, J.R.) Spectrum, New York, pp. 279-289.
- Michanek, G.** 1975. Seaweed resources of the ocean. *FAO Fish. Tech. Pap.* 138: 1-127.
- Michanek, G.** 1978. Trends in applied phycology. With a literature review: Seaweed farming on an industrial scale. *Bot. Mar.* 21: 469-475.
- Mikos, E.** 1975. Prostaglandins in inflammatory reactions. *Pol. Tyg. Lek.* 30: 123-125. (in Polish)
- Milanino, R., Mazzoli, S., Passarella, E., Tarter, G., and Velo, G.P.** 1978. Carrageenan edema in copper-deficient rats. *Agents Actions* 8: 618-622.
- Miler, I.** 1973. The role of nonspecific opsonins in the in vivo and in vitro uptake of *Escherichia coli* by RE cells of newborn germ-free piglets. In "Non-specific" Factors Influencing Host Resistance (ed. Braun, W.) Karger, Basel. pp. 111-128.
- Miler, I.** 1973. The role of nonspecific serum opsonins in the in vitro interaction adherence between peritoneal macrophages of new born precolostral piglets and rough strain of *Escherichia coli*. *Folia Microbiol.* 18: 514-521.
- Miler, I. and Stelzner, A.** 1975. The in vitro and in vivo effects of carrageenan on humoral and cellular factors of natural resistance. *Folia Microbiol.* 20: 251-260.
- Militzer, K.** 1975. Histometrical investigations on carrageenan and Freund's complete adjuvant-induced paw inflammation in rats. *Arzneim. Forsch.* 25: 1884-1889. (in German)
- Militzer, K.** 1976. Histometric investigations on the epidermis and corium of rat paw after experimental inflammation. *Arch. Dermatol. Forsch.* 256: 151-166. (in German)

- Militzer, K., and Reinhard, H.J.** 1974. Quantitative histometric investigations on paw edema induced by carrageenin, formalin and aerosil in rats. *Exp. Pathol.* 9: 342-353. (in German)
- Milk substitute for animals.** 1978. *Belgian Patent* 857,560.
- Miller, R.L.** 1972. Rapid assay for lysyl-protocollagen hydroxylase activity. *Anal. Biochem.* 45: 202-210.
- Millonig, R.C., Goldlust, M.B., Maguire, W.E., Rubin, B., Schulze, E., Wojnar, R.J., Turkheimer, A.R., Schreiber, W.F., and Brittain, R.J.** 1973. Anti-inflammatory activities of 2-acetyl- and 2-(1-hydroxyethyl)-4-[3-(dimethylamino)propyl]-3,4-dihydro-3-phenyl-2H-1,4-benzothiazine. *J. Med. Chem.* 16: 780-782.
- Millonig, R.C., and Yiakas, E.** 1977. Halcinonide. *Pharmacol. Biochem. Prop. Drug. Subst.* 1: 215-231.
- Mimura, T., Onishi, N., Toyoda, S., Muto, N., and Aonuma, S.** 1977. Separation and identification of fatty acids as anti-inflammatory principle from mycelium of *Streptomyces* sp. *Yakugaku Zasshi* 97: 1240-1245. (in Japanese)
- Mimura, T., Onishi, N., Toyoda, S., Tsujibo, H., Masumoto, M., and Aonuma, S.** 1977. Effects of various fatty acids on stabilization of rat erythrocyte and carrageenan induced edema. *Yakugaku Zasshi* 97: 1246-1252. (in Japanese)
- Mimura, T., Onishi, N., Tsujibo, H., Masumoto, M., and Aonuma, S.** 1978. Effect of various C₁₆ fatty acids, isopentadecanoic and isomargaric acids, on stabilization of rat erythrocytes and carrageenin-induced edema. *Chem. Pharm. Bull.* 26: 1316-1319.
- Minashima, H., and Noda, S.** 1973. Delayed hypersensitivity to carrageenan. *Arerugi* 22: 169-170. (Abstr. in Japanese)
- Misaka, E., Matsuda, K., Kobayashi, K., Endo, Y., Kojima, T., and Iizuka, Y.** 1978. Purification and characterization of an anti-inflammatory factor from bovine serum. *Agents Actions* 8: 442-451.
- Mitchell, J.R.** 1976. Rheology of gels. *J. Texture Stud.* 7: 313-339.
- Mitsuyama, M., Takeya, K., Nomoto, K., and Shimotori, S.** 1978. Three phases of phagocyte contribution to resistance against *Listeria monocytogenes*. *J. Gen. Microbiol.* 106: 165-172.
- Mizushima, Y., Akaoka, I., and Nishida, Y.** 1975. Effects of magnetic field on inflammation. *Experientia* 31: 1411-1412.
- Mizushima, Y., Murata, J., and Horiuchi, Y.** 1974. Use of carrageenan as an adjuvant of delayed hypersensitivity. *Int. Arch. Allergy Appl. Immunol.* 47: 532-536.
- Mizushima, Y., and Noda, M.** 1973. Induction of delayed hypersensitivity by carrageenan. *Experientia* 29: 605-606.
- Mizushima, Y., Tsukada, W., and Akimoto, T.** 1972. Mode of antiallergic action of some immunosuppressive drugs. *Arerugi* 21: 535-539. (in Japanese)
- Mizushima, Y., Tsukada, W., and Akimoto, T.** 1972. A modification of rat adjuvant arthritis for testing antirheumatic drugs. *J. Pharm. Pharmacol.* 24: 781-785.
- Mizushima, Y., Wada, Y., and Yasuhira, K.** 1974. Delayed hypersensitivity induced by carrageenan. *Int. Arch. Allergy Appl. Immunol.* 46: 731-739.
- Moeller, H.W., Churchill, A.C., and Giordano, S.** 1973. Experimental farming Chondrus crispus in temperate and tropical waters. *J. Phycol.* 9(Suppl.): 11. (Abstr.)
- Moersdorf, K., Knippertz, T., Rausch, K.D., and Domenjoz, R.** 1972. Anti-phlogistic activity of cytostatics. *Pharmacology* 7: 209-215.
- Moersdorf, K., and Wolf, G.** 1972. Comparative efficiency of new anti-inflammatory compounds. *Arzneim. Forsch.* 22: 2105-2110. (in German)
- Moersdorf, K., and Wolf, G.** 1977. Efficiency of new anti-inflammatory drugs. A comparative study. *Arzneim. Forsch.* 27: 531-533. (in German)
- Moirano, A.L.** 1974. Degraded modified seaweed extractive and compositions containing same. *U.S. Patent* 3,849,395.
- Moirano, A.L.** 1977. Sulfated seaweed polysaccharides. In *Food Colloids* (ed. Graham, H.D.) Avi, Westport, Conn. pp. 347-381.

- Mollion, J.** 1978. Seasonal variations in the carrageenan from *Hypnea musciformis*, (Florideophyceae) in Senegal. *Proc. Int. Seaweed Symp.* 9: 233-240.
- Moncada, S., Ferreira, S.H., and Vane, J.R.** 1973. Prostaglandins, aspirinlike drugs, and the edema of inflammation. *Nature (London)* 246: 217-219.
- Moncada, S., Ferreira, S.H., and Vane, J.R.** 1975. Inhibition of prostaglandin biosynthesis as the mechanism of analgesia of aspirin-like drugs in the dog knee joint. *Eur. J. Pharmacol.* 31: 250-260.
- Moneymaker, J.R., and Meyer, M.C.** 1973. Frozen confection stabilizer systems. *British Patent* 1,335,502.
- Moneymaker, J.R., and Meyer, M.C.** 1974. Frozen confection stabilizer systems. *U.S. Patent* 3,845,223.
- Monis, B., and Valentich, M.A.** 1973. Secondary lysosomes of macrophages structure and biochemistry. *Acta Physiol. Lat. Am.* 23: 667-669.
- Moore, E., and Trottier, R.W.** 1974. Comparison of various types of carrageenan in promoting pedal edema in the rat. *Res. Commun. Chem. Pathol. Pharmacol.* 7: 625-628.
- Moore, G.G.I., Harrington, J.K., and Swingle, K.F.** 1975. Anti-inflammatory fluoroalkanesulfonanilides. III. Other fluoroalkanesulfonamidodiarly systems. *J. Med. Chem.* 18: 386-391.
- Mori, K.J., Kumagai, K., and Ito, Y.** 1978. Effects of carrageenan on radiation lethality. *J. Radiat. Res.* 19: 228-235.
- Morii, I., Nozaki, M., Tsurumi, K., and Fujimura, H.** 1976. Chemical mediators in carrageenan-induced inflammation. I. Relationship with prostaglandins. *Jpn. J. Pharmacol.* 26 (Suppl.): 130P. (Abstr.)
- Morii, I., Nozaki, M., Tsurumi, K., and Fujimura, H.** 1977. Chemical mediators in carrageenan-induced inflammation, the relationship with prostaglandins. II. *Nippon Yakurigaku Zasshi* 73: 14P. (Abstr., in Japanese)
- Morii, I., Tsurumi, K., and Fujimura, H.** 1975. Peritoneal inflammation due to carrageenan and chemical mediators. *Nippon Yakurigaku Zasshi* 71: 165P (Abstr., in Japanese)
- Morisawa, S., Ishizaka, S., and Otani, S.** 1978. Studies on the macrophage dependency of immune responses by treatment with carrageenan. *Recent Adv. RES Res.* 17: 52-63.
- Moriwaki, C., Kizuki, K., and Moriya, H.** 1978. Mushroom kininase, its application to the kallikrein kinin system. *Agents Actions* 8: 154-155.
- Moriya, H., Nagase, H., Hojima, Y., Ikekita, M., and Moriwaki, C.** 1978. Anti-bradykinin activity found in beet and some of its anti-inflammatory actions. *Agents Actions* 8: 162.
- Morley, R.G., Phillips, G.O., Power, D.M., and Morgan, R.E.** 1972. Fractionation and identification of commercial hydrocolloid stabilizing agents. *Analyst (London)* 97: 315-319.
- Morris, E.R.** 1974. Polysaccharide conformation as a basis of food structure. In *Molecular Structure and Function of Food Carbohydrate* (ed. Birch, G.C., and Green, L.F.) Halstead, New York. pp. 125-132.
- Morris, E.R., Rees, D.A., Welsh, E.J., Dunfield, L.G., and Whittington, S.G.** 1978. Relation between primary structure and chain flexibility of random coil polysaccharides: Calculation and experiment for a range of model carrageenans. *J. Chem. Soc. Perkin Trans. II:* 793-800.
- Morrison, R.** 1973. Irish moss and its potential in New Brunswick. New Brunswick Department of Fisheries and Environment, Research and Development Branch, Buctouche, N.B., 65 pp.
- Morrison, R.** 1974. Irish moss aquaculture, Pointe Sapin, N.B. New Brunswick Department of Fisheries and Environment, Research and Development Branch, Buctouche, N.B., 37 pp.

- Moss, J.R.** 1977. Essential considerations for establishing seaweed extraction factories. In *The Marine Plant Biomass of the Pacific Northwest Coast* (ed. Krauss, R.W.) Oregon State University Press, Corvallis, pp. 301-314.
- Mottet, N.K.** 1972. On animal models for inflammatory bowel disease. *Gastroenterology* 62: 1269-1271.
- Mshigeni, K.E.** 1976. Field cultivation of *Hypnea* (Rhodophyta) spores for carrageenan: Prospects and problems. *Bot. Mar.* 19: 227-230.
- Mshigeni, K.E.** 1978. The biology and ecology of benthic marine algae with special reference to *Hypnea* (Rhodophyta, Gigartinales): A review of the literature. *Bibl. Phycol.* 37: 1-168.
- Mshigeni, K.E., and Semesi, A.K.** 1977. Studies on carrageenans from the economic red algal genus *Eucheuma* in Tanzania. *Bot. Mar.* 20: 239-242.
- Muchmore, A.V., Nelson, D.L., Kirchner, H., and Blaese, R.M.** 1975. A reappraisal of the effector cells mediating mitogen-induced cellular cytotoxicity. *Cell. Immunol.* 19: 78-90.
- Mumford, T.F.** 1977. Growth of Pacific Northwest marine algae on artificial substrates, potential and practice. In *The Marine Plant Biomass of the Pacific Northwest Coast* (ed. Krauss, R.W.) Oregon State University Press, Corvallis, pp. 139-161.
- Mumford, T.F.** 1978. Field and laboratory experiments with *Iridaea cordata* (Florideophyceae) grown on nylon netting. *Proc. Int. Seaweed Symp.* 9: 515-523.
- Munda, I.** 1975. Hydrographically conditioned floristic and vegetation limits in Icelandic coastal waters. *Bot. Mar.* 18: 223-235.
- Munda, I.** 1977. The structure and distribution of the *Gigartina stellata* and *Chondrus crispus* associations in Icelandic waters. *Bot. Mar.* 20: 291-302.
- Murakami, K., and Ishibashi, S.** 1972. Change in energy metabolism of proliferating granuloma tissue in response to insulin and 2-deoxyglucose. *Horm. Metab. Res.* 4: 77-82.
- Murakami, K., and Ishibashi, S.** 1972. Insulin-like effect of sulfhydryl inhibitor on hexokinase isoenzyme of rat granuloma tissue in vitro and the opposite effect of sulfhydryl compound. *Endocrinol. Jpn.* 19: 115-119.
- Murakami, K., and Ishibashi, S.** 1972. Regulation of hexokinase isozymes: Apparent interconversion between type II and type III or inactive enzyme complex formation in rat tissues. *J. Biochem.* 71: 675-684.
- Muro, T., Nakao, T., Ogawa, K., Maruyama, Y., and Anami, K.** 1977. Studies on anti-inflammatory agents. XLVI. Studies on the synthesis and analgesic-anti-inflammatory activities of phenylacetic acid derivatives bearing heteroaromatic rings. *Yakugaku Zasshi* 97: 835-848. (in Japanese)
- Murota, S., Mitsui, Y., Koshihara, Y., and Tsurufuji, S.** 1974. Separation and cultivation of acidic glycosaminoglycans producing cells from rat carrageenan granuloma. *Ketsugo Soshiki* 6: 55-65.
- Murota, S.I., Abe, M., and Otsuka, K.** 1977. Stimulatory effect of prostaglandins on the production of hexosamine-containing substances by cultured fibroblasts. III. Induction of hyaluronic acid synthetase by prostaglandin F₂*a*. *Prostaglandins* 14: 983-992.
- Murota, S.I., Abe, M., Otsuka, K., and Chang, W.C.** 1977. Stimulative effect of prostaglandins on production of hexosamine containing substances by cultured fibroblasts. II. Early effect of various prostaglandins at various doses. *Prostaglandins* 13: 711-717.
- Murota, S.I., Koshihara, Y., and Tsurufuji, S.** 1976. Effects of cortisol and tetrahydrocortisol on the cloned fibroblast derived from rat carrageenan granuloma. *Biochem. Pharmacol.* 25: 1107-1113.

- Murota, S.I., Morita, I., Tsurufuji, S., Sato, H. and Sugio, K.** 1978. Effect of prostaglandin I_2 and related compounds on vascular permeability response in granuloma tissues. *Prostaglandins* 15: 297-302.
- Mutagenic evaluation of compound FDA 71-3, sodium carrageenan.** 1972. U.S. NTIS, PB-245471, 91 pp.
- Mutagenic evaluation of compound FDA 71-3; 977007-70-7, sodium carrageenan (viscarin).** 1975. U.S. NTIS, PB-254515, 42 pp.
- Mutagenic evaluation of compound FDA 71-5; 977052-14-4, calcium carrageen.** 1975. U.S. NTIS, PB-267347, 42 pp.
- Nagase, H., Hojima, Y., Moriwaki, C., and Moriya, H.** 1975. Anti-bradykinin activity found in beet (*Beta vulgaris* L. var.*rapa* Dumort. f. *rubra* DC). *Chem. Pharm. Bull.* 23: 971-979.
- Naik, S.R., Kalyanpur, S.G., and Sheth, U.K.** 1972. Effects of anti-inflammatory drugs on glutathione levels and liver succinic dehydrogenase activity in carrageenin edema and cotton pellet granuloma in rats. *Biochem. Pharmacol.* 21: 511-516.
- Naik, S.R., Kelkar, M.R., and Sheth, U.K.** 1972. Effect of stress on carrageenin inflammation in rats. *Indian J. Med. Res.* 60: 1316-1322.
- Naik, S.R., Naik, P.M., Chinwalla, T.S., Valame, S.P., and Sheth, U.K.** 1978. Some biochemical effects of anti-rheumatic drugs. *Biochem. Pharmacol.* 27: 353-355.
- Naito, S., Sekishiro, K., Awataguchi, M., and Izushi, F.** 1972. Biopharmaceutical studies on aminoethanesulfonylpiperidine and related compounds. I. Absorption, excretion, metabolism, and some pharmacological activities. *J. Pharm. Sci.* 61: 198-202.
- Naito, S., and Shimizu, S.** 1973. 2-(Aminoethanesulfonylamino) thiazole and related compounds. I. Stability, absorption, excretion, and some pharmacological activities. *J. Pharm. Sci.* 62: 82-87.
- Nakagawa, H., Aihara, K., and Tsurufuji, S.** 1977. The role of cathepsin B1 in the collagen breakdown of carrageenan granuloma in rats. *J. Biochem.* 81: 801-804.
- Nakagawa, H., Ikeda, M., and Tsurufuji, S.** 1975. Protective action of an anti-inflammatory steroid on collagen synthesis in rat carrageenan granuloma in vitro. *J. Pharm. Pharmacol.* 27: 794-796.
- Nakagawa, H., Izumi, U., and Tsurufuji, S.** 1977. The presence of partially degraded collagen fragments in the resorbing granulation tissue in rats. *Biochem. Biophys. Res. Commun.* 79: 260-266.
- Nakagawa, H., Ohkoshi, K., and Tsurufuji, S.** 1976. Effect of D-penicillamine and beta-aminopropionitrile on collagen breakdown of carrageenan granuloma in rats. *Biochem. Pharmacol.* 25: 1129-1132.
- Nakagawa, H., Shuto, K., Nanjo, K., and Tsurufuji, S.** 1978. Influence of calcium ethylenediaminetetraacetate on the metabolism of collagen and noncollagen proteins of carrageenan granuloma in rats. *Biochem. Pharmacol.* 27: 1979-1981.
- Nakagawa, H., and Tsurufuji, S.** 1972. Action of betamethasone disodiumphosphate on the metabolism of collagen and noncollagen protein in rat carrageenin granuloma. *Biochem. Pharmacol.* 21: 839-846.
- Nakagawa, H., and Tsurufuji, S.** 1972. Evidence for the inhibition of protocollagen biosynthesis by an anti-inflammatory steroid in rat carrageenin granuloma. *Biochem. Pharmacol.* 21: 1884-1886.
- Nakagawa, H., and Tsurufuji, S.** 1975. Collagenolytic activity of carrageenan granuloma in rats. *Biochim. Biophys. Acta* 411: 316-324.
- Nakamura, E., Kimura, M., Kato, R., Yoshihara, T., and Toshimitsu, Y.** 1975. Biological activities of synthesized corticoid. III. Activities of 21-chloro-9 alpha-fluoro-11 beta-hydroxy-16 beta-methyl-17 alpha-propionyloxypregna-1,4-diene-3,20-dione. *Kyoritsu Yakka Daigaku Kenkyu Nempo* 19: 13-25. (in Japanese)

- Nakamura, H., and Shimizu, M.** 1974. Early and delayed phases of hind paw edema in rats. *Jpn. J. Pharmacol.* 24: 393-405.
- Nakamura, S., Fukuda, H., Yamamoto, T., Ogura, M., Hamada, M., Matsuzaki, M., and Umezawa, H.** 1972. Alkinonase A and AF, new alkaline proteinases produced by *Streptomyces violaceorectus*. *Chem. Pharm. Bull.* 20: 385-390.
- Nakamura, T.** 1977. Biochemical studies on the polysaccharides of several kinds of red algae. *Kyushu Joshi Daigaku Kiyo* 13: 23-32. (in Japanese)
- Nakanishi, M., and Goto, K.** 1974. Studies on anti-inflammatory agents. XXV. Effects of anti-inflammatory agents on leukocyte emigration in carrageenan peritonitis of rats. *Yakugaku Zasshi* 94: 1218-1223. (in Japanese)
- Navarro, J., Stolaroff, M., Savy, J.M., Berny, C., and Brunaud, M.** 1974. Pharmacologic study on a nonsteroid anti-inflammatory agent. Bucloxic acid (804 CB). *Arzneim. Forsch.* 24: 1368-1378. (in French)
- Naylor, J.** 1976. Production, trade and utilization of seaweeds and seaweed products. *FAO Fish. Tech. Pap.* 159: 1-73.
- Neish, A.C.** 1972. Marine plants, an underdeveloped Canadian resource. *Natl. Res. Counc. Can. Newslett.* 4(2): 3-4.
- Neish, A.C., Chen, L.C.M., Craigie, J.S., McLachlan, J.L., Shacklock, P.F., Walter, J.A., and McCandless, E.L.** 1978. Algal polysaccharide production. *Canadian Patent* 1,044,165.
- Neish, A.C., Shacklock, P.F., Fox, C.H., and Simpson, F.J.** 1977. The cultivation of *Chondrus crispus*. Factors affecting growth under greenhouse conditions. *Can. J. Bot.* 55: 2263-2271.
- Neish, I.C.** 1976. Culture of algae and seaweeds. FAO Technical Conference on Aquaculture, Kyoto, FIR:AQ/Conf/76/R.1, 13 pp.
- Niesh, I.C.** 1976. Developments in algae and seaweed culture. *Commer. Fish Farmer* 2(5): 22-23.
- Niesh, I.C.** 1976. Role of mariculture in the Canadian seaweed industry. *J. Fish Res. Board Can.* 33: 1007-1014.
- Neish, I.C., and Knutson, L.B.** 1978. The significance of density, suspension and water movement during commercial propagation of macrophyte clones. *Proc. Int. Seaweed Symp.* 9: 451-461.
- Nelson, M., and Nelson, D.S.** 1978. Macrophages and resistance to tumours: Influence of agents affecting macrophages and delayed-type hypersensitivity on resistance to tumours inducing concomitant immunity. *Aust. J. Exp. Biol. Med. Sci.* 56: 211-224.
- Nemeth-Csoka, M.** 1974. Effect of acid mucopolysaccharides on the activation energy of collagen fibril-formation. *Exp. Pathol.* 9: 256-262.
- Netti, C., Bandi, G.L., and Pecile, A.** 1972. Anti-inflammatory action of proteolytic enzymes of animal, vegetable, or bacterial origin administered orally compared with that of known antiphlogistic compounds. *Farmaco Ed. Prat.* 27: 453-466.
- Newell, C.W., and Maxwell, W.A.** 1972. Study of mutagenic effects of calcium carrageenan (FDA 71-5). *U.S. NTIS, PB-221820*, 99 pp.
- Nicak, A., Cepelova, L., and Kohut, A.** 1975. Oedema caused by polysaccharide complex SE 29-3 109 in rats. *Bratisl. Lek. Listy* 63: 641-647. (in Slovak)
- Nickander, R., Marshall, W., Emmerson, J.L., Todd, G.C., McMahon, R., and Culp, H.W.** 1977. Fenoprofen. *Pharmacol. Biochem. Prop. Drug Subst.* 1: 183-213.
- Niebauer, G.W., Dorcsi, M., and Klaering, W.J.** 1977. Effect of homeopathic drugs on edema of rats' paws. *Wien Tierärztl. Monatsschr.* 64: 180-184, 186. (in German)
- Nishida, Y., Akaoka, I., and Mizushima, Y.** 1976. The effects of magnetic field on experimentally induced inflammation. *J. Jpn. Balneol-Climatol.* 39: 97-99. (in Japanese)
- Niwano, S.** 1975. Carrageenin. *Japanese Patent* 75 17078.

- Niwano, S.** 1975. Carrageenin. Japanese Patent 75 17079.
- Niwano, S.** 1975. Carrageenin. Japanese Patent 75 17080.
- Noordhoek, J., and Bonta, I.L.** 1972. The mechanism of the anti-inflammatory and hypotensive effect of carrageenin in rats. *Arch. Int. Pharmacodyn. Ther.* 197: 385-386.
- Noordhoek, J., and Bonta, I.L.** 1973. Anti-inflammatory mechanism of inflamed-tissue factor in hind paw inflammation by carrageenin and kaolin. *Arch. Int. Pharmacodyn. Ther.* 206: 394-396.
- Noordhoek, J., and Bonta, I.L.** 1974. Mechanism of the anti-inflammatory effect of carrageenin pouch exudate. In *Future Trends in Inflammation* (ed. Velo, G.P., Willoughby, D.A., and Giroud, J.P.) Piccin Medical Books, Padua, Italy. pp. 249-260.
- Noordhoek, J., Nagy, M.R., and Bonta, I.L.** 1977. Involvement of complement and kinins in some non-immunogenic paw inflammations in rats. *Agents Actions Suppl.* 2: 109-121.
- Norton, I.T., Goodall, D.M., Morris, E.R., and Rees, D.A.** 1978. Dynamics of the salt-induced random coil to helix transition in segmented iota-carrageenan. *J. Chem. Soc. Chem. Commun.*: 515-516.
- Nuss, G.W., Smyth, R.D., Breder, C.H., Hitchings, M.J., Mir, G.N., and Reavey-Cantwell, N.H.** 1976. The antiphlogistic, antinociceptive and antipyretic properties of fenclorac. *Agents Actions* 6: 735-747.
- Obata, S., Ohhashi, S., and Etsuyama, W.** 1972. Gel-type foods containing carrageenan. Japanese Patent 72 28092.
- Obata, S., Ohhashi, S., and Ohara, S.** 1972. Gel-type foods containing carrageenan. Japanese Patent 72 28093.
- Ochi, T., and Okuno, K.** 1977. Frozen cooked rice. Japanese Patent (unexamined) 77 156948.
- Ochi, T., and Okuno, K.** 1977. Frozen meat-vegetable food preservation. Japanese Patent (unexamined) 77 156947.
- Ohishi, S., Uchida, Y., and Katori, M.** 1977. Activation of kallikrein-kinin system in plasma by stem bromelain. *Jpn. J. Pharmacol.* 27 (Suppl.): 74P. (Abstr.)
- Ohno, T., Ishibashi, S., and Tsurufuji, S.** 1972. Mode of action of glucocorticoid on the component change and DNA turnover of rat carrageenin granuloma. *Biochem. Pharmacol.* 21: 1057-1062.
- Ohsugi, Y., Matsuno, T., and Takagaki, Y.** 1977. Mechanism of action of an anti-allergic compound; 2,4-bis(2-acetoxybenzamido) benzoic acid (AB-50): Inhibition of anaphylactic and nonanaphylactic histamine release from rat peritoneal mast cells. *Chem. Pharm. Bull.* 25: 2437-2443.
- Ohta, K., Nakao, Y., Kitagawa, T., Nishimura, H., and Morita, M.** 1975. Analgesic, anti-inflammatory and antipyretic effects of flufenamic acid. *Oyo Yakuri* 9: 421-428. (in Japanese)
- Ohuchi, K., Sato, H., and Tsurufuji, S.** 1976. The content of prostaglandin E and prostaglandin F2-alpha in the exudate of carrageenin granuloma of rats. *Biochim. Biophys. Acta* 424: 439-448.
- Ohuchi, K., Sato, H., and Tsurufuji, S.** 1977. The effects of prostaglandin F2-alpha on vascular permeability and collagen and noncollagen protein synthesis of preformed chronic carrageenin granuloma in rats. *Biochem. Pharmacol.* 26: 2049-2054.
- Okumura, O., Sakatani, T., Ohbu, K., and Kachi, M.** 1975. Detergent compositions. Japanese Patent (unexamined) 75 87102.
- Okuno, K., and Ochi, T.** 1977. Frozen, cooked food preservation. Japanese Patent (unexamined) 77 156944.
- Okuno, K., and Ochi, T.** 1977. Frozen meat preservation. Japanese Patent (unexamined) 77 156960.

- O'Loughlin, K., and Hansen, P.M.T. 1973. Stabilization of rennet treated milk protein by carrageenan. *J. Dairy Sci.* 56: 629. (Abstr.)
- Onderdonk, A.B., Hermos, J.A., and Bartlett, J.G. 1977. The role of the intestinal microflora in experimental colitis. *Am. J. Clin. Nutr.* 30: 1819-1825.
- Onderdonk, A.B., Hermos, J.A., Dzink, J.L., and Bartlett, J.G. 1978. Protective effect of metronidazole in experimental ulcerative colitis. *Gastroenterology* 74: 521-526.
- O'Rourke, M., Lang, S.A., and Cohen, E. 1977. 3-Aryl-as-triazines as potential anti-inflammatory agents. *J. Med. Chem.* 20: 723-726.
- Orzalesi, G., Selleri, R., Caldini, O., Volpato, I., Innocenti, F., Colome, J., Sacristan, A., and Varez, G. 1977. Ibuproxam and ibuprofen, a pharmacological comparison. *Arzneim. Forsch.* 27: 1006-1012.
- Otsuka, K., and Mori, Y. 1976. Inhibitory effect of D-penicillamine on degradation of hexosamine-containing substances in the involution of carrageenin granuloma induced by calcium chelate ethylenediaminetetraacetate. *Chem. Pharm. Bull.* 24: 215-219.
- Otsuka, K., Murota, S.I., and Mori, Y. 1975. Effect of bleomycin on the synthesis of hexosamine-containing substances in cultured fibroblasts. *Chem. Pharm. Bull.* 23: 3038-3039.
- Otsuka, K., Murota, S.I., and Mori, Y. 1976. Stimulatory effect of bleomycin on the synthesis of acidic glycosaminoglycans in cultured fibroblasts derived from rat carrageenin granuloma. *Biochim. Biophys. Acta* 444: 359-368.
- Otsuka, K., Murota, S.I., and Mori, Y. 1977. Effect of D-penicillamine on release of mucopolysaccharidases by lysosomal labilizers in cultured fibroblasts. *Yakugaku Zasshi* 97: 1147-1150. (in Japanese)
- Otsuka, K., Murota, S.I., and Mori, Y. 1977. Inhibitory effect of D-penicillamine on the fibrosis caused by bleomycin treatment in rat carrageenin granuloma. *Chem. Pharm. Bull.* 25: 1220-1224.
- Otsuka, K., Murota, S.I., and Mori, Y. 1978. Stimulatory effect of bleomycin on the hyaluronic acid synthetase in cultured fibroblasts. *Biochem. Pharmacol.* 27: 1551-1554.
- Ottlecz, A., and Dekov, E. 1976. Acute inflammation and lipid metabolism. *Acta Physiol. Acad. Sci. Hung.* 47: 226. (Abstr.)
- Ottlecz, A., Dekov, E., Koltai, M., and Minker, E. 1974. Anti-inflammatory activity of various agents producing hyperlipemia in rats. *Pharmacology* II: 346-357.
- Ottlecz, A., Gecse, A., Koltai, M., and West, G.B. 1977. Involvement of the kinin system in the insulin-induced inhibition of carrageenin edema in rats. *Monogr. Allergy* 12: 131-137.
- Ottlecz, A., Koltai, M., Blazso, G., and Minker, E. 1978. Contributions to the regulatory role of insulin in inflammation and anaphylaxis. *Int. Arch. Allergy Appl. Immunol.* 56: 284-286.
- Ottlecz, A., Koltai, M., and Dekov, E. 1976. Effect of insulin and alloxan diabetes on carrageenin inflammation in rats. *Int. Arch. Allergy Appl. Immunol.* 50: 548-554.
- Ottlecz, A., Koltai, M., and Gecse, A. 1977. Further studies on the anti-inflammatory effect of insulin. *Agents Actions* 7: 487-492.
- Oyanagui, Y. 1976. Participation of superoxide anions at the prostaglandin phase of carrageenan foot-edema. *Biochem. Pharmacol.* 25: 1465-1472.
- Oyanagui, Y. 1978. Inhibition of superoxide anion production in nonstimulated guinea pig peritoneal exudate cells by anti-inflammatory drugs. *Biochem. Pharmacol.* 27: 777-782.
- Ozawa, H., Ikeda, M., and Ito, N. 1972. Anti-inflammatory effects of d-2-(6-methoxy-2-naphthyl) propionic acid (Naproxen). *Oyo Yakuri* 6: 201-210. (in Japanese)
- Ozawa, T., Ochiai, Y., Nakajima, S., and Hayashi, M. 1978. Compositions for preventing dental caries. *Japanese Patent (unexamined)* 78 34934.

- Pala, G., Donetti, A., Lumachi, B., and Bonardi, G.** 1973. Analgetic-anti-inflammatory activity of prenyl derivatives of basic naphthylalkynitriles and naphthylalkylamides chemically related to naphthypramide. *J. Med. Chem.* 16: 720-723.
- Palecek, F., Vizek, M., Chvalova, M., Wachlova, M., and Holusa, R.** 1973. Regulation of breathing in disease. *Bull. Physio-Pathol. Respir.* 9: 1247. (Abstr.)
- Palmer, A.J., and Goulding, R.W.** 1974. Biosynthetic preparation of carbon-11-labeled galactose, glycerol and mannitol. *J. Labelled Compd.* 10: 627-636.
- Panayi, G.S.** 1978. Experimental models of rheumatoid arthritis. *Annu. Res. Rev. Rheum. Arthritis Relat. Cond.* 2: 133-146.
- Pangborn, R.M., and Trabue, I.M.** 1973. Gustatory responses during periods of controlled and ad lib cigarette smoking. *Percept. Psychophys.* 13: 139-144.
- Papadimitriou, J.M., Sforsina, D., and Papaelias, L.** 1973. Kinetics of multinucleate giant cell formation and their modification by various agents in foreign body reactions. *Am. J. Pathol.* 73: 349-363.
- Papadimitriou, J.M. and Spector, W.G.** 1972. The ultrastructure of high-turnover and low-turnover inflammatory granulomata. *J. Pathol.* 106: 37-43.
- Papadimitriou, J.M., and Woods, A.E.** 1975. Structural and functional characteristics of the microcirculation in neoplasms. *J. Pathol.* 116: 65-72.
- Pardo, A., and Perez-Tamayo, R.** 1974. The collagenase of carrageenan granuloma. *Connect. Tissue Res.* 2: 243-252.
- Parente, L., Ammendola, G., Persico, P., and Di Rosa, M.** 1978. Glucocortico steroids, prostaglandins and the inflammatory process. *Pol. J. Pharmacol. Pharm.* 30: 141-155.
- Park, Y.H., Pyeon, J.H., Oh, H.K., and Kang, Y.J.** 1976. Utilization of unexploited algae for food or other industrial uses. II. Carrageenan content and its chemical characteristics in several species of Rhodophyceae. *Bull. Korean Fish. Soc.* 9: 163-168. (in Korean)
- Parker, H.S.** 1974. The culture of the red algal genus *Eucheuma* in the Philippines. *Aquaculture* 3: 425-439.
- Parmar, N.S., and Ghosh, M.N.** 1977. Effect of gossypin, a bioflavonoid, on the temporal characteristics of paw oedema and increase in vascular permeability induced by carrageenin in rats. *Bull. Jawaharlal Inst. Post-Grad. Med. Educ. Res.* 2: 42-45.
- Parmar, S.S., Brumleve, S.J., Kumar, R., and Ali, B.** 1976. Studies on membrane stabilizing effects of substituted quinazolones (SQL). *Physiologist* 19: 323. (Abstr.)
- Parnham, M.J., Adolfs, M.J.P., and Bonta, I.L.** 1977. The effect of metyrapone on granuloma induced by carrageenan-impregnated sponges in normal and essential fatty-acid deficient rats. *J. Pharm. Pharmacol.* 29: 670-673.
- Parnham, M.J., Bonta, I.L., Adolfs, M.J.P. and Bragt, P.** 1977. A polyether sponge constituent which is antioxidant, anti-inflammatory and increases prostaglandin concentrations at the inflamed site. *Agents Actions* 7: 539-544.
- Parnham, M.J., Shoshan, S., Bonta, I.L. and Neiman-Wollner, S.** 1977. Increased collagen metabolism in granulomata induced in rats deficient in endogenous prostaglandin precursors. *Prostaglandins* 14: 709-714.
- Parsons, M.J., Pickmere, S.E., and Bailey, R.W.** 1977. Carrageenan composition in New Zealand species of *Gigartina* (Rhodophyta): Geographic variation and interspecific differences. *N.Z. J. Bot.* 15: 589-595.
- Paskins-Hurlburt, A.J.** 1974. *Effect of Algal and Pectic Polyelectrolytes as Gastrointestinal Binders of Lead.* Ph. D. Thesis, McGill University, Montreal.
- Paskins-Hurlburt, A.J., Tanaka, Y., and Skoryna, S.C.** 1976. Carrageenan and the binding of lead. *Bot. Mar.* 19: 59-60.

- Pass, G., Phillips, G.O., and Wedlock, D.J.** 1977. Interaction of univalent and divalent cations with carrageenans in aqueous solution. *Macromolecules* 10: 197-201.
- Pass, G., Phillips, G.O., Wedlock, D.J., and Morley, R.G.** 1978. Interaction of sulfated polysaccharides with counter-ions. *ACS Symp. Ser.* 77: 259-281.
- Pass, G., Phillips, G.O., Wedlock, D.J., and Wyn-Jones, E.** 1978. Ultrasonic studies on monovalent and divalent cation salts of carrageenans in aqueous solution. *Macromolecules* 11: 433-435.
- Patell, J.M.** 1972. A preliminary feasibility study of Irish moss harvesting systems. U.S. NTIS, COM-73-10152, 74 pp.
- Patterson, G.W.** 1977. Survey of chemical components and energy considerations. In *The Marine Plant Biomass of the Pacific Northwest Coast* (ed. Krauss, R.W.) Oregon State University Press, Corvallis. pp. 271-287.
- Pawelec, G., and Brons, G.** 1977. Effects of lambda carrageenan in primary mixed lymphocyte culture (MLC) compared with those of silica particles and physical removal of adherent cells. *IRCS Med. Sci. Libr. Compend.* 5: 154.
- Pawelec, G., and Brons, G.** 1978. Modification of lymphocyte responsiveness in vitro by lambda carrageenan compared with colloidal silica and depletion of surface adherent cells. *Clin. Exp. Immunol.* 31: 426-435.
- Payens, T.A.J. , and Snoeren, T.** 1972. Effect of simple electrolytes on the sol-gel transition of kappa-carrageenan. *J. Electroanal. Chem. Interfacial Electrochem.* 37: 291-296.
- Pedersen, J.K.** 1974. Carrageenan as a gelling and stabilizing additive. *Etelmez. Ipar* 28: 109-116. (in Hungarian)
- Pedersen, J.K.** 1977. Carrageenan. *Gordian* 77: 34,36,38.
- Pedersen, J.K.** 1977. Carrageenan in jellified meat products. *Afinidad* 34: 637-642. (in Spanish)
- Pelczarska, A.** 1974. Pharmacological studies on some anaphylactic reactions in mice. *Arch. Immunol. Ther. Exp.* 22: 779-784.
- Pelczarska, A.B., and Roszkowski, A.P.** 1973. Inhibitors of Forssman guinea pig "anaphylaxis". *J. Pharmacol. Exp. Ther.* 185: 116-126.
- Penman, A., and Rees, D.A.** 1973. Carrageenans. IX. Methylation analysis of galactan sulfates from *Furcellaria fastigiata*, *Cigartina canaliculata*, *Gigartina chamaissoi*, *Gigartina atropurpurea*, *Ahnfeltia durvillaei*, *Gymnogongrus furcellatus*, *Eucheuma isiforme*, *Eucheuma uncinatum*, *Agardhiella tenera*, *Pachymenia hymantophora* and *Gloiopektis cervicornis*. Structure of XI-carrageenan. *J. Chem. Soc. Perkin Trans. I:* 2182-2187.
- Penman, A., and Rees, D.A.** 1973. Carrageenans. X. Synthesis of 3,6-di-O-methyl-D-galactose. A new sugar from the methylation analysis of polysaccharides related to XI-carrageenan. *J. Chem. Soc. Perkin Trans. I:* 2188-2191.
- Penman, A., and Rees, D.A.** 1973. Carrageenans. XI. Mild oxidative hydrolysis of kappa- and iota-carrageenans and the characterization of oligosaccharide sulfates. *J. Chem. Soc. Perkin Trans. I:* 2191-2196.
- Percival, E.** 1972. Chemistry of agaroids, carrageenans and furcellarans. *J. Sci. Food Agric.* 23: 933-940.
- Percival, E.** 1978. Do the polysaccharides of brown and red seaweeds ignore taxonomy? In *Modern Approaches to the Taxonomy of Red and Brown Algae* (ed. Irvine, D.E.G., and Price, J.H.) Academic, London. pp. 47-62.
- Percival, E.** 1978. Sulfated polysaccharides of the Rhodophyceae, a review. *ACS Symp. Ser.* 77: 213-224.
- Perez-Tamayo, R.** 1972. Occurrence and significance of SLS (segment long spacing) crystallites in vivo. *Connect. Tissue Res.* 1: 55-60.
- Perez-Tamayo, R.** 1974. Morphostasis, the regulation of structure. *Bol. Estud. Med. Biol. Suppl.* 1: 145-161.

- Perlak, F., Jiricka, Z., and Masek, K.** 1976. The effect of indomethacin on carrageenan pleurisy in inbred strains of rats. *J. Pharm. Pharmacol.* 28: 921-922.
- Perlak, F., Willoughby, D.A., and Giroud, J.P.** 1977. Studies of some inflammatory and immunological responses of different strains of rat. *Biomedicine* 26: 336-343.
- Perper, R.J., Sanda, M., Chinea, G., and Oronsky, A.L.** 1974. Leukocyte chemotaxis in vivo. I. Description of a model of cell accumulation using adoptively transferred labeled cells. *J. Lab. Clin. Med.* 84: 378-393.
- Perper, R.J., Sanda, M., Chinea, G., and Oronsky, A.L.** 1974. Leukocyte chemotaxis in vivo. II. Analysis of the selective inhibition of neutrophil or mononuclear cell accumulation. *J. Lab. Clin. Med.* 84: 394-406.
- Perper, R.J., Sanda, M., Stecher, V.J., and Oronsky, A.L.** 1975. Physiologic and pharmacologic alterations of rat leukocyte chemotaxis in vivo. *Ann. N.Y. Acad. Sci.* 256: 190-209.
- Persellin, R.H., Vance, S.E., and Peery, A.** 1974. Effect of pregnancy serum on experimental inflammation. *Br. J. Exp. Pathol.* 55: 26-32.
- Persinos, G.J., Farnsworth, N.R., Blomster, R.N., and Blake, D.A.** 1974. Studies on South American plants. II. Taspine isolation and anti-inflammatory activity. *Lloydia* 37: 644. (Abstr.)
- Peterfalvi, M., Deraedt, R., Benzoni, J., Chifflet, L., and Fournex, R.** 1975. Floc-tafenine, a new nonnarcotic analgesic. *Arch. Int. Pharmacodyn. Ther.* 216: 97-112.
- Peterson, L.B., Thrall, R.S., Moore, V.L., Stevens, J.O., and Abramoff, P.** 1977. An animal model of hypersensitivity pneumonitis in the rabbit: Induction of cellular hypersensitivity to inhaled antigens using carrageenan and BCG. *Am. Rev. Respir. Dis.* 116: 1007-1012.
- Petricevic, M., Wanek, K., and Denko, C.W.** 1978. A new mechanical method for measuring rat paw edema. *Pharmacology* 16: 153-158.
- Pickmere, S.E., Parsons, M.J., and Bailey, R.W.** 1973. Composition of *Gigartina* carrageenan in relation to sporophyte and gametophyte stages of the life cycle. *Phytochemistry* 12: 2441-2444.
- Pickmere, S.E., Parsons, M.J., and Bailey, R.W.** 1975. Variations in carrageenan levels and compositions in three New Zealand species of *Gigartina*. *N.Z.J. Sci.* 18: 585-590.
- Pike, M., Barr, I.G., and Tertiaux, F.** 1978. Cocoa butter substitute. *German Patent* 2,749,163.
- Pinkas, M., Didry, N., Torck, M., Bezanger, L., and Cazin, J.C.** 1978. Phenolic components from some species of *Grindelia*. *Ann. Pharm. Fr.* 36: 97-104. (in French)
- Pittman, K.A., Golberg, L., and Coulston, F.** 1976. Carrageenan, the effect of molecular weight and polymer type on its uptake excretion and degradation in animals. *Food Cosmet. Toxicol.* 14: 85-93.
- Pittz, E.P., Golberg, L., and Coulston, F.** 1975. Interaction of degraded iota carrageenans with plasma membranes. Sedimentation of erythrocytes of different species. *Life Sci.* 17: 969-973.
- Pittz, E.P., Jones, R., Golberg, L., and Coulston, F.** 1977. Interaction of polysaccharides with plasma membranes. I. Interaction of human erythrocytes with degraded iota carrageenans and the effect of dextran and DEAE dextran. *Biorheology* 14: 21-32.
- Pittz, E.P., Jones, R., Golberg, L., and Coulston, F.** 1977. Interaction of sulfated polysaccharides with plasma membranes. II. Effect of ionic strength temperature and trypsin digestion of the erythrocyte surface on the aggregation of erythrocytes by iota carrageenans. *Biorheology* 14: 33-42.
- Podesta, M., Aubert, D., and Ferrand, J.C.** 1974. Pharmacological study of thienopyridine and furopyridine analogs. *Eur. J. Med. Chem. Chim. Ther.* 9: 487-490. (in French)

- Polanshek, A.R., and West, J.A.** 1976. The relationship of *Petrocelis middendorffii* and *Petrocelis cruenta*: An evaluation of culture and hybridization studies. *J. Phycol.* 12 (Suppl.): 25-26. (Abstr.)
- Pollack, S., and Nelson, K.** 1973. Effects of carrageenan and high serum dilution on synergistic cytotoxicity to tumor cells. *J. Immunol.* 110: 1440-1443.
- Possanza, G.J., Li, M.P., Oliver, J.T., Langlois, Y., and Birmingham, M.K.** 1973. Antiphlogistic effect of 18-hydroxydeoxycorticosterone. *Fed. Proc.* 32: 255. (Abstr.)
- Poulsen, E.** 1973. Short-term peroral toxicity of undegraded carrageenan in pigs. *Food Cosmet. Toxicol.* 11: 219-227.
- Poulsen, S.S., and Fenger, C.** 1974. Inhibitory effect of degraded carrageenan on the formation of fasting-induced avillous lesions in the guinea-pig duodenum. *Acta Pathol. Microbiol. Scand. Sect. A, Pathol.* 82: 623-626.
- Powder power in the kitchen. 1978. *FMC Progress* 4: 9-13.
- Prabhu, V.G., Rise, N.L., and Oester, Y.T.** 1972. The effect of experimental local inflammation on the action of barbiturates in rat. *Arch. Int. Pharmacodyn. Ther.* 195: 343-350.
- Prince, J.S., and Kingsbury, J.M.** 1973. The ecology of *Chondrus crispus* at Plymouth, Massachusetts. I. Ontogeny, vegetative anatomy, reproduction, and life cycle. *Am. J. Bot.* 60: 956-963.
- Prince, J.S., and Kingsbury, J.M.** 1973. The ecology of *Chondrus crispus* at Plymouth, Massachusetts. II. Field studies. *Am. J. Bot.* 60: 964-975.
- Prince, J.S., and Kingsbury, J.M.** 1973. The ecology of *Chondrus crispus* at Plymouth, Massachusetts. III. Effect of elevated temperature on growth and survival. *Biol. Bull. (Woods Hole)* 145: 580-588.
- Pringle, J.** 1976. The marine plant industry, commercially important species and resource management. In *Proceedings of the Bras d'Or Lakes Aquaculture Conference* (ed. McKay, G.) College of Cape Breton Press, Sydney, N.S. pp. 161-181.
- Pringle, J.D.** 1978. Aspects of the ecological impact of *Chondrus crispus* (Florideophyceae) harvesting in Eastern Canada. *Proc. Int. Seaweed Symp.* 9: 225-232.
- Pringle, J.D., and Semple, R.E.** 1976. A preliminary assessment of the ecological impact of an experimental *Chondrus* (Irish moss) harvester off coastal Prince Edward Island. Environment Canada, Fisheries and Marine Service, Halifax, N.S., Tech. Rep. MAR/T-76-1, 28 pp.
- Pringle, J.D., and Semple, R.E.** 1978. The incidental harvest of immature *Chondrus crispus* (Irish moss) and its possible effects on commercial yield. *Can. Fish. Mar. Serv. Tech. Rep.* 806: 1-7.
- Procaccini, R.L., Smyth, R.D., Rush, K., and Reavey-Cantwell, N.H.** 1976. Studies on the inhibition of prostaglandin synthetase by fenclorac, a new nonsteroidal anti-inflammatory agent. *Fed. Proc.* 35: 774. (Abstr.)
- Proceedings, Meeting on the Canadian Atlantic Seaweeds Industry, Charlottetown, Prince Edward Island, 1971. [1972].* Environment Canada, Fisheries Service, Industrial Development Branch, Ottawa.
- Procida, C., Bertoli, D., Mantovani, V., and Bianchini, P.** 1972. Pharmacological aspects of the anti-inflammatory activity of aminopropylon. *Riforma Med.* 86: 627-639. (in Italian)
- Pughhumphreys, R.G.P., Richardson, C.A., Wilson, A.R., and Cruickshank, W.J.** 1977. The effect of macrophage cytotoxic agent iota carrageenan on growth of two transplantable murine ascites tumors. In *Macrophage and Cancer* (ed. James, K., McBride, B., and Stuart, A.) University of Edinburgh, Department of Surgery, Edinburgh. pp. 142-154.
- Pybus, C.** 1975. *Corynophlaea crispa*, new record. *Ir. Nat. J.* 18: 153-155.
- Pybus, C.** 1975. Some notes and observations on encrusting red algae from county Galway. *Ir. Nat. J.* 18: 155-157.

- Pybus, C.** 1977. The ecology of *Chondrus crispus* and *Cigartina stellata* (Rhodophyta) in Galway Bay, Ireland. *J. Mar. Biol. Assoc. U.K.* 57: 609-628.
- Pysh, E.S.** 1977. Vacuum ultraviolet circular dichroism of polysaccharides. *Biophys. J.* 17: 296A. (Abstr.)
- Qasim, R., Zain-Ul-Abedin, and Zain, B.** [1978]. Economic importance of sea-weeds, a review. *J. Sci. (Karachi)* 4: 1-16.
- Quan, P.C., and Burtin, P.** 1978. Demonstration of nonspecific suppressor cells in the peripheral lymphocytes of cancer patients. *Cancer Res.* 38: 288-296.
- Quan, P.C., Kolb, J.P.B., and Lespinatas, G.** 1978. "B-cell" mitogenicity of carrageenan in mouse. *Cell Immunol.* 37: 1-13.
- Quatrano, R.S., and Caldwell, B.A.** 1978. Isolation of a unique marine bacterium capable of growth on a wide variety of polysaccharides from macroalgae. *Appl. Environ. Microbiol.* 36: 979-981.
- Quillet, M.** 1973. Les carragheenates, structures et stereo-chimie. In *Commes et Colloïdes Végétaux Naturels Hydrosolubles, Troisième Symposium Européen*. Société Iranex, Marseille. pp. 31-48.
- Quillet, M.** 1973. Etudes de quelques exemples de gels agueux essais d'interprétation. In *Commes et Colloïdes Végétaux aux Naturels Hydrosolubles, Troisième Symposium Européen*. Société Iranex, Marseille. pp. 161-178.
- Quillet, M.** 1976. Some recent data on the structure and conformation of natural sulphated or carboxylated polysaccharides. In *Gums and Hydrosoluble Natural Vegetal Colloids, Fourth International Symposium*. Iranex, Marseille. pp. 119-140.
- Quillet, M., and De Lestang-Bremond, G.** 1978. Action synergique à l'égard de l'eau de certaines associations de polysaccharides dans les parois des Fucales et des Gigartiniales. *Bull. Soc. Phycol. Fr.* 23: 88-91.
- Raina, M.K., and Das, P.K.** 1972. Antihistaminic activity of 4-(2,1,pyrrolidino-ethoxy) quinoline. *Indian J. Med. Res.* 60: 604-619.
- Rainsford, K.D., and Whitehouse, M.W.** 1976. Concerning the merits of copper aspirin as a potential anti-inflammatory drug. *J. Pharm. Pharmacol.* 28: 83-86.
- Rainsford, K.D., and Whitehouse, M.W.** 1976. Gastric irritancy of aspirin and its congeners: Anti-inflammatory activity without this side-effect. *J. Pharm. Pharmacol.* 28: 599-601.
- Rainsford, K.D., and Whitehouse, M.W.** 1977. Nonsteroid anti-inflammatory drugs; combined assay for anti-edemic potency and gastric ulcerogenesis in the same animal. *Life Sci.* 21: 371-379.
- Rama Rao, K.** 1977. Agar industry in India; past, present and future. In *Cultivation and Utilization of Medicinal and Aromatic Plants* (ed. Atal, C.K., and Kapur, B.M.) Regional Research Laboratory, Jamu-Tawi, India. pp. 132-134.
- Rama Rao, K., and Krishnamurthy, V.** 1978. Studies on Indian Hypnaceae. I. Seasonal variation in phycocolloid content in species of *Hypnea* (Gigartiniales, Rhodophyceae). *Bot. Mar.* 21: 257-260.
- Rama Rao, K., and Sattur, P.B.** 1976. Synthesis and mass spectral studies of 6-arylpyridazinyl hydrazones. *Indian J. Chem. Sect. B., Org. Chem. Incl. Med. Chem.* 14: 203-205.
- Raman, K., Pandey, B.R., Barthwal, J.P., and Bhargava, K.P.** 1977. Anti-inflammatory and antiproteolytic properties of substituted-4-thiazolidones. *Res. Commun. Chem. Pathol. Pharmacol.* 18: 765-768.
- Raman, K., Pandey, B.R., Barthwal, J.P., Parmar, S.S., and Bhargava, K.P.** 1977. Anti-inflammatory activity of some newer substituted S triazoles and their biochemical mode of action. *Indian J. Pharm.* 39: 155. (Abstr.)
- Raman, K., Parmar, S.S., Kumar, S., and Brumleve, S.J.** 1978. Anti-inflammatory and antiproteolytic properties of 2-[acyl-N-(substituted benzylidene) hydrazino] 5-phenyltetrazoles. *Pharmacology (Basel)* 17: 56-60.

- Ramirez Ramos, A.** 1976. Modern views on etiology and medical treatment of peptic ulcer. *Rev. Viernes Med.* 27: 43-53. (in Spanish)
- Ramus, J.** 1977. Alcian blue: A quantitative aqueous assay for algal acid and sulfated polysaccharides. *J. Phycol.* 13: 345-348.
- Ramus, J., Beale, S.I., and Mauzerall, D.** 1976. Correlation of changes in pigment content with photosynthetic capacity of seaweeds as a function of water depth. *Mar. Biol.* 37: 231-238.
- Ramus, J., Beale , S.I., Mauzerall, D., and Howard, K.L.** 1976. Changes in photosynthetic pigment concentration in seaweeds as a function of water depth. *Mar. Biol.* 37: 223-229.
- Randall, L.O., and Baruth, H.** 1976. Analgesic and anti-inflammatory activity of 6-chloro-alpha-methyl-carbazole-2-acetic acid (C-5720). *Arch. Int. Pharmacodyn. Ther.* 220: 94-114.
- Rao, K.R.** see Rama Rao, K.
- Rapp, H.** 1973. Egg substitute. *French Patent* 2,156,659.
- Rapp, H.** 1973. Synthetic fruit for pastry. *French Patent* 2,157,818.
- Rapp, H.** 1973. Synthetic fruit particles for jellied foods. *French Patent* 2,157,819.
- Rasmussen, J.** 1974. Gel texture in foods, its relation to choice of gelling agent, formulas, and processing conditions. *Dechema Monogr.* 77: 187-196.
- Raulino-Filho, M., and Garcia Leme, J.** 1977. Participation of sensory nervous structures in the development of inflammatory reactions. *Br. J. Exp. Pathol.* 58: 124-129.
- Ray, P.K., Gewurz, H., and Simmons, R.L.** 1972. The serologic behavior of neuraminidase-treated lymphoid cells: Alloantigenicity and complement sensitivity. *Clin. Exp. Immunol.* 11:411-460.
- Rees, D.A.** 1977. *Polysaccharide Shapes*. Chapman and Hall, London.
- Reid, D.S.** 1975. Thermal transitions relating to gelling processes. *Pestic. Sci.* 6: 327-334.
- Reid, D.S.** 1978. The interaction of ions with gelling polysaccharides. *Colston Pap.* 29: 82-93.
- Reid, D.S., Bryce, T.A., Clark, A.H., and Rees, D.A.** 1974. Helix-coil transition in gelling polysaccharides. *Faraday Discuss. Chem. Soc.* 57: 230-237.
- Reid, D.S., and Tibbs, D.J.** 1972. Sol-gel transition in polysaccharide gels. *Therm. Anal., Prod. Int. Conf.* 3: 423-430.
- Reisner, D.B., Ludwig, B.J., Simon, E., Dejneka, T., and Sofia, R.D.** 1977. 2, 3-Dihydro-9H-isoxazolo[3,2-b]-quinazolin-9-ones and 3,4-dihydro-(1,2)-oxazino[3,2-b]-quinazolin-10(2H)-ones. *Arzneim. Forsch.* 27: 766-770.
- Reisner, D.B., Ludwig, B.J., Stiefel, F.J., Gister, S., Meyer, M., Powell, L.S., and Sofia, R.D.** 1977. Synthesis and anti-inflammatory activity of 3,3a-dihydro-2H,9H-isoxazolo[3,2-b][1,3]benzoxazin-9-ones and related compounds. *Arzneim. Forsch.* 27: 760-766.
- Rhee, C., and Briggs, W.R.** 1977. Some responses of *Chondrus crispus* to light. I. Pigmentation changes in the natural habitat. *Bot. Gaz.* 138: 123-128.
- Rhee, M., Pittz, E.P., Abraham, R., Rourke, D., and Coulston, F.** 1978. Interaction of carrageenan with some dietary nutrients in relation to their absorption from the gastrointestinal tract of rats. *Toxicol. Appl. Pharmacol.* 45: 260-261. (Abstr.)
- Richardson, T.W.** 1977. Fatty food extender. *Japanese Patent* (unexamined) 77 108036.
- Richer, S.M., and McCandless, E.L.** 1972. Demonstration of intracellular carrageenin by a fluorescent antibody technique in granuloma tissue. *J. Histochem. Cytochem.* 20: 991-994.
- Ricohermoso, M.A., and Deveau, L.E.** 1978. Review of commercial propagation of *Eucheuma* (Florideophyceae) clones in the Philippines. *Proc. Int. Seaweed Symp.* 9: 525-531.

- Riedel, R., and Schoetensack, W.** 1973. Pharmacology of butylmalonic acid mono (1,2-diphenylhydrazide) calcium (bumadizone calcium). *Arzneim. Forsch.* 23: 1215-1225. (in German)
- Rigney, J.A. (editor).** [1972]. *Proceedings of the Conference on the Marine Sciences, held under auspices of Atlantic Section, Chemical Institute of Canada, in University of Prince Edward Island, Charlottetown, 1970.* U.P.E.I., Charlottetown.
- Rigney, J.A.** 1973. Chemical investigations of *Chondrus crispus*, progress report, 1971. Environment Canada, Fisheries and Marine Service, Industrial Development Branch, Ottawa, Tech. Rep. 66: 87 pp.
- Rigney, J.A.** 1977. A facility for the development of seaweed resources on Prince Edward Island [a proposal] for the P.E.I. Marine Plants Cooperative, Anglo, P.E.I., 34 pp.
- Ring, P.D., and Vadas, R.L.** 1972. Morphological development of *Chondrus crispus* and *Cigartina stellata* in culture. *J. Phycol.* 8: 11. (Abstr.)
- Rios, A., and Simmons, R.L.** 1972. Poly (2-vinyl pyridine N-oxide) reverses the immunosuppressive effects of silica and carrageenan. *Transplantation* 13: 343-345.
- Robak, J.** 1978. Adjuvant-induced and carrageenan-induced inflammation and lipid peroxidation in rat liver, spleen and lungs. *Biochem. Pharmacol.* 27: 531-534.
- Robert, A.M., Miskulin, M., and Godeau, G.** 1974. Biochemical pharmacology of connective tissues. II. Evolution of enzymatic activities in carrageenan granulomas. Influence of lipidic plant extracts. *Rhumatologie (Paris)* 4: 595-599.
- Robert, A.M., Miskulin, M., and Godeau, G.** 1974. Pharmacological biochemistry of connective tissues. I. Influence of lipidic plant extracts on the evolution of the carrageenan induced granuloma. *Rhumatologie (Paris)* 4: 355-361.
- Roch-Arveiller, M., Dunn, C.J., Giroud, J.P., Strzalko, S., and Muntaner, O.** 1977. Comparison of the inflammatory activity of kappa and lambda carragennan. *J. Pharmacol.* 8: 461-476. (in French)
- Rokosova, B., and Chvapil, M.** 1974. Relationship between the dose of ascorbic acid and its structural analogs and proline hydroxylation in various biological systems. *Connect. Tissue Res.* 2: 215-221.
- Rooks, W.H., and Tomolonis, A.J.** 1974. Prostaglandins and the phlogistic response. *Fed. Proc.* 33: 589. (Abstr.)
- Rooks, W.H., Tomolonis, A.J., Roszkowski, A.P., and Wallach, M.B.** 1978. The anti-inflammatory and analgesic profile of 6,11-dihydro-dibenzo-[b.e.]thiepin-11-one-3-acetic acid (DBTA). *Fed. Proc.* 37: 662. (Abstr.)
- Rosenau, J.R., Calzada, J.F., and Peleg, M.** 1978. Some rheological properties of a cheese-like product prepared by direct acidification. *J. Food Sci.* 43: 948-950, 953.
- Rouse, A.H., and Moore, E.L.** 1972. All-purpose gel blend for preparing citrus gels. *Proc. Fla. State Hortic. Soc.* 85: 229-232.
- Rovnyak, G., Diassi, P.A., Levine, S.D., and Sheehan, J.T.** 1973. Synthesis and anti-inflammatory activities of (alpha-cyclopropyl-p-tolyl) acetic acid and related compounds. *J. Med. Chem.* 16: 487-490.
- Rueness, J.** 1978. A note on development and reproduction in *Gigartina stellata* (Rhodophyceae, Gigartinales) from Norway. *Br. Phycol. J.* 13: 87-90.
- Ruggieri, G.D.** 1976. Drugs from the sea. Marine organisms with novel chemical constituents are excellent sources of new drugs. *Science* 194: 491-497.
- Rumjanek, V.M., and Brent, L.** 1978. Immunosuppressive activity of carrageenan for cell-mediated responses in the mouse. *Transplantation* 26: 113-118.
- Rumjanek, V.M., Watson, S.R., and Sljivic, V.S.** 1977. A reevaluation of the role of macrophages in carrageenan-induced immunosuppression. *Immunology* 33: 423-432.

- Ryther, J.H. 1974. The use of flowing biological systems in aquaculture, sewage treatment, pollution assay and food-chain studies. U.S. NTIS, PB-241529, 368 pp.
- Ryther, J.H. 1976. Marine polyculture based on natural food chains and recycled wastes. U.S. NTIS, PB-261939, 272 pp.
- Ryther, J.H., De Boer, J.A., and Lapointe, B.E. 1978. Cultivation of seaweeds for hydrocolloids, waste treatment and biomass for energy conversion. Proc. Int. Seaweed Symp. 9: 1-16.
- Ryther, J.H., Goldman, J.C., Gifford, C.E., Huguenin, J.E., Wing, A.S., Clarner, J.P., Williams, L.D., and Lapointe, B.E. 1975. Physical models of integrated waste recycling-marine polyculture systems. Aquaculture 5: 163-178.
- Saeki, K. 1972. Anti-inflammatory properties of sulfated polysaccharides and activation of the plasma kinin-forming systems. Arch. Int. Pharmacodyn. Ther. 195: 33-51.
- Saeki, K., Endo, K., Tasaka, K., and Yamasaki, H. 1974. Anti-inflammatory polysaccharide produced by *Serratia piscatorum*. Jpn. J. Pharmacol. 24: 109-118.
- Saeki, K., Muraoka, S., and Yamasaki, H. 1972. Anti-inflammatory properties of N-phenylanthranilic acid derivatives in relation to uncoupling of oxidative phosphorylation. Jpn. J. Pharmacol. 22: 187-199.
- Saeki, K., and Wake, K. 1974. Function of histamine as a modulator of inflammatory reaction. Jpn. J. Pharmacol. 24 (Suppl.): 139. (Abstr.)
- Sabil, F.G. 1974. Factitious diarrhea. Can. Med. Assoc. J. 111: 1108-1109.
- Saito, M., Miyoshi, M., Tanizawa, Y., Ikeda, Y., and Fukuda, S. 1978. Granular glue compositions. Japanese Patent (unexamined) 78 65489.
- Salter, R.B., and Prior, D.F. 1972. Experimental investigation of the local effects of phenylbutazone, gold thiomalate, and radioactive colloidal gold administered intraarticularly to rabbits. In *Immune Reactions and Experimental Models in Rheumatic Diseases* (ed. Gordon, D.A.) University of Toronto Press, Toronto, pp. 165-173.
- Sancilio, L.F., and Fishman, A. 1973. Application of sequential analysis to Evans Blue carrageenan-induced pleural effusion for screening compounds for anti-inflammatory activity. Toxicol. Appl. Pharmacol. 26: 575-584.
- Sancilio, L.F., Reese, D.L., Cheung, S., and Alphin, R.S. 1977. AHR-5850. A potent anti-inflammatory compound. Agents Actions 7: 133-144.
- Sanda, M., Perper, R.J., Chinea, G., and Stecher, V.J. 1975. Effect of BCG on the extravascular accumulation and circulatory pattern of chromium-51 labeled peritoneal exudate mononuclear cells. Fed. Proc. 34: 759. (Abstr.)
- Sandrini, M., and Zanolli, P. 1977. Analgesic, hypothermic and antiphlogistic effects of Na salicylate and acetylsalicylate intracerebrally injected in mice. Riv. Farmacol. Ter. 8: 33-48.
- Santilli, J., Thong, Y.H., and Gillette, S. 1973. Role of macrophage processing in homocytotropic antibody production in the rabbit. Fed. Proc. 32: 999. (Abstr.)
- Santos, G.A., and Doty, M.S. 1975. IR studies on carrageenan of *Ahnfeltia concinna*, a marine red algae. J. Pharm. Sci. 64: 1704-1706.
- Santos, G.A., and Doty, M.S. 1978. Carrageenans from some Hawaiian red algae. Proc. Int. Seaweed Symp. 9: 361-367.
- Sasaki, A. 1972. Anti-inflammatory effect of thiamine and related substances. Showa Igakkai Zasshi 32: 533-542. (in Japanese)
- Sasaki, S., Shinkai, H., Akashi, Y., and Kishihara, Y. 1972. Studies on the mechanism of action of asiaticoside (Madecassol) on experimental granulation tissue and cultured fibroblasts and its clinical application in systemic scleroderma. Acta Derm-Venereol. 52: 141-150.
- Sasso, R.A., Kowblansky, A., and Ander, P. 1976. Cation interactions with polyelectrolytes by self-diffusion measurements. Colloid Interface Sci. (Proc. Int. Conf.) 5: 299-303.

- Sato, M., Ishizuka, Y., Shiga, A., Seki, K., Tanizawa, H., Fukuda, T., and Yuizono, T.** 1977. Pharmacological studies of 4-ethoxy-2-methyl-5-morpholino-3-2H-pyridazinone, M-73101. II. *Jpn. J. Pharmacol.* 27 (Suppl.): 65P (Abstr.)
- Sawayama, S., Kawabata, A., Okabe, M., and Sugi, J.** 1978. Viscosities of carrageenan aqueous solution and physical properties of carrageenan-water gels. *Nippon Nogei Kagaku Kaishi* 52: 409-415. (in Japanese)
- Sawhney, S.N., Arora, S.K., and Singh, S.P.** 1978. Synthesis and anti-inflammatory activity of some 6-alkyl-imidazo or aryl-imidazo [2,1-b]thiazole-3-acetic acids. *Indian J. Chem. Sect. B, Org. Chem. Incl. Med. Chem.* 16: 523-524.
- Sawhney, S.N., Arora, S.K., and Singh, S.P.** 1978. Thiazole derivatives. III. Synthesis and anti-inflammatory activity of some N-(4-substituted-2-thiazolyl)-para-(2-substituted-4-thiazolyl) anilines. *Indian J. Chem. Sect. B, Org. Chem. Incl. Med. Chem.* 16: 521-523.
- Sawhney, S.N., and Bansal, O.P.** 1977. Benzothiazole derivatives. VIII. Synthesis of some 2-(4-alkyl or aryl-2-thiazolyl) benzothiazoles and 12-(4-alkyl or aryl-2-thiazolylamino)-benzothiazoles as potential anti-inflammatory agents. *Indian J. Chem. Sect. B, Org. Chem. Incl. Med. Chem.* 15: 121-124.
- Sawhney, S.N., Singh, S.P., and Arora, S.K.** 1977. Thiazole derivatives. II. Synthesis of some 2,4'- and 4,4'-bi-thiazolyl derivatives as potential anti-inflammatory agents. *Indian J. Chem. Sect. B, Org. Chem. Incl. Med. Chem.* 15: 727-730.
- Sawhney, S.N., Singh, S.P., and Bansal, O.P.** 1977. Benzothiazole derivatives. IX. Synthesis, anti-inflammatory activity and mass spectra of some 3-(2-benzothiazolyl)-5-pyrazolones. *Indian J. Chem. Sect. B, Org. Chem. Incl. Med. Chem.* 15: 125-127.
- Sawicki, J.E., and Catanzaro, P.J.** 1975. Selective macrophage cytotoxicity of carrageenan in vivo. *Int. Arch. Allergy Appl. Immunol.* 49: 709-714.
- Scarratt, D.J.** 1972. Investigations into the effects on lobsters of raking Irish moss, 1970-71. *Fish. Res. Board Can. Tech. Rep.* 329: 1-20.
- Scarratt, D.J.** 1973. Claw loss and other wounds in commercially caught lobsters, *Homarus americanus*. *J. Fish Res. Board Can.* 30: 1370-1373.
- Scarratt, D.J.** 1973. The effects of raking Irish moss (*Chondrus crispus*) on lobsters in Prince Edward Island. *Helgol. Wiss. Meeresunters.* 24: 415-424.
- Scarratt, D.J.** 1975. Observations on lobsters and scallops near Pictou, Nova Scotia. *Can. Fish. Mar. Serv. Tech. Rep.* 532: 1-15.
- Scarratt, D.J., and Polar, S.M.** 1972. An odometer for use with Irish moss rakes. *Fish. Res. Board Can. Tech. Rep.* 362: 1-7.
- Schellander, F., and Marks, R.** 1973. The epidermal response to subepidermal inflammation, an experimental study. *Br. J. Dermatol.* 88: 363-367.
- Scherer, R., and Ruhstroth-Bauer, G.** 1978. Inhibition of the carrageenan induced inflammatory rat paw edema by systemic application of rat fibrinogen and fibrino peptides. *Blut* 36: 327-330. (in German)
- Schmidt, K.L., and Ott, V.R.** 1977. Warmth and inflammation, the effect of physical hyperthermia on kaolin and carrageenan edema of the rat. *Z. Physiother.* 29: 235-238. (in German)
- Schmitt, E.E.** 1974. Fibrillar soy whey protein complex. U.S. Patent 3,792,175.
- Schmitt, M.** 1973. Marine algae composition and commercial bath products containing them. *Maroc Med.* 53: 233-238. (in French)
- Schmolck, W., and Mergenthaler, E.** 1973. Analysis of polysaccharides used as food additives. II. Gas-chromatographic identification after methanolysis and trimethylsilylation. *Z. Lebensm. Unters. Forsch.* 152: 263-273. (in German)
- Schneider, C.W., and Searles, R.B.** 1973. North Carolina marine algae. II. New records and observations of the benthic offshore flora. *Phycologia* 12: 201-211.

- Schorlemmer, H.U., Bitter-Suermann, D., and Allison, A.C.** 1977. Complement activation by the alternative path and macrophage enzyme secretion in the pathogenesis of chronic inflammation. *Immunology* 32: 929-940.
- Schwan, T.J., Goldenberg, M.M., and Ilse, A.C.** 1978. Synthesis of an anti-inflammatory 10,10a-dihydro-1H,5H-imidazo[1,5-*b*]isoquinoline-1,3(2H)-dione. *J. Pharm. Sci.* 67: 718-719.
- Schwan, T.J., Goldenberg, M.M., and Miles, N.J.** 1978. Anti-inflammatory 1-substituted 2-imidazolidinones. *J. Pharm. Sci.* 67: 548-549.
- Schwartz, H.J., and Catanzaro, P.J.** 1973. The differential suppression of antigen, lymphokine and mitogen-induced delayed hypersensitivity-type skin reactions by carrageenan. *Int. Arch. Allergy Appl. Immunol.* 44: 409-421.
- Schweiger, R.G.** 1972. Polysaccharide sulfates. I. Cellulose sulfate with a high degree of substitution. *Carbohydr. Res.* 21: 219-228.
- Schweiger, R.G. (editor)**. 1978. Carbohydrate sulfates. ACS Symp. Ser. 77: 1-294.
- Schweiger, R.G., and Andrew, T.R.** 1972. Polysaccharide sulfates. II. Sulfuric acid esters of glycuronans having various degrees of substitution. *Carbohydr. Res.* 21: 275-281.
- Seaweed farming could be profitable. 1975. *BioScience* 25: 134.
- Semesi, A.K., and Mshigeni, K.E.** 1977. Contributions on the content and nature of the phycocolloid from *Halymenia venusta* Boergesen (Rhodophyta: Cryptonemiales). *Bot. Mar.* 20: 233-237.
- Semesi, A.K., and Mshigeni, K.E.** 1977. Studies on the content and nature of the phycocolloid from *Corynomorpha prismatica* (Rhodophyta: Cryptonemiales). *Mar. Biol.* 42: 165-170.
- Semesi, A.K., and Mshigeni, K.E.** 1977. Studies on the yield and infrared spectra of phycocolloids from *Chondrococcus hornemannii* (Lyngbye) Schmitz and *Sarcocolla filiforme* (Sonder) Kylin from Tanzania. *Bot. Mar.* 20: 271-275.
- Serradell, M.N., and Blancafort, P.** 1978. Cloximate hydrochloride. *Drugs Future* 3: 187-188.
- Serradell, M.N., and De Angelis, L.** 1977. Diphenpyramide. *Drugs Future* 2: 793-796.
- Seshadri, R., and Sieburth, J.M.** 1975. Seaweeds as a reservoir of *Candida* yeasts in in-shore waters. *Mar. Biol.* 30: 105-118.
- Sethi, P.D.** 1974. L-tryptophan and inflammation. *Indian J. Physiol. Pharmacol.* 18: 355-357.
- Shacklock, P.F., Robson, D., Forsyth, I., and Neish, A.C.** 1973. Further experiments (1972) on the vegetative propagation of *Chondrus crispus* T4. National Research Council of Canada, Atlantic Regional Laboratory, Halifax, N.S., Tech. Rep. 18: 44 pp.
- Shacklock, P.F., Robson, D., and Simpson, F.J.** 1974. The propagation of Irish moss in tanks. Comparative growth at different locations, 1973. National Research Council of Canada, Atlantic Regional Laboratory, Halifax, N.S., Tech. Rep. 19: 16 pp.
- Shacklock, P.F., Robson, D.R., and Simpson, F.J.** 1975. The propagation of Irish moss in tanks. Comparative growth at different locations, 1974. National Research Council of Canada, Atlantic Regional Laboratory, Halifax, N.S., Tech. Rep. 20: 17 pp.
- Shacklock, P.F., Robson, D.R., and Simpson, F.J.** 1975. Vegetative propagation of *Chondrus crispus* (Irish moss) in tanks. National Research Council of Canada, Atlantic Regional Laboratory, Halifax, N.S., Tech. Rep. 21: 27 pp.
- Sharma, S.C., Mukhtar, H., Sharma, S.K., and Krishna Murt, C.R.** 1972. Lipid peroxide formation in experimental inflammation. *Biochem. Pharmacol.* 21: 1210-1214.
- Shehata, T.E., and Collins, E.B.** 1972. Sporulation and heat resistance of psychrophilic strains of *Bacillus*. *J. Dairy Sci.* 55: 1405-1409.