

## REFERENCES

- Aboulafia, A.J., Littleton, K., Shmookler, B. & Malawer, M.M. (1994) Malignant fibrous histiocytoma at the site of hip replacement in association with chronic infection. *Orthop. Rev.*, **23**, 427–432
- AEPI (1995) *Health and Environmental Consequences of Depleted Uranium Use in the US Army: Technical Report*, Atlanta, GA, United States Army Environmental Policy Institute
- Agency for Toxic Substances and Disease Registry (1988) *Toxicological Profile for Lead*, Atlanta, GA, United States Department of Health and Human Services
- Agency for Toxic Substances and Disease Registry (1998) *Toxicological Profile for Uranium*, Atlanta, GA, United States Department of Health and Human Services
- Agins, H.J., Alcock, N.W., Bansal, M., Salvati, E.A., Wilson, P.D., Pellicci, P.M. & Bullough, P.G. (1988) Metallic wear in failed titanium-alloy total hip replacements. *J. Bone Joint Surg.*, **70A**, 347–356
- Alban, L.E. (1981) Metal surface treatments (case hardening). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 313–324
- Al-Dawood, A. & Wennberg, A. (1993) Biocompatibility of dentin bonding agents. *Endod. dent. Traumatol.*, **9**, 1–7
- Amin, P., Wille, J., Shah, K. & Kydonieus, A. (1993) Analysis of the extractive and hydrolytic behaviour of microthane poly(ester-urethane) foam by high pressure liquid chromatography. *J. biomed. Mater. Res.*, **27**, 655–666
- Andreopoulos, A.G. & Evangelatou, M. (1994) Evaluation of various reinforcements for maxillofacial silicone elastomers. *J. Biomater. Appl.*, **8**, 344–360
- Angervall, L., Kindblom, L.-G. & Merck, C. (1977) Myxofibrosarcoma. A study of 30 cases. *Acta pathol. microbiol. scand., Sect. A*, **85**, 127–140
- Anon. (1992) Summary of the report on silicone-gel-filled breast implants. *Can. med. Assoc. J.*, **147**, 1127
- Anttila, S., Luostarinens, L., Hirvonen, A., Elovaara, E., Karjalainen, A., Nurminen, T., Hayes, J.D., Vainio, H. & Ketterer, B. (1995) Pulmonary expression of glutathione S-transferase M3 in lung cancer patients: association with GSTM1 polymorphism, smoking, and asbestos exposure. *Cancer Res.*, **55**, 3305–3309
- Anusavice, K.J. (1996) *Phillips' Science of Dental Materials*, 10th Ed., Philadelphia, W.B. Saunders
- Arden, G.P. & Bywaters, E.G.L. (1978) Tissue reaction. In: Arden, G.P. & Ansell, B.M., eds, *Surgical Management of Juvenile Chronic Polyarthritis*, London, Academic Press, pp. 257–275

- Argani, P., Ghossein, R. & Rosai, J. (1998) Anthracotic and anthracosilicotic spindle cell pseudotumors of mediastinal lymph nodes: report of five cases of a reactive lesion that simulates malignancy. *Hum. Pathol.*, **29**, 851–855
- Aronoff, M.S. (1995) Market study: biomaterials supply for permanent medical implants. *J. biomater. Appl.*, **9**, 205–261
- Ashammakhi, N. & Rokkanen, P. (1997) Absorbable polyglycolide devices in trauma and bone surgery. *Biomaterials*, **18**, 3–9
- Assad, M., Yahia, L.H., Rivard, C.H. & Lemieux, N. (1998) *In vitro* biocompatibility assessment of a nickel–titanium alloy using electron microscopy in situ end-labeling (EM-ISEL). *J. biomed. Mater. Res.*, **41**, 154–161
- ASTM (1998) F 748 Standard practice for selecting generic biological test methods for materials and devices. In: *ASTM Annual Book of Standards*, Vol. 13.01, Medical devices and services, Philadelphia, American Society for Testing and Materials, pp. 193–197
- Athanasiou, K.A., Niederauer, G.G., Agrawal, C.M. & Landsman, A.S. (1995) Applications of biodegradable lactides and glycolides in podiatry. *Clin. podiat. Med. Surg.*, **12**, 475–495
- Atkinson, A. & Roy, D. (1995) *In vivo* DNA adduct formation by bisphenol A. *Environ. mol. Mutagen.*, **26**, 60–66
- Autian, J., Singh, A.R., Turner, J.E., Hung, G.W., Nunez, L.J. & Lawrence, W.H. (1975) Carcinogenesis from polyurethanes. *Cancer Res.*, **35**, 1591–1596
- Autian, J., Singh, A.R., Turner, J.E., Hung, G.W., Nunez, L.J. & Lawrence, W.H. (1976) Carcinogenic activity of a chlorinated polyether polyurethane. *Cancer Res.*, **36**, 3973–3977
- Bagó-Granell, J., Aguirre-Canyadell, M., Nardi, J. & Tallada, N. (1984) Malignant fibrous histiocytoma of bone at the site of a total hip arthroplasty. A case report. *J. Bone Joint Surg.*, **66B**, 38–40
- Baker, S., Brooks, S.C. & Walker, D.M. (1988) The release of residual monomeric methyl methacrylate from acrylic appliances in the human mouth: an assay for monomer in saliva. *J. dent. Res.*, **67**, 1295–1299
- Banks, W.C., Morris, E., Herron, M.R. & Green, R.W. (1975) Osteogenic sarcoma associated with internal fracture fixation in two dogs. *J. Am. vet. med. Assoc.*, **167**, 166–167
- Bardos, D.I. (1979) High strength Co-Cr-Mo alloy by hot isostatic pressing of powder. *Biomater. Med. Devices artif. Organs*, **7**, 73–80
- Barnett F (1992) Pulpal response to restorative procedures and materials. *Curr. Opin. Dent.*, **2**, 93–98
- Barry, M., Thomas, S.M., Rees, A., Shafiqian, B & Mowbray, M.A. (1995) Histological changes associated with an artificial anterior cruciate ligament. *J. clin. Pathol.*, **48**, 556–559
- Bartels, M.J., Timchalk, C. & Smith, F.A. (1993) Gas chromatographic/tandem mass spectrometric identification and quantification of metabolic 4-acetyltoluene-2,4-diamine from the F344 rat. *Biol. mass Spectrom.*, **22**, 194–200
- Bates, B.R. & Klein, M. (1966) Importance of a smooth surface in carcinogenesis by plastic film. *J. natl Cancer Inst.*, **37**, 145–151
- Bauer, K. & Frey, R. (1955) *Geschwulst und Trauma. Handbuch der gesamten Unfallheilkunde*, Stuttgart, S. Hirzel Verlag

- Bayne, S.C. (1992) Dental composites/glass ionomers: clinical reports. *Adv. dent. Res.*, **6**, 65–77
- Bechtol, C.O., Ferguson, A.B., Jr & Laing, P.G. (1959) *Metals and Engineering in Bone and Joint Surgery*, Baltimore, Williams & Wilkins
- Beck, G., Beyer, H.-H., Gerhardt, W., Hanßelt, J. & Zimmer, U. (1995) *Edelmetall-Taschenbuch*, Heidelberg, Hüthing-Verlag, pp. 58–59
- Beekman, W.H., Feitz, R., van Diest, P.J. & Hage, J.J. (1997) Migration of silicone through the fibrous capsules of mammary prostheses. *Ann. plast. Surg.*, **38**, 441–445
- Behling, C.A. & Spector, M. (1986) Quantitative characterization of cells at the interface of long-term implants of selected polymers. *J. biomed. Mater. Res.*, **20**, 653–666
- Bell, R.S., Hopyan, S., Davis, A.M., Kandel, R. & Gross, A.E. (1997) Sarcoma of bone–cement membrane: a case report and review of the literature. *Can. J. Surg.*, **40**, 51–55
- Bellón, J.M., Contreras, L.A., Buján, J., Palomares, D. & Carrera-San Martín, A. (1998) Tissue response to polypropylene meshes used in the repair of abdominal wall defects. *Biomaterials*, **19**, 669–675
- Ben-Izhak, O., Kerner, H., Brenner, B. & Lichtig, C. (1992) Angiosarcoma of the colon developing in a capsule of a foreign body. Report of a case with associated hemorrhagic diathesis. *Am. J. clin. Pathol.*, **97**, 416–420
- Bennett, D., Campbell, J.R. & Brown, P. (1979) Osteosarcoma associated with healed fractures. *J. small Anim. Pract.*, **20**, 13–18
- Benoit, F.M. (1993) Degradation of polyurethane foams used in the Même breast implant. *J. biomed. Mater. Res.*, **27**, 1341–1348
- Bering, E.A., Jr & Handler, A.H. (1957) The production of tumors in hamsters by implantation of polyethylene film. *Cancer*, **10**, 414–415
- Bering, E.A. Jr, McLaurin, R.L., Lloyd, J.B. & Ingraham, F.D. (1955) The production of tumors in rats by the implantation of pure polyethylene. *Cancer Res.*, **15**, 300–301
- Berkel, H., Birdsall, D.C. & Jenkins, H. (1992) Breast augmentation: a risk factor for breast cancer? *New Engl. J. Med.*, **326**, 1649–1653
- Bernstein, K.E. & Lattes, R. (1982) Nodular (pseudosarcomatous) fasciitis, a nonrecurrent lesion: clinicopathologic study of 134 cases. *Cancer*, **49**, 1668–1678
- Berry, J.P., Galle, P., Poupon, M.F., Pot-Deprun, J., Chouroulinkov, I., Judd, J.G. & Dewally, D. (1984) Electron microprobe in vitro study of interaction of carcinogenic nickel compounds with tumour cells. In: Sunderman, F.W., Jr, ed., *Nickel in the Human Environment* (IARC Scientific Publications No. 53), Lyon, IARC, pp. 153–164
- Bérubé, K.A., Quinlan, T.R., Moulton, G., Hemenway, D., O'Shaughnessy, P., Vacek, P. & Mossman, B.T. (1996) Comparative proliferative and histopathologic changes in rat lungs after inhalation of chrysotile and crocidolite asbestos. *Toxicol. appl. Pharmacol.*, **137**, 67–74
- Bhandarkar, D.S., Bewu, A.D.M. & Taylor, T.V. (1993) Carcinoma of the breast at the site of migrated pacemaker generators. *Postgrad. med. J.*, **69**, 883–885
- Bigatti, M.P., Lamberti, L., Cannas, M. & Rossi, E. (1989) Lack of sister-chromatid exchange induction by polymethyl methacrylate bone cement in human lymphocytes cultured in vitro. *Mutat. Res.*, **227**, 21–24

- Bigatti, M.P., Lamberti, L., Rizzi, F.P., Cannas, M. & Allasia, G. (1994) In vitro micronucleus induction by polymethyl methacrylate bone cement in cultured human lymphocytes. *Mutat. Res.*, **321**, 133–137
- Billmeyer, F.W. (1989) Polymers. In: Grayson, M., Mark, H.F., Othmer, D.F. & Othmer, D.F. eds, *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, p. 934
- Bingham, H.G., Copeland, E.M., Hackett, R.R. & Caffee, H.H. (1988) Breast cancer in a patient with silicone breast implants after 13 years. *Ann. plast. Surg.*, **20**, 236–237
- Biran, S., Keren, A., Farkas, T. & Stern, S. (1979) Development of carcinoma of the breast at the site of an implanted pacemaker in two patients. *J. surg. Oncol.*, **11**, 7–11
- Birdsell, D.C., Jenkins, H. & Berkel, H. (1993) Breast cancer diagnosis and survival in women with and without breast implants. *Plast. Reconstr. Surg.*, **92**, 795–800
- Birmmeyer, G. (1963) The fate of metallic foreign bodies in the frontal sinus. *Laryng.-Rhinol.-Otol.*, **42**, 778–785 (in German)
- Bischoff, F. & Bryson, G. (1964) Carcinogenesis through solid state surfaces. *Progr. Exp. Tumor Res.*, **5**, 85–133
- Bischoff, F. & Bryson, G. (1977) Intraperitoneal foreign body reaction in rodents. *Res. Commun. chem. Pathol. Pharmacol.*, **18**, 201–214
- Björk, V.O. (1985) The development of artificial heart valves: introduction and historical perspective. In: Morse, D., Steiner, R.M. & Fernandez, J., eds, *Guide to Prosthetic Cardiac Valves*, New York, Springer-Verlag, pp. 1–4
- Black, J. (1992) Implant materials: properties. In: Black, J., ed., *Biological Performance of Materials, Fundamentals of Biocompatibility*, New York, Marcel Dekker, pp. 110–122
- Black, J. (1994) Biological performance of tantalum. *Clin. Mater.*, **16**, 167–173
- Blackwell, G. & Käse, R. (1996) Technical characteristics of light curing glass-ionomers and compomers. *Dent. Mat.*, **12**, 77–88
- Blake, J.M. (1943) Primary carcinoma of the bronchus associated with foreign body. *Am. Rev. Tuberc.*, **47**, 109–111
- Blakely, H.W. (1952) Shrapnel, semantics and such. *Combat Forces J.*, **March**
- Bleiweiss, I.J. & Copeland, M. (1995) Capsular synovial metaplasia and breast implants. *Arch. Pathol. Lab. Med.*, **119**, 115–116
- Blümlein, H. (1957) Malignant tumours after gunshot injury. *Arch. Ohren.-Nasen.-Kehlk. Heilk.*, **171**, 239–244 (in German)
- Bolewska, J., Hansen, H.J., Holmstrup, P., Pindborg, J.J. & Stangerup, M. (1990a) Oral mucosal lesions related to silver amalgam restorations. *Oral Surg. Oral Med. Oral Pathol.*, **70**, 55–58
- Bolewska, J., Holmstrup, P., Møller-Madsen, B., Kenrad, B., & Danscher, G. (1990b) Amalgam associated mercury accumulations in normal oral mucosa, oral mucosal lesions of lichen planus and contact lesions associated with amalgam. *J. Oral Pathol. Med.*, **19**, 39–42
- Bonin, A.M., Arlauskas, A.P., Angus, D.S., Baker, R.S.U., Gallagher, C.H., Greenoak, G., Lane Brown, M.M., Meher-Homji, K.M. & Reeve, V. (1982) UV-absorbing and other sun-protecting substances: genotoxicity of 2-ethylhexyl *p*-methoxycinnamate. *Mutat. Res.*, **105**, 303–308

- Boone, C.W., Takeichi, N., Eaton, S.D.A. & Paranjpe, M. (1979) 'Spontaneous' neoplastic transformation *in vitro*: a form of foreign body (smooth surface) tumorigenesis. *Science*, **204**, 177–179
- Borg, E.L. (1979) Ethylene-propylene. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 8, 3rd Ed., New York, John Wiley, pp. 492–500
- Borgmeijer, P.J., Kreulen, C.M., van Amerongen, W.E., Akerboom, H.B.M. & Gruythuysen, R.J.M. (1991) The prevalence of postoperative sensitivity in teeth restored with Class II composite resin restorations. *J. Dent. Child.*, **58**, 378–383
- Bouchard, P.R., Black, J., Albrecht, B.A., Kaderly, R.E., Galante, J.O. & Pauli, B.U. (1996) Carcinogenicity of CoCrMo (F-75) implants in the rat. *J. biomed. Mater. Res.*, **32**, 37–44
- Bouillaguet, S., Virgillito, M., Wataha, J., Ciucchi, B. & Holz, J. (1998) The influence of dentine permeability on cytotoxicity of four dentine bonding systems, *in vitro*. *J. oral Rehabilitation*, **25**, 45–51
- Boutin, C., Dumortier, P., Rey, F., Viallat, J.R. & De Vuyst, P. (1996) Black spots concentrate oncogenic asbestos fibers in the parietal pleura. *Am. J. resp. crit. Care Med.*, **153**, 444–449
- Bowers, D.G., Jr & Radlauer, C.B. (1969) Breast cancer after prophylactic subcutaneous mastectomies and reconstruction with silastic prostheses. *Plast. reconstr. Surg.*, **44**, 541–544
- Boylan, A.M., Ruegg, C., Kim, K.J., Hebert, C.A., Hoeffel, J.M., Pytela, R., Sheppard, P., Goldstein, I.M. & Broaddus, V.C. (1992) Evidence of a role for mesothelial cell-derived interleukin-8 in the pathogenesis of asbestos-induced pleurisy in rabbits. *J. clin. Invest.*, **89**, 1257–1267
- Boylan, A.M., Sanan, D.A., Sheppard, D. & Broaddus, V.C. (1995) Vitronectin enhances internalization of crocidolite asbestos by rabbit pleural mesothelial cells via the integrin  $\alpha v\beta 5$ . *J. clin. Invest.*, **96**, 1987–2001
- Bradley, S.G., Munson, A.E., McCay, J.A., Brown, R.D., Musgrove, D.L., Wilson, S., Stern, M., Luster, M.I. & White, K.L., Jr (1994a) Subchronic 10 day immunotoxicity of polydimethylsiloxane (silicone) fluid, gel and elastomer and polyurethane disks in female B6C3F1 mice. *Drug chem. Toxicol.*, **17**, 175–220
- Bradley, S.G., White, K.L., Jr, McCay, J.A., Brown, R.D., Musgrove, D.L., Wilson, S., Stern, M., Luster, M.I. & Munson, A.E. (1994b) Immunotoxicity of 180 day exposure to polydimethylsiloxane (silicone) fluid, gel and elastomer and polyurethane disks in female B6C3F1 mice. *Drug chem. Toxicol.*, **17**, 221–269
- Branchaud, R.M., Garant, L.J. & Kane, A.B. (1993) Pathogenesis of mesothelial reactions to asbestos fibers. Monocyte recruitment and macrophage activation. *Pathobiology*, **61**, 154–163
- Brand, K.G. (1976) Diversity and complexity of carcinogenic processes: conceptual inferences from foreign-body tumorigenesis. *J. natl Cancer Inst.*, **57**, 973–976
- Brand, K.G. (1982) Cancer associated with asbestosis, schistosomiasis, foreign bodies, and scars. In: Becker, F.F., ed., *Cancer: A Comprehensive Treatise*, 2nd Ed., New York, Plenum Press, pp. 661–692

- Brand, K.G. (1987) Solid state carcinogenesis. In: Butterworth, B.E. & Slaga, T.J., eds, *Non-genotoxic Mechanisms in Carcinogenesis* (Banbury Report 25), Cold Spring Harbor, CSH Press, pp. 205–213
- Brand, K.G. (1994) Do implanted medical devices cause cancer? *J. biomater. Appl.*, **8**, 325–343
- Brand, K.G., Buoen, L.C. & Brand, I. (1967a) Carcinogenesis from polymer implants: new aspects from chromosomal and transplantation studies during premalignancy. *J. natl Cancer Inst.*, **39**, 663–679
- Brand, K.G., Buoen, L.C. & Brand, I. (1967b) Premalignant cells in tumorigenesis induced by plastic film. *Nature*, **213**, 810
- Brand, K.G., Buoen, L.C. & Brand, I. (1971) Foreign body tumorigenesis: timing and location of preneoplastic events. *J. natl Cancer Inst.*, **47**, 829–836
- Brand, K.G., Buoen, L.C. & Brand, I. (1973) Foreign-body tumorigenesis in mice: most probable number of originator cells. *J. natl Cancer Inst.*, **51**, 1071–1074
- Brand, K.G., Buoen, L.C., Johnson, K.H. & Brand, I. (1975a) Etiological factors, stages, and the role of the foreign body in foreign body tumorigenesis: a review. *Cancer Res.*, **35**, 279–286
- Brand, K.G., Buoen, L.C. & Brand, I. (1975b) Foreign-body tumorigenesis induced by glass and smooth and rough plastic; comparative study of preneoplastic events. *J. natl Cancer Inst.*, **55**, 319–322
- Brand, K.G., Buoen, L.C. & Brand, I. (1975c) Foreign-body tumorigenesis by vinyl chloride vinyl acetate copolymer: no evidence for chemical cocarcinogenesis. *J. natl Cancer Inst.*, **54**, 1259–1262
- Brand, I., Buoen, L.C. & Brand, K.G. (1977) Foreign-body tumors of mice: strain and sex differences in latency and incidence. *J. natl Cancer Inst.*, **58**, 1443–1447
- Brånenmark, P.I. (1983) Osseointegration and first experimental background. *J. prosth. Dent.*, **3**, 399–410
- Bratel, J., Hakeberg, M. & Jontell, M. (1996) Effect of replacement of dental amalgam on oral lichenoid reactions. *J. Dent.*, **24**, 41–45
- Brick, R.M., Pense, A.W. & Gordon, R.B. (1977) *Structure and Properties of Engineering Materials*, New York, McGraw-Hill, pp. 234–241, 337–343, 386–391
- Brien, W.W., Salvati, E.A., Healey, J.H., Bansal, M., Ghelman, B. & Betts, F. (1990) Osteogenic sarcoma arising in the area of a total hip replacement. A case report. *J. Bone Joint Surg.*, **72A**, 1097–1099
- Brinton, L.A. & Brown, S.L. (1997) Breast implants and cancer. *J. natl Cancer Inst.*, **89**, 1341–1349
- Brinton, L.A., Malone, K.E., Coates, R.J., Schoenberg, J.B., Swanson, C.A., Daling, J.R. & Stanford, J.L. (1996) Breast enlargement and reduction: results from a breast cancer case-control study. *Plast. Reconstr. Surg.*, **97**, 269–275
- Briscoe, C.M., Lipscomb, T.P. & McKinney, L. (1998) Pulmonary metastasis of a feline vaccination site fibrosarcoma. *J. vet. Diagn. Invest.*, **10**, 79–82
- Broaddus, V.C., Yang, L., Scavo, L.M., Ernst, J.D. & Boylan, A.M. (1996) Asbestos induces apoptosis of human and rabbit pleural mesothelial cells via reactive oxygen species. *J. clin. Invest.*, **98**, 2050–2059

- Brody, R.I., Ueda, T., Hamelin, A., Jhanwar, S.C., Bridge, J.A., Healey, J.H., Huvos, A.G., Gerald, W.L. & Ladanyi, M. (1997a) Molecular analysis of the fusion of *EWS* to an orphan nuclear receptor gene in extraskeletal myxoid chondrosarcoma. *Am. J. Pathol.*, **150**, 1049–1058
- Brody, A.R., Liu, J.-Y., Brass, D. & Corti, M. (1997b) Analyzing the genes and peptide growth factors expressed in lung cells *in vivo* consequent to asbestos exposure and *in vitro*. *Environ. Health Perspect.*, **105** (Suppl. 5), 1165–1171
- Brorson, T., Skarping, G. & Sango, C. (1991) Biological monitoring of isocyanates and related amines. IV. 2,4- and 2,6-Toluenediamine in hydrolysed plasma and urine after test-chamber exposure of humans to 2,4- and 2,6-toluene diisocyanate. *Int. Arch. occup. environ. Health*, **63**, 253–259
- Brown, S.A. & Lemons, J.E. (1996) Overview. In: Brown, S.A. & Lemons, J.E., eds, *Medical Applications of Titanium and its Alloys: The Material and Biological Issues*, STP 1272, West Conshohocken, PA, Association of Standard Testing Materials, pp. ix–xii
- Brown, S.A., Farnsworth, L.J., Merritt, K. & Crowe, T.D. (1988) In vitro and in vivo metal ion release. *J. biomed. Mater. Res.*, **22**, 321–338
- Brown, S.A., Zhang, K., Merritt, K. & Payer, J.H. (1993) In vivo transport and excretion of corrosion products from accelerated anodic corrosion of porous coated F75 alloy. *J. biomed. Mater. Res.*, **27**, 1007–1017
- Brown, D.M., Roberts, N.K. & Donaldson, K. (1998) Effect of coating with lung lining fluid on the ability of fibres to produce a respiratory burst in rat alveolar macrophages. *Toxicol. In Vitro*, **12**, 15–24
- Brunnberg, V.L., Gunsser, I. & Hänichen, T. (1980) Bone tumours in dogs after trauma and osteosynthesis. *Kleintier Prax.*, **25**, 143–152 (in German)
- Brunner, H. (1959) Experimental formation of tumours by implantation of polymethyl methacrylate in rats. *Arzneim. Forsch.*, **9**, 396–399 (in German)
- Bryant, H. & Brasher, P. (1995) Breast implants and breast cancer—reanalysis of a linkage study. *New Engl. J. Med.*, **332**, 1535–1539
- Bryant, H., Brasher, P., van de Sande, J.H. & Turc, J.M. (1994) Review of methods in ‘breast augmentation: a risk factor for breast cancer?’ (Letter to the Editor) *New Engl. J. Med.*, **330**, 293
- Brydson, J.A. (1979) *Plastics Materials*, 3rd Ed., London, Butterworths
- Bryson, G. & Bischoff, F. (1969) The limitations of safety testing. *Prog. exp. Tumor Res.*, **11**, 100–133
- Budunova, I.V. & Williams, G.M. (1994) Cell culture assays for chemicals with tumor-promoting or tumor-inhibiting activity based on the modulation of intercellular communication. *Cell Biol. Toxicol.*, **10**, 71–116
- Buoen, L.C., Brand, I. & Brand, K.G. (1975) Foreign-body tumorigenesis: In vitro isolation and expansion of preneoplastic clonal cell populations. *J. natl Cancer Inst.*, **55**, 721–723
- Bürkle de la Camp, H. (1958) Failure and hazards of alloplastics in bones and joint surgery. *Langenbecks Arch. Klin.*, **289**, 463–475 (in German)

- Burns, W.A., Kanhouwa, S., Tillman, L., Saini, N. & Herrmann, J.B. (1972) Fibrosarcoma occurring at the site of a plastic vascular graft. *Cancer*, **29**, 66–72
- Burns, J.W., Colt, M.J., Burgess, L.S. & Skinner, K.C. (1997) Preclinical evaluation of Seprafilm™ bioresorbable membrane. *Eur. J. Surg.*, **577**, 40–48
- Burns-Naas, L.A., Mast, R.W., Meeks, R.G., Mann, P.C. & Thevenaz, P. (1998) Inhalation toxicology of decamethylcyclopentasiloxane (D5) following a 3-month nose-only exposure in Fischer 344 rats. *Toxicol. Sci.*, **43**, 230–240
- Butterworth, B.E., Popp, J.A., Conolly, R.B. & Goldsworthy, T.L. (1992) Chemically induced cell proliferation in carcinogenesis. In: Vainio, H., Magee, P., McGregor, D. & McMichael, A.J., eds, *Mechanism of Carcinogenesis in Risk Identification* (IARC Scientific Publications No.116), Lyon, IARC, pp. 279–305
- Button, M. (1979) Epithelioid sarcoma: A case report. *J. Hand Surg.*, **4**, 368–371
- Cameron, T. (1993) Short-Term Test Program Sponsored by the Division of Cancer Etiology, National Cancer Institute, Bethesda, MD, National Cancer Institute
- Camps, J., Tardieu, C., Déjou, J., Franquin, J.C., Ladaïque, P. & Rieu, R. (1997) In vitro cytotoxicity of dental adhesive systems under simulated pulpal pressure. *Dent. Mater.*, **13**, 34–42
- Can, Z., Yilmaz, S., Riza, A., Apaydin, E.I. & Kuzu, I. (1998) Sarcoma developing in a burn scar: case report and review of the literature. *Burns*, **24**, 68–71
- Carbone, M., Rizzo, P. & Pass, H.I. (1997) Simian virus 40, polio vaccines and human tumors: a review of recent developments. *Oncogene*, **15**, 1889–1894
- Carrillo, T., Cuevas, M., Munoz, T., Hinjosa, M. & Moneo, L. (1986) Contact urticaria and rhinitis from latex surgical gloves. *Contact Derm.*, **15**, 69–72
- Carter, R.L. & Roe, F.J. (1969) Induction of sarcomas in rats by solid and fragmented polyethylene: experimental observations and clinical implications. *Br. J. Cancer*, **23**, 401–407
- Carter, R.L., Roe, F.J. & Peto, R. (1971) Tumor induction by plastic films: attempt to correlate carcinogenic activity with certain physicochemical properties of the implant. *J. natl Cancer Inst.*, **46**, 1277–1289
- Case, C.P., Langkamer, V.G., Howell, R.T., Webb, J., Standen, G., Palmer, M., Kemp, A. & Learmonth, I.D. (1996) Preliminary observations on possible premalignant changes in bone marrow adjacent to worn total hip arthroplasty implants. *Clin. Orthop. rel. Res.*, **329** (Suppl.), S269–S279
- Castleman, B. & McNeely, B.U. (1965) Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 38-1965. Presentation of case. *New Engl. J. Med.*, **273**, 494–504
- Caughman, W.F., Caughman, G.B., Shiflett, R.A., Rueggeberg, F. & Schuster, G.S. (1991) Correlation of cytotoxicity, filler loading and curing time of dental composites. *Biomaterials*, **12**, 737–740
- Cesarman, E. & Knowles, D.M. (1997) Kaposi's sarcoma-associated herpesvirus: a lymphotropic human herpesvirus associated with Kaposi's sarcoma, primary effusion lymphoma, and multicentric Castleman's disease. *Semin. diagn. Pathol.*, **14**, 54–66
- Chan, J.C.K. (1996) Inflammatory pseudotumor: a family of lesions of diverse nature and etiologies. *Adv. anat. Pathol.*, **3**, 156–171

- Chan, J.C.K. (1997) Proliferative lesions of follicular dendritic cells an overview including a detailed account of follicular dendritic cell sarcoma a neoplasms with many faces and uncommon etiologic associations. *Adv. Anat. Pathol.*, **4**, 387–411
- Chan, S.C., Birdsall, D.C. & Gradeen, C.Y. (1991a) Detection of toluenediamines in the urine of a patient with polyurethane-covered breast implants. *Clin. Chem.*, **37**, 756–758
- Chan, S.C., Birdsall, D.C. & Gradeen C.Y. (1991b) Urinary excretion of free toluenediamines in a patient with polyurethane-covered breast implants *Clin. Chem.*, **37**, 2143–2145
- Chang, Y.-H. (1993) Adjuvanticity and arthritogenicity of silicone. *Plast. Reconstr. Surg.*, **92**, 469–473
- Chao, C.-C., Park, S.-H. & Aust, A.E. (1996) Participation of nitric oxide and iron in the oxidation of DNA in asbestos-treated human lung cells. *Arch. Biochem. Biophys.*, **326**, 152–157
- Charnley, J. (1970) The reaction of bone to self-curing acrylic cement. A long-term histological study in man. *J. Bone Joint Surg.*, **52B**, 340–353
- Charnley, J. & Cupic, Z. (1973) The nine and ten year results of the low-friction arthroplasty of the hip. *Clin. Orthop.*, **95**, 9–25
- Charosky, C.B., Bullough, P.G. & Wilson, P.D., Jr (1973) Total hip replacement failures. A histological evaluation. *J. Bone Joint Surg.*, **55A**, 49–58
- Chivers, C.P. (1972) Two cases of occupational leucoderma following contact with hydroquinone monomethyl ether. *Br. J. Ind. Med.*, **29**, 105–107
- Chung, E.B. & Enzinger, F.M. (1975) Proliferative fasciitis. *Cancer*, **36**, 1450–1458
- Chung, E.B. & Enzinger, F.M. (1983) Malignant melanoma of soft parts. A reassessment of clear cell sarcoma. *Am. J. Surg. Pathol.*, **7**, 405–413
- Clayton, G.D. & Clayton, F.E., eds (1993) *Patty's Industrial Hygiene and Toxicology*, II Part A, Toxicology, New York, John Wiley, pp. 485–486
- Clouter, A., Houghton, C.E., Bowskill, C.A., Hibbs, L.R., Brown, R.C. & Hoskins, J.A. (1997) Effect of inhaled fibers on the glutathione concentration and  $\gamma$ -glutamyl transpeptidase activity in lung type II epithelial cells, macrophages, and bronchoalveolar lavage fluid. *Inhal. Toxicol.*, **9**, 351–367
- Cocke, W.M., Jr & Tomlinson, J.A. (1993) Malignant fibrous histiocytoma developing in burn scar of the ear. *Burns*, **19**, 241–243
- Coffin, C.M., Watterson, J., Priest, J.R. & Dehner, L.P. (1995) Extrapulmonary inflammatory myofibroblastic tumor (inflammatory pseudotumor). A clinicopathologic and immunohistochemical study of 84 cases. *Am. J. Surg. Pathol.*, **19**, 859–872
- Coindre, J.M. (1993) Pathology and grading of soft tissue sarcomas. *Cancer Treat. Res.*, **67**, 1–22
- Cole, B.J., Schultz, E., Smilari, T.F., Hajdu, S.I. & Krauss, E.S. (1997) Malignant fibrous histiocytoma at the site of a total hip replacement: review of the literature and case report. *Skel. Radiol.*, **26**, 559–563
- Coleman, M.P. (1996) Cancer risk from orthopedic prostheses. *Ann. clin. Lab. Sci.*, **26**, 139–146
- Collard, S.M., McDaniel, R.K. & Johnston, D.A. (1989) Particle size and composition of composite dusts. *Am. J. Dent.*, **2**, 247–253

- Collard, S.M., Vogel, J.J. & Ladd, G.D. (1991) Respirability, microstructure and filler content of composite dusts. *Am. J. Dent.*, **4**, 143–151
- Committee on Toxicity of Chemicals in Food Consumer Products and the Environment (1997) *Statement on the Toxicity of Dental Amalgam*, London, Department of Health
- Cook, P.D., Osborne, B.M., Connor, R.L. & Strauss J.F. (1995) Follicular lymphoma adjacent to foreign body granulomatous inflammation and fibrosis surrounding silicone breast prosthesis. *Am. J. surg. Pathol.*, **19**, 712–717
- Cook, L.S., Daling, J.R., Voigt, L.F., deHart, M.P., Malone, K.E., Stanford, J.L., Weiss, N.S., Brinton, L.A., Gammon, M.D. & Brogan, D. (1997) Characteristics of women with and without breast augmentation. *J. Am. med. Assoc.*, **277**, 1612–1617
- Coombes, A.G.A. & Meikle, M.C. (1994) Resorbable polymers as replacements for bone grafts. *Clin. Mater.*, **17**, 35–67
- Cooper, C.S. (1996) Translocations in solid tumours. *Curr. Opin. Genet. Dev.*, **6**, 71–75
- Costa, M. (1997) Nonmutagenic mechanisms of nickel carcinogenesis: inactivation of critical genes by nickel-induced DNA methylation and chromatin condensation. In: Dungworth, D.L., Adler, K.B., Harris, C.C. & Plopper, C.G., eds, *Correlations Between In Vitro and In Vivo Investigations in Inhalation Toxicology*, Washington DC, ILSI Press, pp. 359–366
- Costantino, P.D. (1994) Synthetic biomaterials for soft-tissue augmentation and replacement in the head and neck. *Otolaryngol. Clin. North Am.*, **27**, 223–262
- Cox, C.F., Suzuki, S. & Suzuki, S.H. (1995) Biocompatibility of dental adhesives. *J. Calif. Dent. Assoc.*, **23**, 35–41
- Coyne, M.J., Postorini-Reeves, N.C. & Rosen, D.K. (1997) Estimated prevalence of injection-site sarcomas in cats during 1992. *J. Am. vet. Med. Assoc.*, **210**, 249–251
- Crespi, G. & Luciani, L. (1981) Polypropylene. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 16, 3rd Ed., New York, John Wiley, pp. 453–469
- Cross, N.G., Taylor, R.F. & Nunez, L.J. (1983) ‘Single-step’ orthodontic bonding systems: Possible mutagenic potential. *Am. J. Orthod.*, **84**, 344–350
- Crowninshield, R. (1988) An overview of prosthetic materials for fixation. *Clin. Orthop.*, **235**, 166–172
- Dahlmann, J. (1951) Traumatic lung carcinoma. *Fortschr. Röntgenstr.*, **75**, 628–635 (in German)
- Dalal, J.J., Winterbottam, T., West, R.R. & Henderson, A.H. (1980) Implanted pacemakers and breast cancer (Letter to the Editor). *Lancet*, **ii**, 311
- Dalinka, M.K., Rockett, J.F. & Kurth, R.J. (1969) Carcinoma of the breast following simple mastectomy and mammoplasty. *Radiology*, **93**, 914
- Dasler, W. & Milliser, R.V. (1963) Induction of tumors in rats by subcutaneous implants of surgical sponges. *Experimentia*, **19**, 424–426
- Davila, R.M. & Crouch, E.C. (1993) Role of mesothelial and submesothelial stromal cells in matrix remodeling following pleural injury. *Am. J. Pathol.*, **142**, 547–555
- Davis, R.F. (1979) Ceramics (scope). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 5, 3rd Ed., New York, John Wiley, pp. 234–237

- Davis, G.W. (1982) Polyester fibers. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 531–594
- Dawes, E. & Rushton, N. (1997) Response of macrophages to poly(L-lactide) particulates which have undergone various degrees of artificial degradation. *Biomaterials*, **18**, 1615–1623
- Deapen, D.M. & Brody, G.S. (1995) Augmentation mammoplasty and breast cancer: a five-year update of the Los Angeles study. *J. clin. Epidemiol.*, **48**, 551–556
- Deapen, D.M., Pike, M.C., Casagrande, J.T. & Brody, G.S. (1986) The relationship between breast cancer and augmentation mammoplasty: an epidemiologic study. *Plast. reconstruct. Surg.*, **77**, 361–367
- Deapen, D.M., Bernstein, L. & Brody, G.S. (1997) Are breast implants anticarcinogenic? A 14-year follow-up of the Los Angeles study. *Plast. reconstruct. Surg.*, **99**, 1346–1353
- Dearfield, K.L., Millis, C.S., Harrington-Brock, K., Doerr, C.L. & Moore, M.M. (1989) Analysis of the genotoxicity of nine acrylate/methacrylate compounds in L5178Y mouse lymphoma cells. *Mutagenesis*, **4**, 381–393
- De Giovanni, J.V. (1995) Medical devices: new regulations, new responsibilities. *Br. Heart J.*, **73**, 401–402
- Dei Tos, A.P. & Dal Cin, P. (1997) The role of cytogenetics in the classification of soft tissue tumours. *Virchows Arch.*, **431**, 83–94
- Delclos, K.B., Blaydes, B., Heflich, R.H. & Smith, B.A. (1996) Assessment of DNA adducts and the frequency of 6-thioguanine resistant T-lymphocytes in F344 rats fed 2,4-toluenediamine or implanted with a toluediisocyanate-containing polyester polyurethane foam. *Mutat. Res.*, **367**, 209–218
- Delgado, E.R. (1958) Sarcoma following a surgically treated fractured tibia. A case report. *Clin. Orthop.*, **12**, 315–318
- del Rosario, A.D., Bui, H.X., Petrocine, S., Sheehan, C., Pastore, J., Singh, J. & Ross, J.S. (1995) True synovial metaplasia of breast implant capsules: a light and electron microscopic study. *Ultrastruct. Pathol.*, **19**, 83–93
- Desjacques, R. (1939) Cancer and war injuries (knee sarcoma, 21 years after war injury). *Rev. chir. (Paris)*, **58**, 373–375 (in French)
- Deva, A.K., Merten, S. & Chang, L. (1998) Silicone in nasal augmentation rhinoplasty: A decade of clinical experience. *Plast. reconstruct. Surg.*, **102**, 1230–1237
- Devor, D.E., Waalkes, M.P., Goering, P. & Rehm, S. (1993) Development of an animal model for testing human breast implantation materials. *Toxicol. Pathol.*, **21**, 261–273
- Dewan, P.A., Owen, A.J. & Byard, R.W. (1995) Long-term histological response to subcutaneously injected Polytef and Bioplastique in a rat model. *Br. J. Urol.*, **76**, 161–164
- Dickinson, G.L., Leinfelder, K.F., Mazer, R.B. & Russell, C.M. (1990) Effect of surface penetrating sealant on wear rate of posterior composite resins. *J. Am. dent. Assoc.*, **121**, 251–255
- Dietrich, A. (1950) *Krebs im Gefolge des Krieges*, Stuttgart, S. Hirzel Verlag
- Dietrich, W. (1958) Trauma and malignant tumour: an expert opinion. *Zentralbl. Chir.*, **83**, 1878–1883 (in German)

- Digby, J.M. (1982) Malignant lymphoma with intranodal silicone rubber particles following metacarpophalangeal joint replacements. *Hand*, **14**, 326–328
- Di Maio, V.J.M. (1985) *Gunshot Wounds. Practical Aspects of Firearms, Ballistics, and Forensic Techniques*, New York, Elsevier, pp. 19–22, 99–125, 143–146, 175–179
- Dodion, P., Putz, P., Amiri-Lamraski, M.H., Efira, A., de Martelaere, E. & Heimann, R. (1983) Immunoblastic lymphoma at the site of an infected vitallium bone plate. *Histopathology*, **6**, 807–813
- Donaghy, M., Rushworth, G. & Jacobs, J.M. (1991) Generalized peripheral neuropathy in a dental technician exposed to methyl methacrylate monomer. *Neurology*, **41**, 1112–1116
- Donaldson, K. (1996) Short-term animal studies for detecting inflammation, fibrosis and pre-neoplastic changes induced by fibres. In: Kane, A.B., Boffetta, P., Saracci, R. & Wilbourn, J.D., eds, *Mechanisms of Fibre Carcinogenesis* (IARC Scientific Publications No. 140), Lyon, IARC, pp. 97–106
- Dontenwill, W. & Graf, R. (1953) Malignant neurinoma after gunshot injury. *Z. Krebsforsch.*, **59**, 381–388 (in German)
- Doorn, P.F., Campbell, P.A., Worrall, J., Benya, P.D., McKellop, H.A. & Amstutz, H.C. (1998) Metal wear particle characterization from metal on metal total hip replacements: transmission electron microscopy study of periprosthetic tissues and isolated particles. *J. biomed. Mater. Res.*, **42**, 103–111
- Dorado, L., Ruis-Montoya, M.R. & Rodriguez-Mellado, J.M. (1992) A contribution to the study of the structure-mutagenicity relationship for alpha-dicarbonyl compounds using the Ames test. *Mutat. Res.*, **269**, 301–306
- Doran, A., Law, F.C., Allen, M.J. & Rushton, N. (1998) Neoplastic transformation of cells by soluble but not particulate forms of metals used in orthopaedic implants. *Biomaterials*, **19**, 751–759
- Dorland (1998) *Medical and Health Care Market Place*, Philadelphia, Dorland's Directories
- Dorne, L., Alikacem, N., Guidoin, R. & Auger, M. (1995) High resolution solid state <sup>29</sup>Si NMR spectroscopy of silicone gels used to fill breast prostheses. *Magn. Reson. Med.*, **34**, 548–554
- Dorr, L.D., Bloebaum, R., Emmanuel, J. & Meldrum, R. (1990) Histologic, biochemical, and ion analysis of tissue and fluids retrieved during total hip arthroplasty. *Clin. Orthop. & Related Res.*, **261**, 82–95
- Downey, D. (1989) Contact mucositis due to palladium (Short communication). *Contact Derm.*, **21**, 54
- Driscoll, K.E., Deyo, L.C., Carter, J.M., Howard, B.W., Hassenbein, D.G. & Bertram, T.A. (1997) Effects of particle exposure and particle-elicited inflammatory cells on mutation in rat alveolar epithelial cells. *Carcinogenesis*, **18**, 423–430
- Druckrey, H. & Schmähl, D. (1952) Carcinogenic action of plastic films. *Z. Naturforsch.*, **7**, 353–356 (in German)
- Druckrey, H. & Schmähl, D. (1954) Carcinogenicity of polyethylene films in rats. *Z. Krebsforsch.*, **96**, 529–530 (in German)
- Drut, R. & Barletta, L. (1975) Osteogenic sarcoma arising in an old burn scar. *J. cutan. Pathol.*, **2**, 302–306

- Dube, V.E. & Fisher, D.E. (1972) Hemangioendothelioma of the leg following metallic fixation of the tibia. *Cancer*, **30**, 1260–1266
- Dubeau, L. & Fraser, R.S. (1984) Long-term effects of pulmonary shrapnel injury. Report of a case with carcinoma and residual shrapnel tract. *Arch. Pathol. Lab. Med.*, **108**, 407–409
- Dubielzig, R.R., Hawkins, K.L. & Miller, P.E. (1993) Myofibroblastic sarcoma originating at the site of rabies vaccination in a cat. *J. vet. Diagn. Invest.*, **5**, 637–638
- Duffy, D.M. (1990) Silicone: a critical review. *Adv. Dermatol.*, **5**, 93–100
- Dukes, C.E. & Mitchley, B.C.V. (1962) Polyvinyl sponge implants: experimental and clinical observations. *Br. J. plast. Surg.*, **15**, 225–235
- Dunaif, C.B., Stubenbord, W.T. & Conway, H. (1963) Observations on subcutaneously implanted polyetherurethane sponge in mice. *Surg. Gynecol. Obstet.*, **10**, 454–458
- Dunipace, A.J., Noblitt, T.W., Li, Y. & Stookey, G.K. (1990) *In vivo* genotoxic assays for evaluation of dental materials (Abstract). *J. dent. Res.*, **69**, 229
- Dupree, W.B. & Enzinger, F.M. (1986) Fibro-osseous pseudotumor of the digits. *Cancer*, **58**, 2103–2109
- Duvic, M., Moore, D., Menter, A. & Vonderheid, E.C. (1995) Cutaneous T-cell lymphoma in association with silicone breast implants. *J. Am. Acad. Dermatol.*, **32**, 939–942
- Ebert, G. (1954) Sarcoma formation after injury. *Langenbecks Arch. dtch. Z. Chir.*, **278**, 218–228 (in German)
- Eckstein, F.S., Vogel, U. & Mohr, W. (1992) Fibrosarcoma in association with a total knee joint prosthesis. *Virchows Arch. A Pathol. Anat.*, **421**, 175–178
- Edwards, C.K. III, Ghiasuddin, S.M., Schepper, J.M., Yunger, L.M. & Kelley, K.W. (1988) A newly defined property of somatotropin: priming of macrophages for production of superoxide anion. *Science*, **239**, 769–771
- Eistert, B., Glanz, H. & Kleinsasser, O. (1989) Two cases of laryngeal cancer following gunshot injury. *HNO*, **37**, 220–223 (in German)
- Ekfors, T.O., Aro, H., Mäki, J. & Aho, A.J. (1984) Cystic osteolysis induced by silicone rubber prosthesis. *Arch. Pathol. Lab. Med.*, **108**, 225–227
- Elbaum, R., Pignoly, C. & Brouillet, J.L. (1991) A histologic study of the biocompatibility of a dentinal bonding system. *Quintessence Int.*, **22**, 901–910
- Emory, T.S., Scheithauer, B.W., Hirose, T., Wood, M., Onofrio, B.M. & Jenkins, R.B. (1995) Intraneuronal perineurioma. A clonal neoplasm associated with abnormalities of chromosome 22. *Am. J. clin. Pathol.*, **103**, 696–704
- Engel, A., Lamm, S.H. & Lai, S.H. (1995) Human breast sarcoma and human breast implantation: a time trend analysis based on SEER data (1973–1990). *J. clin. Epidemiol.*, **48**, 539–544
- Engelhardt, J.P. & Grün, L. (1972) Microbial breakdown of methyl methacrylate, plasticizers and netting agent. *Dtsch. Zahnärztl. Z.*, **27**, 466–473 (in German)
- Enzinger, F.M. & Dulcey, F. (1967) Proliferative myositis. Report of thirty-three cases. *Cancer*, **20**, 2213–2223
- Enzinger, F.M. & Weiss, S.W., eds (1995) *Soft Tissue Tumors*, 3rd Ed., St Louis, C.V. Mosby

- Erlandson, R.A., ed. (1994) *Diagnostic Transmission Electron Microscopy of Tumors with Clinico-Pathological, Immunohistochemical and Cytogenetic Correlations*, New York, Raven Press
- Esplin, D.G. & Campbell, R. (1995) Widespread metastasis of a fibrosarcoma associated with a vaccination site in a cat. *Feline Pract.*, **23**, 13–16
- Esplin, D.G., Jaffe, M.H. & McGill, L.D. (1996) Metastasizing liposarcoma associated with a vaccination site in a cat. *Feline Pract.*, **24**, 20–23
- Evans, H.L. (1993) Low-grade fibromyxoid sarcoma. A report of 12 cases. *Am. J. surg. Pathol.*, **17**, 595–600
- Evans, D.M.D., Williams, W.J. & Kung, I.T.M. (1983) Angiosarcoma and hepatocellular carcinoma in vinyl chloride workers. *Histopathology*, **7**, 377–388
- Everitt, J.I. (1994) Mechanisms of fiber-induced diseases: implications for the safety evaluation of synthetic vitreous fibers. *Regul. Toxicol. Pharmacol.*, **20**, S67–S75
- Fehrenbacher, J.W., Bowers, W., Strate, R. & Pittman, J. (1981) Angiosarcoma of the aorta associated with a Dacron graft. *Ann. thorac. Surg.*, **32**, 297–301
- Fischer-Wasels, J. (1951) ‘Scar-carcinoma’ after shrapnel injury with 30 years latency. *Z. Krebsforsch.*, **57**, 379–386 (in German)
- Fisher, A.A. (1982) Contact dermatitis in medical and surgical personnel. In: Maibach, H.I. & Gellin, G.A., eds, *Occupational and Industrial Dermatology*, Chicago, Year Book Medical Publishers, pp. 219–228
- Fisher, C. (1986) Synovial sarcoma: ultrastructural and immunohistochemical features of epithelial differentiation in monophasic and biphasic tumors. *Hum. Pathol.*, **17**, 996–1008
- Fisher, C. (1988) Epithelioid sarcoma: the spectrum of ultrastructural differentiation in seven immunohistochemically defined cases. *Hum. Pathol.*, **19**, 265–275
- Fisher, C. (1996) Fibrohistiocytic tumors. *Monogr. Pathol.*, **38**, 162–180
- Fisher, C. (1999) Current aspects of the pathology of soft tissue sarcomas. *Semin. Rad. Oncol.* (in press)
- Fisher, C., Flood, L.M. & Ramsey, A.D. (1992) The role of electron microscopy in the diagnosis of tumours of the head and neck. *J. Laryngol. Otol.*, **106**, 403–408
- Fletcher, C.D.M. (1992) Pleomorphic malignant fibrous histiocytoma: fact or fiction? A critical reappraisal based on 159 tumors diagnosed as pleomorphic sarcoma. *Am. J. surg. Pathol.*, **16**, 213–228
- Foley, R.T. & Brown, B.F. (1979) Corrosion and corrosion inhibitors. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 7, 3rd Ed., New York, John Wiley, pp. 113–142
- Fontana, M.G. & Greene, N.D. (1978) *Corrosion Engineering*, 2nd Ed., New York, McGraw-Hill, pp. 38–45, 60–63
- Fraedrich, G., Kracht, J., Scheld, H.H., Jundt, G. & Mulch, J. (1984) Sarcoma of the lung in a pacemaker pocket—Simple coincidence or oncotaxis? *Thorac. cardiovasc. Surgeon*, **32**, 67–69
- Frantz, P. & Herbst, C.A., Jr (1975) Augmentation mammoplasty, irradiation, and breast cancer. A case report. *Cancer*, **36**, 1147–1150

- Freilich, M.A., Goldberg, A.J., Gilpatrick, R.O. & Simonsen, R.J. (1992) Three-year occlusal wear of posterior composite restorations. *Dent. Mater.*, **8**, 224–228
- Frey, R. & Knauer, W. (1949) Sarcoma and trauma. *Langenbecks Arch. dtsch. Z. Chir.*, **263**, 59–70 (in German)
- Friis, S., McLaughlin, J.K., Mellemkjær, L., Kjøller, K.H., Blot, W.J., Boice, J.D., Jr, Fraumeni, J.F., Jr & Olsen, J.H. (1997) Breast implants and cancer risk in Denmark. *Int. J. Cancer*, **7**, 956–958
- Fryzek, J.P., Mellemkjaer, L., McLaughlin, J.K., Blot, W.J. & Olsen, J.H. (1999) Cancer risk among patients with finger and hand joint and temporo-mandibular joint prostheses in Denmark. *Int. J. Cancer*, **81**, 723–725
- Fubini, B. (1996) Use of physico-chemical and cell-free assays to evaluate the potential carcinogenicity of fibres. In: Kane, A.B., Boffetta, P., Saracci, R. & Wilbourn, J.D., eds, *Mechanisms of Fibre Carcinogenesis* (IARC Scientific Publications No. 140), Lyon, IARC, pp. 35–54
- Fubini, B., Aust, A.E., Bolton, R.E., Borm, P.J.A., Bruch, J., Ciapetti, G., Donaldson, K., Elias, Z., Gold, J., Jaurand, M.C., Kane, A.B., Lison, D. & Muhle, H. (1998) Non-animal tests for evaluating the toxicity of solid xenobiotics. *ATLA*, **26**, 579–617
- Fujisawa, S., Kadoma, Y. & Masuhara, E. (1986) Effects of photoinitiators for the visible-light resin system on hemolysis of dog erythrocytes and lipid peroxidation of their components. *J. dent. Res.*, **65**, 1186–1190
- Fung, H., Kow, Y.W., Van Houten, B. & Mossman, B.T. (1997a) Patterns of 8-hydroxy-deoxyguanosine formation in DNA and indications of oxidative stress in rat and human pleural mesothelial cells after exposure to crocidolite asbestos. *Carcinogenesis*, **18**, 825–832
- Fung, H., Quinlan, T.R., Janssen, Y.M.W., Timblin, C.R., Marsh, J.P., Heintz, N.H., Taatjes, D.J., Vacek, P., Jaken, S., & Mossman, B.T. (1997b) Inhibition of protein kinase C prevents asbestos-induced *c-fos* and *c-jun* proto-oncogene expression in mesothelial cells. *Cancer Res.*, **57**, 3101–3105
- Fung, H., Kow, Y.W., Van Houten, B., Taatjes, D.J., Hatahet, Z., Janssen, Y.M.W., Vacek, P., Faux, S.P. & Mossman, B.T. (1998) Asbestos increases mammalian AP-endonuclease gene expression, protein levels, and enzyme activity in mesothelial cells. *Cancer Res.*, **58**, 189–194
- Furst, A. (1971) Trace elements related to specific chronic diseases: cancer. In: Cannon, H.L. & Hopps, H.C., eds, *Environmental Geochemistry in Health and Disease*, Boulder, CO, Geological Society of America, pp. 109–130
- Furst, A. & Cassetta, D. (1973) Carcinogenicity of nickel by different routes (Abstract No. 121). *Proc. Am. Assoc. Cancer Res.*, **14**, 31
- Furst, A. & Schlauder, M.C. (1971) The hamster as a model for metal carcinogenesis. *Proc. west. Pharmacol. Soc.*, **14**, 68–71
- Furst, A., Cassetta, D.M. & Sasmore, D.P. (1973) Rapid induction of pleural mesothelioma in the rat. *Proc. west. Pharmacol. Soc.*, **16**, 150–153
- Fyfe, B.S., Quintana, C.S., Kaneko, M. & Griepp, R.B. (1994) Aortic sarcoma four years after Dacron graft insertion. *Ann. thorac. Surg.*, **58**, 1752–1754

- Gabriel, S.E., O'Fallon, W.M., Kurland, L.T., Beard, C.M., Woods, J.E. & Melton, L.J., III (1994) Risk of connective-tissue diseases and other disorders after breast implantation. *New Engl. J. Med.*, **330**, 1697–1702
- Gaechter, A., Alroy, J., Andersson, G.B.J., Galante, J., Rostoker, W. & Schajowicz, F. (1977) Metal carcinogenesis: a study of the carcinogenic activity of solid metal alloys in rats. *J. Bone Joint Surg.*, **59A**, 622–624
- Galateau-Salle, F., Bidet, P.H., Iwatsubo, Y., Gennetay, E., Renier, A., Letourneau, M., Pairon, J.C., Moritz, S., Brochard, P., Jaurand, M.C. & Freymuth, F. (1998) SV40-like DNA sequences in pleural mesothelioma, bronchopulmonary carcinoma, and non-malignant pulmonary diseases. *J. Pathol.*, **184**, 252–257
- Gangal, S.V. (1980) Polytetrafluoroethylene. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 11, 3rd Ed., New York, John Wiley, pp. 1–24
- Gargan, T.J., Mitchell, L. & Plaus, W. (1988) Burn scar sarcoma. *Ann. plast. Surg.*, **20**, 477–480
- Garrido, L. & Ackerman, J.L. (1996)  $^{29}\text{Si}$  NMR and blood silicon levels in silicone gel breast implant recipients. *Magn. Reson. Med.*, **36**, 499–501
- Garrido, L., Pfleiderer, B., Papisov, M. & Ackerman, J.L. (1993) In vivo degradation of silicones. *Magn. Reson. Med.*, **29**, 839–843
- Geis-Gerstorfer, J. & Pässler, K. (1993) Studies on the influence of Be content on the corrosion behavior and mechanical properties of Ni-25Cr-10Mo alloys. *Dent. Mater.*, **9**, 177–181
- Geurtsen, W. & Leyhausen, G. (1997) Biological aspects of root canal filling materials—histocompatibility, cytotoxicity, and mutagenicity. *Clin. oral Invest.*, **1**, 5–11
- Ghio, A.J., Kadiiska, M.B., Xiang, Q.-H. & Mason, R.P. (1998) In vivo evidence of free radical formation after asbestos instillation: an ESR spin trapping investigation. *Free Rad. Biol. Med.*, **24**, 11–17
- Gill, R.J. (1993) AAS or ICP-OES: Are they competing techniques? *Am. Lab.*, November, 24F–24K
- Gillespie, W.J., Frampton, C.M.A., Henderson, R.J. & Ryan, P.M. (1988) The incidence of cancer following total hip replacement. *J. Bone Joint Surg.*, **70B**, 539–542
- Gillespie, W.J., Henry, D.A., O'Connell, D.L., Kendrick, S., Juszczak, E., McInneny, K. & Derby, L. (1996) Development of hematopoietic cancers after implantation of total joint replacement. *Clin. Orthopaed. rel. Res.*, **329** (Suppl.), S290–S296
- Glantz, P.-O. (1998) Biomaterial consideration for the optimized therapy for the edentulous predicament. *J. prost. Dent.*, **79**, 90–92
- Glod, D. & Frykberg, R.G. (1990) Foreign body reaction in a Dacron-meshed hemi-implant. *J. Foot Surg.*, **29**, 250–252
- Goasguen, J., Lapresle, J., Ribot, C. & Rocquet, G. (1982) Chronic neurological syndrome resulting from intoxication with metallic uranium. *Nouv. Press. Med.*, **11**, 119–121 (in French)
- Goldberg, J.L., Zanella, C.L., Janssen, Y.M.W., Timblin, C.R., Jimenez, L.A., Vacek, P., Taatjes, D.J. & Mossman, B.T. (1997) Novel cell imaging techniques show induction of apoptosis and proliferation in mesothelial cells by asbestos. *Am. J. respir. Cell mol. Biol.*, **17**, 265–271

- Goldhaber, P. (1962) Further observations concerning the carcinogenicity of Millipore filters (Abstract 96). *Proc. Am. Assoc. Cancer Res.*, **3**, 323
- Golladay, S.A., Park, S.-H. & Aust, A.E. (1997) Efflux of reduced glutathione after exposure of human lung epithelial cells to crocidolite asbestos. *Environ. Health Perspect.*, **105** (Suppl. 5), 1273–1277
- Golubyeva, V.A. & Mitin, V.N. (1984) Osteogenic sarcoma in a dog at site of a metallic bone-fixing pin. *Arch. Pathol. (Moscow)*, **46**, 34–37
- Gott, D.M. & Tinkler, J.J.B. (1994) *Evaluation of Evidence for Association Between the Implantation of Silicones and Connective Tissue Disease*, London, Medical Devices Agency, pp. 1–62
- Gottlieb, V., Muench, A.G., Rich, J.D. & Pagadala, S. (1984) Carcinoma in augmented breasts. *Ann. plast. Surg.*, **12**, 67–69
- Gould, V.E. (1986) Histogenesis and differentiation: a re-evaluation of these concepts as criteria for the classification of tumors. *Hum. Pathol.*, **17**, 212–215
- Granchi, D., Cenni, E., Ciapetti, G., Savarino, L., Stea, S., Gamberini, S., Gori, A. & Pizzoferrato, A. (1998) Cell death induced by metal ions: necrosis or apoptosis? *J. Materials Sci.: Materials in Medicine*, **9**, 31–37
- Grantham, P.H., Mohan, L., Benjamin, T., Roller, P.P., Miller, J.R. & Weisburger, E.K. (1979) Comparison of the metabolism of 2,4-toluenediamine in rats and mice. *J. Environ. Pathol. Toxicol.*, **3**, 149–166
- Gray, S.J. & Stirling, K. (1950) Tagging of red cells and plasma proteins with radioactive chromium. *J. clin. Invest.*, **29**, 1604–1613
- Greim, H., Ahlers, J., Bias, R., Broecker, B., Hollander, H., Gelbke, H.-P., Jacobi, S., Klimisch, H.-J., Mangelsdorf, I., Mayr, W., Schön, N., Stropp, G., Stahnecker, P., Vogel, R., Weber, C., Ziegler-Skylakakis, K. & Bayer, E. (1995) Assessment of structurally related chemicals: toxicity and ecotoxicity of acrylic acid and acrylic acid alkyl esters (acrylates), methacrylic acid and methacrylic acid alkyl esters (methacrylates). *Chemosphere*, **31**, 2637–2659
- Gridley, G., McLaughlin, J.K., Ekbom, A., Klareskoo, L., Adami, H.-O., Hacker, D.G., Hoover, R. & Fraumeni, J.F., Jr (1993) Incidence of cancer among patients with rheumatoid arthritis. *J. natl Cancer Inst.*, **85**, 307–311
- Grieve, A.R., Alani, A. & Saunders, W.P. (1991) The effects of the dental pulp of a composite resin and two dentine bonding agents and associated bacterial microneakage. *Int. Endod. J.*, **24**, 108–118
- Grimsdottir, M.R., Gjerdet, N.R. & Hensten-Pettersen, A. (1992) Composition and in vitro corrosion of orthodontic appliances. *Am. J. Orthod. Dentofac. Orthop.*, **101**, 525–532
- Griss, P., Werner, E., Buchinger, R., Büsing, C.-M. & Heimke, G. (1977) Experimental investigation on non-specific foreign body sarcoma induction of  $\text{Al}_2\text{O}_3$ -ceramic implants. *Arch. orthop. Unfall-Chir.*, **90**, 29–40 (in German)
- Grote, J.J., van Blitterswijk, C.A. & Kuijpers, W. (1986) Hydroxyapatite ceramic as middle ear implant material: animal experimental results. *Ann. Otol. Rhinol. Laryngol.*, **123** (Suppl.), 1–5

- Guyuron, B. & Lasa, C.I., Jr (1992) Reaction to stainless steel wire following orthognathic surgery. *Plast. Reconstr. Surg.*, **89**, 540–542
- Haag, M. & Adler, C.P. (1989) Malignant fibrous histiocytoma in association with hip replacement. *J. Bone Joint Surg.*, **71B**, 701
- Habal, M.B., Powell, M.L. & Schimpff, R.D. (1980) Immunological evaluation of the tumorigenic response to implanted polymers. *J. biomed. Mater. Res.*, **14**, 455–466
- Hagen, T.M., Huang, S., Curnutte, J., Fowler, P., Martinez, V., Wehr, C.M., Ames, B.N. & Chisari, F.V. (1994) Extensive oxidative DNA damage in hepatocytes of transgenic mice with chronic active hepatitis destined to develop hepatocellular carcinoma. *Proc. natl Acad. Sci. USA*, **91**, 12808–12812
- Hahn, F.F., Guilmette, R.A. & Hoover, M.D. (1999) Toxicity of uranium fragments in Wistar rats (Abstract). *The Toxicologist*, **48 (1-S)**, 333–334
- Hallervorden, J. (1948) Oligodendrogloma following brain trauma. *Nervenarzt*, **19**, 163–167 (in German)
- Hallström, U. (1993) Adverse reaction to a fissure sealant: Report of a case. *J. Dent. Child.*, **60**, 143–146
- Hamaker, W.R., Lindell, M.E. & Gomez, A.C. (1976) Plasmacytoma arising in a pacemaker pocket. *Ann. thor. Surg.*, **21**, 354–356
- Hanks, C.T., Strawn, S.E., Wataha, J.C. & Craig, R.G. (1991) Cytotoxic effects of resin components on cultured mammalian fibroblasts. *J. dent. Res.*, **70**, 1450–1455
- Hardman, B.B. & Torkelson, A. (1989) Silicones. In: Grayson, M., Mark, H.F., Othmer, D.F. & Othmer, D.F., eds, *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, New York, John Wiley, pp. 1062–1065
- Hare, T.M. (1979a) Ceramics (thermal treatment). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 5, 3rd Ed., New York, John Wiley, pp. 260–266
- Hare, T.M. (1979b) Ceramics (properties and applications). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 5, 3rd Ed., New York, John Wiley, pp. 267–290
- Harland, R.W., Sharma, M. & Rosenzweig, D.Y. (1993) Lung carcinoma in a patient with lucite sphere plombage thoracoplasty. *Chest*, **103**, 1295–1297
- Harmann, M.-F., Naji, A. & Gonfrier, P. (1994) *In vitro* study of biomaterial biodegradation using human cell cultures. *Clin. Mater.*, **15**, 281–285
- Harnirattisai, C. & Hosoda, H. (1991) Pulpal responses to various dentin bonding systems in dentin cavities. *Dent. Mater. J.*, **10**, 149–164
- Harris, W.R. (1990) Chondrosarcoma complicating total hip arthroplasty in Maffucci's syndrome. *Clin. Orthop. Rel. Res.*, **260**, 212–214
- Harris, H.E., Jr & Hawk, W.A. (1969) Laryngeal injection of teflon paste. Report of a case with postmortem study of the larynx. *Arch. Otolaryngol.*, **90**, 194–197
- Harrison, J.W., McLain, D.L., Hohn, R.B., Wilson, G.P., Chalman, J.A. & MacGowan, K.N. (1976) Osteosarcoma associated with metallic implants. Report of two cases in dogs. *Clin. Orthop. Rel. Res.*, **116**, 253–257

- Hartley, J.A., Gibson, N.W., Kilkenny, A. & Yuspa, S.H. (1987) Mouse keratinocytes derived from initiated skin or papillomas are resistant to DNA strand breakage by benzoyl peroxide: a possible mechanism for tumor promotion mediated by benzoyl peroxide. *Carcinogenesis*, **8**, 1827–1830
- Hartwig, A., Schlepegrell, R., Dally, H. & Hartmann, M. (1996) Interaction of carcinogenic metal compounds with deoxyribonucleic acid repair processes. *Ann. clin. Lab. Sci.*, **26**, 31–38
- Haslhofer, L. (1950) Two cases of late death after war injury. *Wien. klin. Wochenschr.*, **62**, 569–572 (in German)
- Haworth, S., Lawlor, T., Mortelmans, K., Speck, W. & Zeiger, E. (1983) Salmonella mutagenicity test results for 250 chemicals. *Environ. Mutagen.*, **5**, Suppl. 1, 3–142
- Hayman, J. & Huygens, H. (1983) Angiosarcoma developing around a foreign body. *J. clin. Pathol.*, **36**, 515–518
- Heath, J.C. (1954) Cobalt as a carcinogen. *Nature*, **173**, 822–823
- Heath, J.C. (1956) The production of malignant tumours by cobalt in the rat. *Br. J. Cancer*, **10**, 668–673
- Heath, J.C. & Daniel, M.R. (1962) The production of malignant tumours by cobalt in the rat: intrathoracic tumours. *Br. J. Cancer*, **16**, 473–478
- Heath, J.C., Freeman, M.A. & Swanson, S.A. (1971) Carcinogenic properties of wear particles from prostheses made of cobalt-chromium alloy. *Lancet*, **i**, 564–566
- Heil, J., Reifferscheid, G., Waldmann, P., Leyhausen, G. & Geurtsen, W. (1996) Genotoxicity of dental materials. *Mutat. Res.*, **368**, 181–194
- Heintz, N.H., Janssen, Y.M. & Mossman, B.T. (1993) Persistent induction of *c-fos* and *c-jun* expression by asbestos. *Proc. natl Acad. Sci. USA*, **90**, 3299–3303
- Heitmann, T. & Unterbrink, G. (1995) Direct pulp capping with a dentinal adhesive resin system: a pilot study. *Quint. Int.*, **26**, 765–770
- Hendrick, M.J., Goldschmidt, M.H., Shofer, F.S., Wang, Y.-Y. & Somloy, A.P. (1992) Post-vaccinal sarcomas in the cat: epidemiology and electron probe microanalytical identification of aluminum. *Cancer Res.*, **52**, 5391–5394
- Hendrick, M., Shofer, F., Goldschmidt, M., Haviland, J.C., Schelling, S.H., Engler, S.J. & Gliatto, J.M. (1994) Comparison of fibrosarcomas that developed at vaccination sites and at nonvaccination sites in cats: 239 cases (1991–1992). *J. Am. vet. Med. Assoc.*, **205**, 1425–1429
- Hensten-Pettersen, A. (1992) Casting alloys: side-effects. *Adv. dent. Res.*, **6**, 38–43
- Hensten-Pettersen, A. & Jacobsen, N. (1991) Perceived side effects of biomaterials in prosthetic dentistry. *J. prosthodont. Dent.*, **65**, 138–144
- Hester, T.R., Jr, Ford, N.F., Gale, P.J., Hammett, J.L., Raymond, R., Turnbull, D., Frankos, V.H. & Cohen, M.B. (1997) Measurement of 2,4-toluenediamine in urine and serum samples from women with Même or Replicon breast implants. *Plast. reconstruct. Surg.*, **100**, 1291–1298
- Hesterberg, T.W., Miller, W.C., Musselman, R.P., Kamstrup, O., Hamilton, R.D. & Thevenaz, P. (1996) Biopersistence of man-made vitreous fibers and crocidolite asbestos in the rat lung following inhalation. *Fundam. appl. Toxicol.*, **29**, 267–279

- Hierholzer, S. & Hierholzer, G. (1984) Metal allergy as a pathogenetic factor in bone infection following osteosynthesis. *Unfallheilkunde*, **87**, 1–6 (in German)
- Himmer, O., Lootvoet, L., Deprez, P., Monfort, L. & Ghosez, J.-P. (1991) Case report of angiosarcoma following total knee prosthesis. *Rev. Chir. orthop.*, **77**, 125–128 (in French)
- Hinsull, S.M., Bellamy, D., Franklin, A. & Watson B.W. (1979) The inhibitory influence of metal–plastic implant on cellular proliferation patterns in an experimental tumour compared with normal tissue. *Eur. J. Cancer*, **16**, 159–166
- Hizawa, K., Inaba, H., Nakanishi, S., Otsuka, H. & Izumi, K. (1984) Subcutaneous pseudosarcomatous polyvinylpyrrolidone granuloma. *Am. J. surg. Pathol.*, **8**, 393–398
- Holder, J.W., Elmore, E. & Barrett, J.C. (1993) Gap junction and cancer. *Cancer Res.*, **53**, 3475–3485
- Holley, J.A., Janssen, Y.M.W., Mossman, B.T. & Taatjes, D.J. (1992) Increased manganese superoxide dismutase protein in type II epithelial cells of rat lungs after inhalation of crocidolite asbestos or cristobalite silica. *Am. J. Pathol.*, **141**, 475–485
- Holmberg, S. (1992) Life expectancy after total hip arthroplasty. *J. Arthroplasty*, **7**, 183–186
- Holmstrup, P. (1991) Reactions of the oral mucosa related to silver amalgam: a review. *J. oral Pathol. Med.*, **20**, 1–7
- Holmstrup, P. (1999) Oral lichen planus. *Dtsch. Zahnärztl. Z.*, **54**, 10–14
- Homma, Y. & Oyasu, R. (1986) Transient and persistent hyperplasia in heterotopically transplanted rat urinary bladders induced by formalin and foreign bodies. *J. Urol.*, **136**, 136–140
- Hoopes, J.E., Edgerton, M.T., Jr & Sheeley, W. (1967) Organic synthetics for augmentation mammoplasty: their relation to breast cancer. *Plast. Reconstr. Surg.*, **39**, 263–270
- Horowitz, S.M., Luchetti, W.T., Gonzales, J.B. & Ritchie, C.K. (1998) The effects of cobalt chromium upon macrophages. *J. biomed. Mater. Res.*, **41**, 468–473
- Hörsted, P.B., Simonsen, A.-M. & Larsen, M.J. (1986) Monkey pulp reactions to restorative materials. *Scand. J. dent. Res.*, **94**, 154–163
- Hörsted-Bindslev, P. (1987) Monkey pulp reactions to cavities treated with Gluma Dentin Bond and restored with a microfilled composite. *Scand. J. dent. Res.*, **95**, 347–355
- Hsieh, C.-C. & Trichopoulos, D. (1991) Breast size, handedness and breast cancer risk. *Eur. J. Cancer*, **27**, 131–135
- Huaux, F., Louahed, J., Hudspith, B., Meredith, C., Delos, M., Renauld, J.-C. & Lison, D. (1998) Role of interleukin-10 in the lung response to silica in mice. *Am. J. respir. Cell mol. Biol.*, **18**, 51–59
- Hudson, L.D. (1987) Phototoxic reaction triggered by a new dental instrument. *Am. Acad. Dermatol.*, **17**, 508–509
- Hueper, H.C. (1952) Experimental studies in metal cancerogenesis. I. Nickel cancers in rats. *Texas Rep. Biol. Med.*, **16**, 167–186
- Hueper, H.C. (1955a) Experimental studies in metal cancerogenesis. VII. Tissue reactions to parenterally introduced powdered metallic chromium and chromite ore. *J. natl Cancer Inst.*, **16**, 447–462
- Hueper, H.C. (1955b) Experimental studies in metal cancerogenesis. IV. Cancer produced by parenterally introduced metallic nickel. *J. natl Cancer Inst.*, **16**, 55–67

- Hueper, H.C. (1958) Experimental studies in metal cancerogenesis. IV. Pulmonary lesions in guinea pigs and rats exposed to prolonged inhalation of powdered metallic nickel. *Arch. Pathol.*, **65**, 600–607
- Hueper, W.C. (1959) Carcinogenic studies on water-soluble and insoluble macromolecules. *Arch. Pathol.*, **67**, 589–617
- Hueper, W.C. (1960) Experimental production of cancer by means of implanted polyurethane plastic. *Am. J. clin. Pathol.*, **34**, 328–333
- Hueper, W.C. (1961) Carcinogenic studies on water-insoluble polymers. *Pathol. Microbiol.*, **24**, 77–106
- Hueper, W.C. (1964) Cancer induction by polyurethane and polysilicone plastics. *J. natl Cancer Inst.*, **33**, 1005–1027
- Hueper, H.C. & Payne, W.W. (1962) Experimental studies in metal cancerogenesis. Chromium, nickel, iron, arsenic. *Arch. environ. Health*, **5**, 445–462
- Hughes, A.W., Sherlock, D.A., Hamblen, D.L. & Reid, R. (1987) Sarcoma at the site of a single hip screw. A case report. *J. Bone Joint Surg.*, **69B**, 470–472
- Husgafvel-Pursiainen, K., Hackman, P., Ridanpää, M., Anttila, S., Karjalainen, A., Partanen, T., Taikina-aho, O., Heikkilä, L. & Vainio, H. (1993) K-ras mutations in human adenocarcinoma of the lung: association with smoking and occupational exposure to asbestos. *Int. J. Cancer*, **53**, 250–256
- Husgafvel-Pursiainen, K., Kannio, A., Oksa, P., Suitiala, T., Koskinen, H., Partanen, T., Hemminki, K., Smith, S., Rosenstock-Leibu, R. & Brandt-Rauf, P.W. (1997) Mutations, tissue accumulation, and serum levels of p53 in patients with occupational cancers from asbestos and silica exposure. *Environ. mol. Mutagen.*, **30**, 224–230
- IARC (1977) *IARC Monographs on the Evaluation of Carcinogenic Risk of Chemicals to Man*, Vol. 14, Asbestos, Lyon
- IARC (1979a) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*, Vol. 19, Some Monomers, Plastics and Synthetic Elastomers, and Acrolein, Lyon, pp. 377–438
- IARC (1979b) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*, Vol. 19, Some Monomers, Plastics and Synthetic Elastomers, and Acrolein, Lyon, pp. 187–211
- IARC (1979c) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*, Vol. 19, Some Monomers, Plastics and Synthetic Elastomers, and Acrolein, Lyon, pp. 41–71
- IARC (1980) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*, Vol. 23, Some Metals and Metallic Compounds, Lyon, pp. 325–415
- IARC (1986) *IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans*, Vol. 39, Some Chemicals Used in Plastics and Elastomers, Lyon
- IARC (1987a) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Suppl. 7, Overall Evaluations of Carcinogenicity: An Update of IARC Monographs Volumes 1 to 42, Lyon, pp. 106–116

- IARC (1987b) *IARC Monographs on the Evaluation of the Carcinogenic Risks of Chemicals to Humans*, Suppl. 7, *Overall Evaluations of Carcinogenicity: An Update of IARC Monographs Volumes 1 to 42*, Lyon, pp. 373–376
- IARC (1987c) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Suppl. 7, *Overall Evaluations of Carcinogenicity: An Update of IARC Monographs Volumes 1 to 42*, Lyon, pp. 230–232
- IARC (1987d) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Suppl. 6, *Genetic and Related Effects: An Update of Selected IARC Monographs Volumes 1 to 42*, Lyon, p. 203
- IARC (1988) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 43, *Man-Made Mineral Fibres and Radon*, Lyon, pp. 39–171
- IARC (1990a) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 49, *Chromium, Nickel and Welding*, Lyon, pp. 49–256
- IARC (1990b) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 49, *Chromium, Nickel and Welding*, Lyon, pp. 257–445
- IARC (1991) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 52, *Chlorinated Drinking-Water; Chlorination By-products; Some other Halogenated Compounds; Cobalt and Cobalt Compounds*, Lyon, pp. 363–472
- IARC (1993a) *IARC Monographs in the Evaluation of Carcinogenic Risks to Humans*, Vol. 58, *Beryllium, Cadmium, Mercury and Exposures in the Glass Manufacturing Industry*, Lyon, pp. 239–345
- IARC (1993b) *IARC Monographs in the Evaluation of Carcinogenic Risks to Humans*, Vol. 58, *Beryllium, Cadmium, Mercury and Exposures in the Glass Manufacturing Industry*, Lyon, pp. 119–237
- IARC (1993c) *IARC Monographs in the Evaluation of Carcinogenic Risks to Humans*, Vol. 58, *Beryllium, Cadmium, Mercury and Exposures in the Glass Manufacturing Industry*, Lyon, pp. 41–117
- IARC (1994a) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 60, *Some Industrial Chemicals*, Lyon, pp. 45–159
- IARC (1994b) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 60, *Some Industrial Chemicals*, Lyon, pp. 445–474
- IARC (1994c) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 59, *Hepatitis Viruses*, Lyon
- IARC (1994d) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 61, *Schistosomes, Liver Flukes and Helicobacter pylori*, Lyon, pp. 177–240
- IARC (1996) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 67, *Human Immunodeficiency Viruses and Human T-cell Lymphotropic Viruses*, Lyon, pp. 31–257
- IARC (1997a) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 68, *Silica, Some Silicates, Coal Dust and para-Aramid Fibrils*, Lyon, pp. 41–242

- IARC (1997b) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 69, *Polychlorinated Dibenzo-dioxins and Polychlorinated Dibenzofurans*, Lyon, pp. 33–243, 525–630
- IARC (1997c) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 70, *Epstein-Barr Virus and Kaposi's Sarcoma Herpesvirus/Human Herpesvirus*, Lyon, pp. 375–492
- IARC (1997d) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 68, *Silica, Some Silicates, Coal Dust and para-Aramid Fibrils*, Lyon, pp. 337–406
- IARC (1999a) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 71, *Re-evaluation of Some Organic Chemicals, Hydrazine and Hydrogen Peroxide*, Lyon, pp. 1181–1187
- IARC (1999b) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 71, *Re-evaluation of Some Organic Chemicals, Hydrazine and Hydrogen Peroxide*, Lyon, pp. 345–358
- IARC (2000) *IARC Monographs on the Evaluation of Carcinogenic Risks to Humans*, Vol. 75, *X- and  $\gamma$ -Radiation and Neutrons*, Lyon (in press)
- Iglesias, M.E., Vázquez Doval, F.J., Idoate, F., Valentí, J.R. & Quintanilla, E. (1994) Malignant fibrous histiocytoma at the site of total knee replacement (Letter to the Editor). *J. dermatol. Surg. Oncol.*, **20**, 846–849
- ILSI Risk Science Institute Workshop Consensus Report (2000) The relevance of the rat lung response to particle overload for human risk assessment: a workshop consensus report. *Inhal. Toxicol.*, **12** (in press)
- Imai, Y. & Masuhara, E. (1982) Long-term *in vivo* studies of poly(2-hydroxyethyl methacrylate). *J. biomed. Mater. Res.*, **16**, 609–617
- Imai, Y. & Watanabe, A. (1987) Tumorigenesis from polyurethane materials. *Jpn. J. artif. Organs*, **16**, 1329–1332
- Imai, Y., Watanabe, M., Lee, H.E., Kojima, K. & Kadoma, Y. (1988) Cytotoxicity of monomers used in dental resins. *Reports of the Institute for Medical & Dental Engineering*, **22**, 87–90 (in Japanese)
- Imai, K., Nakamura, M., Matsumoto, R. & Kokita, K. (1992) Cytotoxicity test using cell recovery test method—comparison with the conventional cell growth method. *Med. Biol.*, **125**, 109–112 (in Japanese)
- Inokoshi, S., Shimada, Y., Fujitani, M., Otsuki, M., Shono, T., Onoe, N., Morigami, M. & Takatsu, T. (1995) Monkey pulpal response to adhesively luted indirect resin composite inlays. *Oper. Dent.*, **20**, 111–118
- ISO (1998) *Annual Report of ISO/TC 194 for 1997* (Doc. ISO/TC 194 N 267), Pforzheim, International Organization for Standardization
- Ivankovic, S., Seller, W.J., Lehmann, E., Komitowski, D. & Frölich, N (1987) Different carcinogenicity of two nickel alloys following intratracheal administration in the hamster (Abstract No. 103). *Naunyn-Schmiedeberg Arch. Pharmacol.*, **335**, R26

- Ivankovic, S., Zeller, W.J., Komitowski, D., Edler, L., Lehmann, E. & Frölich, N. (1988) *Carcinogenese von Nickellegierungen beim Hamster nach intratrachealer Applikation* (Schriftenreihe der Bundesanstalt für Arbeitsschutz), Bremerhaven, Wirtschaftsverlag, p. 81
- Jackman, L.A. (1981) Metal treatments. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 325–345
- Jacobs, A.M. & Oloff, L.M. (1985) Podiatric metallurgy and the effects of implanted metals on living tissues. *Clin. Pediatr.*, **2**, 121–141
- Jacobs, J.J., Rosenbaum, D.H., Hay, R.M., Gitelis, J.S. & Black, J. (1992) Early sarcomatous degeneration near a cementless hip replacement. A case report and review. *J. Bone Joint Surg.*, **74B**, 740–744
- Jacobs, J.J., Skipor, A.K., Doorn, P.F., Campbell, P., Schmalzried, T.P., Black, J. & Amstutz, H. (1996) Cobalt and chromium concentrations in patients with metal on metal total hip replacements. *Clin. Orthop. rel. Res.*, **329** (Suppl.), S256–S263
- Jacobsen, N., Åsenden, R. & Hensten-Pettersen, A. (1991) Occupational health complaints and adverse patient reactions as perceived by personnel in public dentistry. *Comm. Dent. oral Epidemiol.*, **19**, 155–159
- James, S.J., Pogribna, M., Miller, B.J., Bolon, B. & Muskhelishvili, L. (1997) Characterization of cellular response to silicone implants in rats: implications for foreign-body carcinogenesis. *Biomaterials*, **18**, 667–675
- Janssen, Y.M.W., Marsh, J.P., Absher, M.P., Hemenway, D., Vacek, P.M., Leslie, K.O., Borm, P.J.A. & Mossman, B.T. (1992) Expression of antioxidant enzymes in rat lungs after inhalation of asbestos or silica. *J. biol. Chem.*, **267**, 10625–10630
- Janssen, Y.M.W., Driscoll, K.E., Howard, B., Quinlan, T.R., Treadwell, M., Barchowsky, A. & Mossman, B.T. (1997) Asbestos causes translocation of p65 protein and increases NF-κB DNA binding activity in rat lung epithelial and pleural mesothelial cells. *Am. J. Pathol.*, **151**, 389–401
- Jasmin, G. & Riopelle, J.L. (1976) Renal carcinomas and erythrocytosis in rats following intra-renal injection of nickel subsulfide. *Lab. Invest.*, **35**, 71–78
- Jaurand, M.-C. (1996) Use of in-vitro genotoxicity and cell transformation assays to evaluate the potential carcinogenicity of fibres. In: Kane, A.B., Boffetta, P., Saracci, R. & Wilbourn, J.D., eds, *Mechanisms of Fibre Carcinogenesis* (IARC Scientific Publications No. 140), Lyon, IARC, pp. 55–72
- Jeffery, J.A. & McCullough, C.J. (1995) Metastasis as a cause of pain following total hip arthroplasty. A case report. *Today's O.R. Nurse*, **17**, 41–42
- Jennings, T.A., Peterson, L., Axiotis, C.A., Friedlaender, G.E., Cooke, R.A. & Rosai, J. (1988) Angiosarcoma associated with foreign body material. A report of three cases. *Cancer*, **62**, 2436–2444
- Jensen, C.G., Jensen, L.C.W., Reider, C.L., Cole, R.W. & Ault, J.G. (1996) Long crocidolite asbestos fibers cause polyploidy by sterically blocking cytokinesis. *Carcinogenesis*, **17**, 2013–2021

- Jesch, N.K., Dörger, M., Enders, G., Reider, G., Vogelmeier, C., Messmer, K. & Krombach, F. (1997) Expression of inducible nitric oxide synthase and formation of nitric oxide by alveolar macrophages: an interspecies comparison. *Environ. Health Perspect.*, **105** (Suppl. 4), 1297–1300
- Johnson, N.F. & Hahn, F.F. (1996) Induction of mesothelioma after intrapleural inoculation of F344 rats with silicon carbide whiskers or continuous ceramic filaments. *Occup. environ. Med.*, **53**, 813–816
- Johnson, K.H., Ghobrial, H.K.G., Buoen, L.C., Brand, I. & Brand, K.G. (1973a) Nonfibroblastic origin of foreign body sarcomas implicated by histological and electron microscopic studies. *Cancer Res.*, **33**, 3139–3154
- Johnson, K.H., Ghobrial, H.K.G., Buoen, L.C., Brand, I. & Brand, K.G. (1973b) Intracisternal type A particles occurring in foreign body-induced sarcomas. *Cancer Res.*, **33**, 1165–1168
- Johnson, K.H., Buoen, L.C., Brand, I. & Brand, K.G. (1977) Light-microscopic morphology of cell types cultured during preneoplasia from foreign body-reactive tissues and films. *Cancer Res.*, **37**, 3228–3237
- Johnson, K.H., Ghobrial, H.K.G., Buoen, L.C., Brand, I. & Brand, K.G. (1980) Ultrastructure of cell types cultured during preneoplasia from implant surfaces and foreign-body-reactive tissues in mice. *J. natl Cancer Inst.*, **64**, 1383–1392
- Johnston, R.B., Jr & Kitagawa, S. (1985) Molecular basis for the enhanced respiratory burst of activated macrophages. *Fed. Proc.*, **44**, 2927–2932
- Jones, A.J., Denning, N.T. & Sharp, D.J. (1991) *Biomaterials: Materials for Medical Devices*, Canberra, Department of Industry, Technology and Commerce, pp. 13–20, 174–177
- Jontell, M., Hanks, C.T., Bratel, J. & Bergenholz, G. (1995) Effects of unpolymerized resin components on the function of accessory cells derived from the rat incisor pulp. *J. dent. Res.*, **74**, 1162–1167
- Jorgenson, D.S., Centeno, J.A., Mayer, M.H., Topper, M.J., Nossov, P.C., Mullick, F.G. & Manson, P.N. (1999) Biologic response to passive dissolution of titanium craniofacial microplates. *Biomaterials*, **20**, 675–682
- Ju, D.M.C. (1966) Fibrosarcoma arising in surgical scars. *Plast. reconstr. Surg.*, **38**, 429–437
- Judde, J.G., Breillout, F., Clemenceau, C., Poupon, M.F. & Jasmin, C. (1987) Inhibition of rat natural killer cell function by carcinogenic nickel compounds: preventive action of manganese. *J. natl Cancer Inst.*, **78**, 1185–1190
- Kahn, D.G. & Blazina, M.E. (1993) Incidental metastatic mammary carcinoma in a total knee arthroplasty patient. *Clin. Orthop. rel. Res.*, **295**, 142–145
- Kala, S.V., Lykissa, E.D. & Lebovitz, R.M. (1997) Detection and characterization of poly(dimethylsiloxane)s in biological tissues by GA/AED and GC/MS. *Anal. Chem.*, **69**, 1267–1272
- Kallus, T. (1984) Evaluation of the toxicity of denture base polymers after subcutaneous implantation in guinea pigs. *J. prosthet. Dent.*, **52**, 126–134
- Kallus, T. & Mjör, I.A. (1991) Incidence of adverse effects of dental materials. *Scand. J. dent. Res.*, **99**, 236–240
- Kanaar, P. & Oort, J. (1969) Fibrosarcomas developing in scar-tissue. *Dermatologica*, **138**, 312–319

- Kane, A.B. (1996a) Mechanisms of mineral fibre carcinogenesis. In: Kane, A.B., Boffetta, P., Saracci, R. & Wilbourn, J.D., eds, *Mechanisms of Fibre Carcinogenesis* (IARC Scientific Publications No. 140), Lyon, IARC, pp. 11–34
- Kane, A.B. (1996b) Questions and controversies about the pathogenesis of silicosis. In: Castranova, V., Vallyathan, V. & Wallace, W.E., eds, *Silica and Silica-induced Lung Diseases*, Boca Raton, FL, CRC Press, pp. 121–136
- Kane, A.B. (1998) Animal models of malignant mesothelioma. In: Rom, W.N., ed., *Environmental and Occupational Medicine*, 3rd Ed., Philadelphia, Lippincott-Raven, pp. 377–387
- Kane, A.B., Boffetta, P., Saracci, R. & Wilbourn, J.D., eds (1996) *Mechanisms of Fibre Carcinogenesis* (IARC Scientific Publications No. 140), Lyon, IARC
- Kane, A.B., Macdonald, J.L. & Vaslet, C.A. (1997) Regulation of mesothelial cell proliferation in vitro and in vivo. In: Dungworth, D.L., Adler, K.B., Harris, C.C. & Plopper, C.G., eds, *Correlations Between In Vitro and In Vivo Investigations in Inhalation Toxicology*, Washington DC, ILSI Press, pp. 163–171
- Kanerva, L., Estlander, T. & Jolanki, R. (1995) Dental problems. In: Guin, J.D., ed., *Practical Contact Dermatitis*, New York, McGraw-Hill, pp. 397–432
- Kang, H., Enziger, F., Breslin, P., Feil, M., Lee, Y. & Shepard, B. (1987) Soft tissue sarcoma and military service in Vietnam: a case-control study. *J. natl Cancer Inst.*, **79**, 693–699
- Kaplan, R.P. (1987) Cancer complicating chronic ulcerative and scarifying mucocutaneous disorders. *Adv. Dermatol.*, **2**, 19–46
- Kappert, H.F., Mau, J., Pfeiffer, P., Richter, G., Schneider, S., Schwickerath, H. & Siebert, G.K. (1998) *Verträglichkeit von Dentallegierungen unter besonderer Berücksichtigung ‘alternativer’ Verfahren zur Diagnostik*, Institut der Deutschen Zahnärzte, Köln, Deutscher Ärzte-Verlag
- Karp, R.D., Johnson, K.H., Buoen, L.C., Ghobrial, H.K.G., Brand, I. & Brand, K.G. (1973) Tumorigenesis by Millipore filters in mice: histology and ultrastructure of tissue reactions as related to pore size. *J. natl Cancer Inst.*, **51**, 1275–1285
- Kass, P., Barnes, W., Spangler, W., Chomel, B. & Culbertson, M. (1993) Epidemiologic evidence for a causal relation between vaccination and fibrosarcoma tumorigenesis in cats. *J. Am. vet. Med. Assoc.*, **203**, 396–405
- Katabami, M., Dosaka-Akita, H., Honma, K., Kimura, K., Fujino, M., Uchida, Y., Mikami, H., Ohsaki, Y., Kawakami, Y. & Kikuchi, K. (1998) p53 and Bcl-2 expression in pneumoconiosis-related pre-cancerous lesions and lung cancers: frequent and preferential p53 expression in pneumoconiotic bronchiolar dysplasias. *Int. J. Cancer*, **75**, 504–511
- Kathren, R.L., McInroy, J.F., Moore, R.H. & Dietert, S.E., (1989) Uranium in the tissues of an occupationally exposed individual. *Health Phys.*, **57**, 17–21
- Katzner, M. & Schvingt, E. (1983) Complications of a total hip prosthesis revealing a renal cell carcinoma. *Arch. orthop. Trauma Surg.*, **102**, 126–127
- Kawai, K., Yamamoto, M., Kameyama, S., Kawamata, H., Rademaker, A. & Oyasu, R. (1993) Enhancement of rat urinary bladder tumorigenesis by lipopolysaccharide-induced inflammation. *Cancer Res.*, **53**, 5172–5175

- Kawai, A., Woodruff, J., Healey, J.H., Brennan, M.F., Antonescu, C.R. & Ladanyi, M. (1998) SYT-SSX gene fusion as a determinant of morphology and prognosis in synovial sarcoma. *New Engl. J. Med.*, **338**, 153–160
- Keller (1938) *Haemangioendotheliom*, Thesis, Tübingen
- Kelly, E.J. (1982) Electrochemical behavior of titanium. *Mod. Aspect. Electrochem.*, **14**, 319–424
- Kelly, K.M., Womer, R.B., Sorensen, P.H.B., Xiong, Q.-B. & Barr, F.G. (1997) Common and variant gene fusions predict distinct clinical phenotypes in rhabdomyosarcoma. *J. clin. Oncol.*, **15**, 1831–1836
- Kennedy, A.L., Wilson, T.R., Stock, M.F., Alarie, Y. & Brown, W.E. (1994) Distribution and reactivity of inhaled <sup>14</sup>C-labelled toluene diisocyanate (TDI) in rats. *Arch. Toxicol.*, **68**, 434–443
- Kern, K.A., Flannery, J.T. & Kuehn, P.G. (1997) Carcinogenic potential of silicone breast implants: a Connecticut statewide study. *Plast. Reconstr. Surg.*, **100**, 737–747
- Kernohan, J. & Hall, A.J. (1985) Case report 297. *Skeletal Radiol.*, **13**, 77–79
- Keruso, H., Moe, G. & Hensten-Pettersen, A. (1997) Salivary nickel and chromium in subjects with different types of fixed orthodontic appliances. *Am. J. Orthod. Dentofac. Orthop.*, **111**, 595–598
- Khurana, J.S., Rosenberg, A.E., Kattapuram, S.V., Fernandez, O.S. & Ehara, S. (1991) Maligancy supervening on an intramedullary nail. *Clin. Orthop. Rel. Res.*, **267**, 251–254
- Kilpatrick, S.E., Koplay, P., Pope, T.L., Jr & Ward, W.G. (1997) Clinical radiologic and pathologic spectrum of myositis ossificans and related lesions: a unifying concept. *Adv. Anat. Pathol.*, **4**, 277–286
- Kim, Y.-H. & Yun, Y.-H. (1986) Metastasis of lung carcinoma to proximal femur after hip implant. *Orthop. Rev.*, **15**, 91–96
- Kine, B.B. (1981) Methacrylic polymers. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 377–398
- Kinoshita, Y., Kuzuhara, T., Kirigakubo, M., Kobayashi, M., Shimura, K. & Ikada, Y. (1993) Reduction in tumour formation on porous polyethylene by collagen immobilization. *Biomaterials*, **14**, 546–550
- Kitchen, S.B., Paletta, C.E., Shehadi, S.I. & Bauer, W.C. (1994) Epithelialization of the lining of a breast implant capsule. Possible origin of squamous cell carcinoma associated with a breast implant capsule. *Cancer*, **73**, 1449–1452
- Klärner, P. (1962) Production of sarcomas by foreign bodies made of polymethacrylates and additives. *Z. Krebsforsch.*, **65**, 99–100 (in German)
- Knecht, C.D. & Priester, W.A. (1978) Osteosarcoma in dogs: a study of previous trauma, fracture, and fracture fixation. *J. Am. anim. Hosp. Assoc.*, **14**, 82–84
- Knittel, D. (1983) Titanium and titanium alloys. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 23, 3rd Ed., New York, John Wiley, pp. 98–130
- Knutson, K., Lewold, S., Robertsson, O. & Lidgren, L. (1994) The Swedish knee arthroplasty register. A nation-wide study of 30,003 knees 1976–1992. *Acta orthop. scand.*, **65**, 375–386

- Ko, C., Ahn, C.Y. & Markowitz, B.L. (1995) Injected liquid silicone, chronic mastitis, and undetected breast cancer. *Ann. plast. Surg.*, **34**, 176–179
- Kochhar, R.K. & Kissin, Y.V. (1981) Polymers of higher olefins. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 16, 3rd Ed., New York, John Wiley, pp. 470–479
- Koda, T., Tsuchiya, H., Yamauchi, M., Ohtani, S., Takagi, N. & Kawano, J. (1990) Leachability of denture-base acrylic resins in artificial saliva. *Dent. Mater.*, **6**, 13–16
- Kogan, A.H. & Tugarinova, V.N. (1959) On the blastomogenic action of polyvinyl chloride. *Vop. Onkol.*, **5**, 540–545 (in Russian)
- Kohn, H. & Langer, R. (1996) Bioresorbable and bioerodible materials. In: Ratner, B.D., Hoffman, A.S., Schoen, F.J. & Lemons, J.E., eds, *Biomaterials Science: An Introduction to Materials in Medicine*, San Diego, Academic Press, pp. 64–73
- Kolstadt, K. & Höglstorp, H. (1990) Gastric carcinoma metastasis to a knee with a newly inserted prosthesis. A case report. *Acta orthop. scand.*, **61**, 369–370
- Kopas, Mr (1929) Testicular sarcoma after trauma. *Zentralblatt. Chir.*, **56**, 83–84 (in German)
- Korhonen, A., Hemminki, K. & Vainio, H. (1984) Embryotoxic effects of eight organic peroxides and hydrogen peroxide on three-day chicken embryos. *Environ. Res.*, **33**, 54–61
- Krevet, Dr (1888) New sarcomatous growth in fistula 15 years after gunshot injury with retention of the bullet. *Dtsch. Militärärztl. Z.*, **17**, 241–248 (in German)
- Krutenat, R.C. (1981) Metallic coatings. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 241–274
- Kulesh, D.A. & Greene, J.J. (1986) Shape-dependent regulation of proliferation in normal and malignant human cells and its alteration by interferon. *Cancer Res.*, **46**, 2793–2797
- Kumar, K. (1996) Osteosarcoma associated with a metal implant. *Int. Orthop. (SICOT)*, **20**, 335–336
- Kunze, P. (1965) Carcinogenesis after war injuries. *Arch. Geschwulstforsch.*, **25**, 97–117 (in German)
- Kuo, T.T., Hu, S., Huang, C.L., Chan, H.L., Chang, M.J., Dunn, P. & Chen, Y.J. (1997) Cutaneous involvement in polyvinylpyrrolidone storage disease: a clinicopathologic study of five patients, including two patients with severe anemia. *Am. J. surg. Pathol.*, **21**, 1361–1367
- Kurpat, D. & Baudrexel, A. (1971) Bullet foreign-body in the lung and scirrhous carcinoma. *Z. Chir.*, **18**, 608–617 (in German)
- Kydd, W.L. & Sreebny, L.M. (1960) Potential oncogenic properties of high polymers in mice. *J. natl Cancer Inst.*, **25**, 749–751
- Lai, F.M.-M. & Lam, W.Y. (1993) Nodular fasciitis of the dermis. *J. cutan. Pathol.*, **20**, 66–69
- Lamovec, J., Zidar, A. & Cucek-Plenicar, M. (1988) Synovial sarcoma associated with total hip replacement. A case report. *J. Bone Joint Surg.*, **70A**, 1558–1560
- Lanam, R.D. & Zysk, E.D. (1982) Platinum-group metals. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 228–253

- Langkamer, V.G., Case, C.P., Collins, C., Watt, I., Dixon, J., Kemp, A.J. & Atkins, R.M. (1997) Tumors around implants. *J. Arthroplasty*, **12**, 812–818
- Laskin, D.M., Robinson, I.B. & Weinman, J.P. (1954) Experimental production of sarcomas by methylmethacrylate implants. *Proc. Soc. exp. Biol. Med.*, **87**, 329–332
- Laskin, S., Drew, R.T., Cappiello, V.P. & Kuschner, M. (1972) Inhalation studies with freshly generated polyurethane foam dust. In: Mercer, T.T., ed., *Assessment of Airborne Particles, Fundamentals, Applications and Implications to Inhalation Toxicity*, Springfield, IL, C.C. Thomas, pp. 382–404
- Laskin, W.B., Silverman, T.A. & Enzinger, F.M. (1988) Postradiation soft tissue sarcomas. An analysis of 53 cases. *Cancer*, **62**, 2330–2340
- Lauer, D.H. & Enzinger, F.M. (1980) Cranial fasciitis of childhood. *Cancer*, **45**, 401–406
- Lavorgna, J.J., Burstein, N.A., Schiller, A.L. & Harris, W.H. (1972) The carcinogenesis of plastics used in orthopedic surgery. *Clin. Ortho. rel. Res.*, **88**, 223–227
- Lechner, J.F., Tesfaigzi, J. & Gerwin, B.I. (1997) Oncogenes and tumor-suppressor genes in mesothelioma—a synopsis. *Environ. Health Perspect.*, **105** (Suppl. 5), 1061–1067
- Lee, Y.-S., Pho, R.W.H. & Nather, A. (1984) Malignant fibrous histiocytoma at site of metal implant. *Cancer*, **54**, 2286–2289
- Lee, E.S., Locker, J., Nalesnik, M., Reyes, J., Jaffe, R., Alashari, M., Nour, B., Tzakis, A. & Dickman, P.S. (1995) The association of Epstein–Barr virus with smooth–muscle tumors occurring after organ transplantation. *New Engl. J. Med.*, **332**, 19–25
- Lee, B.W., Wain, J.C., Kelsey, K.T., Wiencke, J.K. & Christiani, D.C. (1998) Association of cigarette smoking and asbestos exposure with location and histology of lung cancer. *Am. J. respir. crit. Care Med.*, **157**, 748–755
- Lehmann, F., Leyhausen, G., Spahl, W. & Geurtsen, W. (1993) Comparative cell culture studies of the cytotoxicity of composite resin components. *Dtsch. Zahnärztl. Z.*, **48**, 651–653 (in German)
- Leicher, H. (1950) Development of a malignant tumour with a long latency. *Z. Laryngol. Rhinol. Otol.*, **29**, 557–564 (in German)
- Leinfelder, K.F. (1988) Posterior composit resins. *J. Am. dent. Assoc.*, **117**, 21–26
- Lenz, R.W. (1989) Polymerization mechanisms and processes. In: Grayson, M., Mark, H.F., Othmer, D.F. & Othmer, D.F., eds, *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 933–934
- Lester, S., Clemett, T.Y. & Burt, A. (1996) Vaccine site-associated sarcomas in cats: clinical experience and a laboratory review (1982–1993). *J. Am. anim. Hosp. Assoc.*, **32**, 91–95
- Levresse, V., Renier, A., Fleury-Feith, J., Levy, F., Moritz, S., Vivo, C., Pilatte, Y. & Jaurand, M.-C. (1997) Analysis of cell cycle disruptions in cultures of rat pleural mesothelial cells exposed to asbestos fibers. *Am. J. respir. Cell mol. Biol.*, **17**, 660–671
- Lewis, C.M. (1980) Inflammatory carcinoma of the breast following silicone injections. *Plast. reconstr. Surg.*, **66**, 134–136
- Lewis, C.G., Belniak, R.M., Plowman, M.C., Hopfer, S.M., Knight, J.A. & Sunderman, F.W., Jr (1995) Intraarticular carcinogenesis bioassays of CoCrMo and TiAlV alloys in rats. *J. Arthroplasty*, **10**, 75–82

- Lewold, S., Olsson, H., Gustafson, P., Rydholm, A. & Lidgren, L. (1996) Overall cancer incidence not increased after prosthetic knee replacement: 14,551 patients followed for 66,622 person-years. *Int. J. Cancer*, **68**, 30–33
- Leyhausen, G., Heil, J., Reifferscheid, G. & Geurtsen, W. (1995) The genotoxic potential of resin components. *Dtsch. Zahnärztl. Z.*, **50**, 134–136 (in German)
- Li, Y., Noblitt, T.W., Dunipace, A.J. & Stookey, G.K. (1990) Evaluation of mutagenicity of restorative dental materials using the Ames Salmonella/microsome test. *J. dent. Res.*, **69**, 1188–1192
- Li, X.Q., Hom, D.L., Black, J. & Stevenson, S. (1993) Relationship between metallic implants and cancer: A case-control study in a canine population. *Vet. comp. Orthop. Traumatol.*, **6**, 70–74
- Liczkowski, B. & Barnbeck, F. (1984) Breast carcinoma in pacemaker patients. *Zentralbl. Chir.*, **109**, 880–881 (in German)
- Lilla, J.A. & Vistnes, L.M. (1976) Long-term study of reactions to various silicone breast implants in rabbits. *Plastic reconstr. Surg.*, **57**, 637–649
- Lind, P.O. (1988) Oral lichenoid reactions related to composite restorations. *Acta odontol. scand.*, **46**, 63–65
- Lindeman, G., McKay, M.J., Taubman, L.K. & Bilous, A.M. (1990) Malignant fibrous histiocytoma developing in bone 44 years after shrapnel trauma. *Cancer*, **66**, 2229–2232
- Linden, M.A., Marton, W.I., Stewart, R.M., Thal, E.R. & Feit, W. (1982) Lead poisoning from retained bullets. Pathogenesis, diagnosis, and management. *Ann. Surg.*, **195**, 305–313
- Liu, J.-Y., Morris, G.F., Lei, W.-H., Corti, M. & Brody, A.R. (1996) Up-regulated expression of transforming growth factor- $\alpha$  in the bronchiolar-alveolar duct regions of asbestos-exposed rats. *Am. J. Pathol.*, **149**, 205–217
- Liu, C., Wang, W., Shen, W., Chen, T., Hu, L. & Chen, Z. (1997) Evaluation of the biocompatibility of a nonceramic hydroxyapatite. *J. Endodontics*, **23**, 490–493
- Lloyd, T.B. & Showak, W. (1984) Zinc and zinc alloys. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 24, 3rd Ed., New York, John Wiley, pp. 807–851
- Löwenthal, C. (1895) Traumatic origin of a tumour. *Langenbecks Arch. klin. Chir.*, **49**, 335–352 (in German)
- Lucas, D.R., Shroyer, K.R., McCarthy, P.J., Markham, N.E., Fujita, M. & Enomoto, T.E. (1997) Desmoid tumor is a clonal cellular proliferation: PCR amplification of HUMARA for analysis of patterns of X-chromosome inactivation. *Am. J. surg. Pathol.*, **21**, 306–311
- Luckow, Dr (1933) Lung carcinoma following fragment in the lung 14 years after injury. *Z. ärztl. Fortbild.*, **30**, 702–703 (in German)
- Luke, J.L., Kalasinsky, V.F., Turnicky, R.P., Centeno, J.A., Johnson, F.B. & Mullick, F.G. (1997) Pathological and biophysical findings associated with silicone breast implants: A study of capsular tissues from 86 cases. *Plast. reconstr. Surg.*, **100**, 1558–1565
- Luster, M.I. (1993) *Immunotoxicity of Silicone in Female B6C3F1 Mice—180 Day Exposure* (Report to NTP, Protocol SIL-180-1-SC), Washington DC, US Department of Health and Human Services

- Luu, H.-M., Hutter, J.C. & Bushar, H.F. (1998) A physiologically based pharmacokinetic model for 2,4-toluenediamine leached from polyurethane foam-covered breast implants. *Environ. Health Perspect.*, **106**, 393–400
- Lykissa, E.D., Kala, S.V., Hurley, J. & Lebovitz, R.M. (1997) Release of low molecular weight silicones and platinum from breast gel implants. *Anal. Chem.*, **69**, 4912–4916
- Macdonald, J.L. & Kane, A.B. (1997) Mesothelial cell proliferation and biopersistence of wollastonite and crocidolite asbestos fibers. *Fundam. appl. Toxicol.*, **38**, 173–183
- Macdonald, P., Plavac, N., Peters, W., Lugowski, S. & Smith, D. (1995) Failure of  $^{29}\text{Si}$  NMR to detect increased blood silicon levels in silicone gel breast implant recipients. *Anal. Chem.*, **67**, 3799–3801
- Machle, W. (1940) Lead absorption from bullets lodged in tissues. *J. Am. med. Assoc.*, **115**, 1536–1541
- Maddox, A., Schoenfeld, A., Sinnett, H.D. & Shousha, S. (1993) Breast carcinoma occurring in association with silicone augmentation. *Histopathology*, **23**, 379–382
- Madewell, B.R., Pool, R.R. & Leighton, R.L. (1977) Osteogenic sarcoma at the site of a chronic nonunion fracture and internal fixation device in a dog. *J. Am. vet. Med. Assoc.*, **171**, 187–189
- Maekawa, A., Ogiu, T., Onodera, H., Furuta, K., Matsuoka, C., Ohno, Y., Tanigawa, H., Salmo, G.S., Matsuyama, M. & Hayashi, Y. (1984) Foreign-body tumorigenesis in rats by various kinds of plastics—induction of malignant fibrous histiocytomas. *J. toxicol. Sci.*, **9**, 263–272
- Magilligan, D.J., Jr & Isshak, G. (1980) Carcinoma of the breast in a pacemaker pocket—simple recurrence or oncotaxis? *PACE*, **3**, 220–223
- Magos, L. (1994) Lead poisoning from retained lead projectiles. A critical review of case reports. *Hum. exp. Toxicol.*, **13**, 735–742
- Maier, W. & Beck, C. (1992) Laryngeal cancer following gunshot injury and paraffin injection. *Laryngo-Rhino-Otol.*, **71**, 83–85 (in German)
- Malchau, H. & Herberts, P. (1998) Prognosis of total hip replacement. Revision and re-revision rate in THR. A revision-risk study of 148,359 primary operations. In: *61<sup>st</sup> annual meeting of the American Academy of Orthopaedic Surgeons, February 22–26, 1996, Atlanta, USA, Göteborg, The National Hip Arthroplasty Register*
- Malchau, H., Herberts, P. & Ahnfelt, L. (1993) Prognosis of total hip replacement. Follow-up on 92,675 operations performed 1978–1990. *Acta orthop. scand.*, **64**, 497–506
- Malone, K.E., Stanford, J.L., Daling, J.R. & Voigt, L.F. (1992) Implants and breast cancer (Letter to the Editor). *Lancet*, **339**, 1365
- Mannick, E.E., Bravo, L.E., Zarama, G., Realpe, J.L., Zhang, X.-J., Ruiz, B., Fonham, E.T.H., Mera, R., Miller, M.J.S. & Correa, P. (1996) Inducible nitric oxide synthase, nitrotyrosine, and apoptosis in *Helicobacter pylori* gastritis: effect of antibiotics and antioxidants. *Cancer Res.*, **56**, 3238–3243
- Manton, W.I. & Thal, E.R. (1986) Lead poisoning from retained missiles. An experimental study. *Ann. Surg.*, **204**, 594–599
- Marcus, D.M. (1996) An analytical review of silicone immunology. *Arthritis Rheum.*, **39**, 1619–1626

- Mark, R.J., Poen, J., Tran, L.M., Fu, Y.S., Selch, M.T. & Parker, R.G. (1994) Postirradiation sarcomas. A single-institution study and review of the literature. *Cancer*, **73**, 2653–2662
- Martin, A., Bauer, T.W., Manley, M.T. & Marks, K.E. (1988) Osteosarcoma at the site of total hip replacement. A case report. *J. Bone Joint Surg.*, **70A**, 1561–1567
- Mathiesen, E.B., Ahlbom, A., Bermann, G. & Lindgren, J.U. (1995) Total hip replacement and cancer. A cohort study. *J. Bone Joint Surg.*, **77B**, 345–350
- May, O. (1937) Sarcoma of the forearm after war injury. *Zentralbl. Chir.*, **64**, 1889–1894 (in German)
- May, D.S. & Stroup, N.E. (1991) The incidence of sarcomas of the breast among women in the United States, 1973–1986. *Plast. Reconstr. Surg.*, **87**, 193–194
- Mayall, F.G., Goddard, H. & Gibbs, A.R. (1992) p53 immunostaining in the distinction between benign and malignant mesothelial proliferations using formalin-fixed paraffin sections. *J. Pathol.*, **168**, 377–381
- Mazabraud, A., Florent, J. & Laurent, M. (1989) A case of epidermoid carcinoma developed in contact with a hip prosthesis. *Bull. Cancer*, **76**, 573–581 (in French)
- McCarthy, T.J., Hayes, E.P., Schwartz, C.S. & Witz, G. (1994) The reactivity of selected acrylate esters toward glutathione and deoxyribonucleosides *in vitro*: structure–activity relationships. *Fund. Appl. Toxicol.*, **22**, 543–548
- McCarthy, P.E., Hedlund, C.S., Veazy, R.S., Prescott-Mathews, J. & Cho, D.Y. (1996) Liposarcoma associated with a glass foreign body in a dog. *J. Am. vet. med. Assoc.*, **209**, 612–614
- McCarthy, S.J., Meijs, G.F., Mitchell, N., Gunatillake, P.A., Heath, G., Brandwood, A. & Schindhelm, K. (1997) In-vivo degradation of polyurethanes: transmission-FTIR microscopic characterisation of polyurethanes sectioned by cryomicrotomy. *Biomaterials*, **18**, 1387–1409
- McClain, K.L., Leach, C.T., Jenson, H.B., Joshi, V.V., Pollock, B.H., Parmley, R.T., DiCarlo, F.J., Chadwick, E.G. & Murphy, S.B. (1995) Association of Epstein–Barr virus with leiomyosarcomas in children with AIDS. *New Engl. J. Med.*, **332**, 12–18
- McDonald, I. (1981) Malignant lymphoma associated with internal fixation of a fractured tibia. *Cancer*, **48**, 1009–1011
- McDougall, A. (1956) Malignant tumour at site of bone plating. *J. Bone Joint Surg.*, **38B**, 709–713
- McElfresh, E. (1991) History of arthroplasty. In: Petty, W., ed., *Total Joint Replacement*, Philadelphia, W.B. Saunders, pp. 3–18
- McInnes-Ledoux, P., Cleaton-Jones, P.E. & Austin, J.C. (1985) The pulpal response to dilute citric acid smear removers. *J. oral Rehabil.*, **12**, 215–228
- McKellop, H., Park, S.-H., Chiesa, R., Doorn, P., Lu, B., Normand, P., Grigoris, P. & Amstutz, H. (1996) In vivo wear of 3 types of metal on metal hip prostheses during 2 decades of use. *Clin. Orthop. Rel. Res.*, **329** (Suppl.), S128–S140
- McLaughlin, J.K., Fraumeni, J.F., Jr, Olsen, J. & Mellemkjaer, L. (1994) Re: Breast implants, cancer and systemic sclerosis (Letter to the Editor). *J. natl Cancer Inst.*, **86**, 1424

- McLaughlin, J.K., Olsen, J.H., Friis, S., Mellemkjaer, L. & Fraumeni, J.F., Jr (1995a) Re: Breast implants, cancer, and systemic sclerosis (Letter to the Editor). *J. natl Cancer Inst.*, **87**, 1415–1416
- McLaughlin, J.K., Fraumeni, J.F., Jr, Nyren, O. & Adami, H.-O. (1995b) Silicone breast implants and risk of cancer? (Letter to the Editor). *J. Am. Med. Assoc.*, **273**, 116
- McLaughlin, J.K., Nyrén, O., Blot, W.J., Yin, L., Josefsson, S., Fraumeni, J.F., Jr & Adami, H.-O. (1998) Cancer risk among women with cosmetic breast implants: a population-based cohort study in Sweden. *J. natl Cancer Inst.*, **90**, 156–158
- McQueen, D., Sundgren, J.-E., Ivarsson, B., Lundström, I., af Ekenstrom B., Svensson, A., Bränemark, P.-I., & Albrektsson, T. (1982) Auger electroscopic studies of titanium implants. In: Lee, A.I.C., Albrektsson, T. & Bränemark, P.-I., eds, *Clinical Application of Biomaterials*, New York, John Wiley, pp. 179–185
- Meachim, G., Pedley, R.B. & Williams, D.F. (1982) A study of sarcogenicity associated with Co-Cr-Mo particles implanted in animal muscle. *J. biomed. Mat. Res.*, **16**, 407–416
- Meis, J.M. & Enzinger, F.M. (1991) Inflammatory fibrosarcoma of the mesentery and retroperitoneum. A tumor closely simulating inflammatory pseudotumor. *Am. J. surg. Pathol.*, **15**, 1146–1156
- Meis, J.M. & Enzinger, F.M. (1992) Proliferative fasciitis and myositis of childhood. *Am. J. surg. Pathol.*, **16**, 364–372
- Meister, P., Bückmann, F.W. & Konrad, E. (1978) Nodular fasciitis (analysis of 100 cases and review of the literature). *Pathol. Res. Pract.*, **162**, 133–165
- Melzner, E. (1927) On sarcoma development following war injuries. *Langenbecks Arch. Klin.*, **147**, 153–161 (in German)
- Memoli, V.A., Urban, R.M., Alroy, J. & Galante, J.O. (1986) Malignant neoplasms associated with orthopedic implant materials in rats. *J. orthoped. Res.*, **4**, 346–355
- Menard, S. & Della Porta, G. (1976) Incidence, growth and antigenicity of fibrosarcomas induced by Teflon disc in mice. *Tumori*, **62**, 565–573
- Mendez-Fernandez, M.A., Henly, W.S., Geis, R.C., Schoen, F.J. & Hausner, R.J. (1980) Paget's disease of the breast after subcutaneous mastectomy and reconstruction with a silicone prosthesis. *Plast. reconstr. Surg.*, **65**, 683–685
- Meneses, M.F., Unni, K.K. & Swee, R.G. (1993) Bizarre parosteal osteochondromatous proliferation of bone (Nora's lesion). *Am. J. surg. Pathol.*, **17**, 691–697
- Menon, A.G., Anderson, K.M., Riccardi, V.M., Chung, R.Y., Whaley, J.M., Yandell, D.W., Farmer, G.E., Freiman, R.N., Lee, J.K., Li, F.P., Barker, D.F., Ledbetter, D.H., Kleider, A., Martuza, R.L., Gusella, J.F. & Seizinger, B.R. (1990) Chromosome 17p deletions and p53 gene mutations associated with the formation of malignant neurofibrosarcomas in von Recklinghausen neurofibromatosis. *Proc. natl Acad. Sci. USA*, **87**, 5435–5439
- Merritt, K. & Brown, S.A. (1995) Distribution of titanium and vanadium following repeated injection of high-dose salts. *J. biomed. Mater. Res.*, **29**, 1175–1178
- Merritt, K. & Brown, S.A. (1996) Distribution of cobalt chromium wear and corrosion products and biologic reactions. *Clin. Orthop. rel. Res.*, **329** (Suppl.), S233–S243

- Merritt, K., Brown, S.A. & Sharkey, N.A. (1984a) Blood distribution of nickel, cobalt, and chromium following intramuscular injection into hamsters. *J. biomed. Mater. Res.*, **18**, 991–1004
- Merritt, K., Brown, S.A. & Sharkey, N.A. (1984b) The binding of metal salts and corrosion products to cells and proteins *in vitro*. *J. biomed. Mater. Res.*, **18**, 1005–1015
- Merritt, K., Wenz, L. & Brown, S.A. (1991) Cell association of fretting corrosion products generated in a cell culture. *J. orthop. Res.*, **9**, 289–296
- Merwin, R.M. & Redmon, L.W. (1963) Induction of plasma cell tumors and sarcomas in mice by diffusion chambers placed in the peritoneal cavity. *J. natl Cancer Inst.*, **31**, 997–1017
- Meryon, S.D. & Brook, A.M. (1989) *In vitro* cytotoxicity of three dentine bonding agents. *J. Dent.*, **17**, 279–283
- Mesnil, M. & Yamasaki, H. (1993) Cell-cell communication and growth of normal and cancer cells: evidence and hypothesis. *Mol. Carcinog.*, **7**, 14–17
- Miller, E.G., Washington, V.H., Bowles, W.H. & Zimmermann, E.R. (1986) Mutagenic potential of some chemical components of dental materials. *Dent. Mater.*, **2**, 163–165
- Miller, A.C., Fuciarelli, A.F., Jackson, W.E., Ejnik, E.J., Emond, C., Strocko, S., Hogan, J., Page, N. & Pellmar, T. (1998a) Urinary and serum mutagenicity studies with rats implanted with depleted uranium or tantalum pellets. *Mutagenesis*, **13**, 643–648
- Miller, A.C., Blakely, W.F., Livengood, D., Whittaker, T., Xu, J., Ejnik, J.W., Hamilton, M.M., Parlette, E., St. John, T., Gerstenberg, H.M. & Hsu, H. (1998b) Transformation of human osteoblast cells to the tumorigenic phenotype by depleted uranium-uranyl chloride. *Environ. Health Perspect.*, **106**, 465–471
- Mills, G. & Cusumano, J.A. (1979) Catalysis. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 5, 3rd Ed., New York, John Wiley, pp. 16–61
- Mishra A., Liu, J.-Y., Brody, A.R. & Morris, G.F. (1997) Inhaled asbestos fibers induce p53 expression in the rat lung. *Am. J. respir. Cell mol. Biol.*, **16**, 479–485
- Mitchell, D.F., Shankwalker, G.B. & Shazer, S. (1960) Determining the tumorigenicity of dental materials. *J. dent. Res.*, **39**, 1023–1028
- Mitelman, F., Fregert, S., Hedner, K. & Hillbertz-Nilsson, K. (1980) Occupational exposure to epoxy resins has no cytogenetic effect. *Mutat. Res.*, **77**, 345–348
- Mjör, I.A. & Moorhead, J.E. (1998) Selection of restorative materials, reasons for replacement and longevity of restorations in Florida. *J. Am. Coll. Dent.*, **65**, 27–33
- Mohanan, P.V. & Rathinam, K. (1996) Effect of bone wax extract on the frequency of bone marrow erythrocyte micronuclei in mice. *Vet. hum. Toxicol.*, **38**, 427–428
- Moizhess, T.G. & Vasiliev, J.M. (1989) Early and late stages of foreign-body carcinogenesis can be induced by implants of different shapes. *Int. J. Cancer*, **44**, 449–453
- Monkman, G.R., Orwoll, G. & Ivins, J.C. (1974) Trauma and oncogenesis. *Mayo Clin. Proc.*, **49**, 157–163
- Monsein, L.H. (1997a) Primer on medical device regulation: part I. History and background. *Radiology*, **205**, 1–9
- Monsein, L.H. (1997b) Primer on medical device regulation: part II. Regulation of medical devices by the U.S. Food and Drug Administration. *Radiology*, **205**, 10–18

- Montag, C. & Mondry, F. (1952) Ulcerations and fistular cancer following war injuries. *Strahlentherapie*, **87**, 104–112 (in German)
- Monteny, E., Delespesse, G., Screyen, H. & Spiette, M. (1978) Methylmethacrylate hypersensitivity in orthopaedic surgery. *Acta orthop. scand.*, **49**, 186–191
- Montgomery, E.A. & Meis, J.M. (1991) Nodular fasciitis. Its morphologic spectrum and immunohistochemical profile. *Am. J. surg. Pathol.*, **15**, 942–948
- Montgomery, E.A., Meis, J.M., Mitchell, M.S. & Enzinger, F.M. (1992) Atypical decubital fibroplasia. A distinctive fibroblastic pseudotumor occurring in debilitated patients. *Am. J. surg. Pathol.*, **16**, 708–715
- Moore, R.M., Jr, Hamburger, S., Jeng, L.L. & Hamilton, P.M. (1991) Orthopedic implant devices: prevalence and sociodemographic findings from the 1988 National Health Interview Survey. *J. appl. Biomat.*, **2**, 127–131
- Morgan, R.W. & Elcock, M.E. (1995) Artificial implants and soft tissue sarcomas. *J. clin. Epidemiol.*, **48**, 545–549
- Morgenstern, L., Gleischman, S.H., Michel, S.L., Rosenberg, J.E., Knight, I. & Goodman, D. (1985) Relation of free silicone to human breast carcinoma. *Arch. Surg.*, **120**, 573–577
- Morrissey, R.E., George, J.D., Price, C.J., Tyl, R.W., Marr, M.C. & Kimmel, C.A. (1987) The developmental toxicity of bisphenol A in rats and mice. *Fundam. appl. Toxicol.*, **8**, 571–582
- Morrow, P.E., Haseman, J.K., Hobbs, C.H., Driscoll, K.E., Vu, V. & Oberdörster, G. (1996) The maximum tolerated dose for inhalation bioassays: toxicity vs overload. *Fundam. appl. Toxicol.*, **29**, 155–167
- Morse, D. & Steiner, R.M. (1985) Cardiac valve identification atlas and guide. In: Morse, D., Steiner, R.M. & Fernandez, J., eds, *Guide to Prosthetic Cardiac Valves*, New York, Springer-Verlag, pp. 257–346
- Mossman, B.T., Faux, S., Janssen, Y., Jimenez, L.A., Timblin, C., Zanella, C., Goldberg, J., Walsh, E., Barchowsky, A. & Driscoll, K. (1997) Cell signaling pathways elicited by asbestos. *Environ. Health Perspect.*, **105** (Suppl. 5), 1121–1125
- Mrksich, M. & Whitesides, G.M. (1996) Using self-assembled monolayers to understand the interactions of man-made surfaces with proteins and cells. *Annu. Rev. Biophys. Biomol. Struct.*, **25**, 55–78
- Muhle, H., Bellman, B., Takenaka, S., Fuhst, R., Mohr, U. & Pott, F. (1992) Chronic effects of intratracheally instilled nickel-containing particles in hamsters. In: Nieboer, E. & Nriagu, J.O., eds, *Nickel and Human Health: Current Perspectives*, New York, John Wiley, pp. 467–479
- Müller, H. R. (1939) Accident and brain tumour. *Zentralbl. Chir.*, **20**, 1164 (in German)
- Munksgaard, E.C. (1992) Permeability of protective gloves to (di)methacrylates in resinous dental materials. *Scand. J. dent. Res.*, **100**, 189–192
- Munksgaard, E.C. & Freund, M. (1990) Enzymatic hydrolysis of (di)methacrylates and their polymers. *Scand. J. dent. Res.*, **98**, 261–267
- Murakata, L.A. & Rangwala, A.F. (1989) Silicone lymphadenopathy with concomitant malignant lymphoma. *J. Rheumatol.*, **16**, 1480–1482

- Murphy, S.T., Parker, R.B. & Woodard, J.C. (1997) Osteosarcoma following total hip arthroplasty in a dog. *J. small Anim. Pract.*, **38**, 263–267
- Murray, D.W., Carr, A.J. & Bulstrode, C.J. (1994) Which primary total hip replacement? *J. Bone Joint Surg.*, **77B**, 520–527
- Nagamoto, T. & Eguchi, G. (1997) Morphologic compatibility of intraocular lens haptics and the lens capsule. *J. Cataract refract. Surg.*, **23**, 1254–1259
- Naim, J.O., Lanzafame, R.J. & van Oss, C.J. (1993) The adjuvant effect of silicone-gel on antibody formation in rats. *Immunol. Invest.*, **22**, 151–161
- Nakada, T., Higo, N., Iijima, M., Nakayama, H. & Maibach, H.I. (1997) Patch test materials for mercury allergic contact dermatitis. *Contact Derm.*, **36**, 237–239
- Nakamoto, B., Guidotti, L.G., Kuhlen, C.V., Fowler, P. & Chisari, F.V. (1998) Immune pathogenesis of hepatocellular carcinomas. *J. exp. Med.*, **188**, 341–350
- Nakamura, M., Imai, K., Oshima, H., Kudo, T., Yoshioka, S. & Kawahara, H. (1985) Biocompatibility test of light-cured composites in vitro. *Dental Mater. J.*, **4**, 231–237
- Nakamura, A., Kawasaki, Y., Takada, K., Aida, Y., Kurokawa, Y., Kojima, S., Shintani, H., Matsui, M., Nohmi, T., Matsuoka, A., Sofuni, T., Kurihara, M., Miyata, N., Uchima, T. & Fujimaki, M. (1992) Difference in tumor incidence and other tissue responses to polyetherurethanes and polydimethylsiloxane in long-term subcutaneous implantation into rats. *J. biomed. Mater. Res.*, **26**, 631–650
- Nakamura, T., Shimizu, Y., Okumura, N., Matsui, T., Hyon, S.-H. & Shimamoto, T. (1994) Tumorigenicity of poly-L-lactide (PLLA) plates compared with medical-grade polyethylene. *J. biomed. Mater. Res.*, **28**, 17–25
- Nakamura, A., Kojima, S., Isama, K., Umemura, T., Kawasaki, Y., Takada, K., Tsuda, M. & Kurokawa, Y. (1995) The effects of oligomers content and surface morphology on foreign-body tumorigenesis with polyetherurethanes: two years subcutaneous implantation study in rats. *J. long-term Effects med. Implants*, **5**, 263–273
- Nakamura, A., Tsuchiya, T., Nakaoka, R., Wang, C., Nakamura, T., Imai, K. & Inoue, H. (1997) Studies on the development of evaluation method for the material/tissue interaction. In: *Annual Report of Cooperative Research Projects between Governmental and Private Institutions*, Part IV, Tokyo, Japan Health Science Foundation, pp. 123–132
- Nakamura, T., Shimizu, Y., Takimoto, Y., Tsuda, T., Li, Y.-H., Kiyotani, T., Teramachi, M., Hyon, S.-H., Ikada, Y. & Nishiya, K. (1998) Biodegradation and tumorigenicity of implanted plates made from a copolymer of  $\epsilon$ -caprolactone and L-lactide in rats. *J. biomed. Mater. Res.*, **42**, 475–484
- Nakaoka, R., Tsuchiya, T., Kato, K., Ikada, Y. & Nakamura, A. (1997) Studies on tumor-promoting activity of polyethylene: inhibitory activity of metabolic cooperation on polyethylene surfaces is markedly decreased by surface modification with collagen but not with RGDS peptide. *J. biomed. Mater. Res.*, **35**, 391–397
- Nasjleti, C.E., Castelli, W.A. & Caffesse, R.G. (1983) Effects of composite restorations on the periodontal membrane in monkeys. *J. dent. Res.*, **62**, 75–78

- Nassiri, M.R., Hanks, C.T., Cameron, M.J., Strawn, S.E. & Craig, R.G. (1994) Application of flow cytometry to determine the cytotoxicity of urethane dimethacrylate in human cells. *J. biomed. Mater. Res.*, **28**, 153–158
- National Technical Program (1992) NTP Technical Report on Toxicity Studies of 2-Hydroxy-4-Methoxybenzophenone, Administered Topically and in Dosed Feed to F344/N Rats and B6C3F1 Mice (Report Tx-21), Washington DC, US Department of Health and Human Services
- Nelson, J.P. & Phillips, P.H. (1990) Malignant fibrous histiocytoma associated with total hip replacement. A case report. *Orthop. Rev.*, **19**, 1078–1080
- Nelson, H.H., Wiencke, J.K., Gunn, L., Wain, J.C., Christiani, D.C. & Kelsey, K.T. (1998) Chromosome 3p14 alterations in lung cancer: evidence that *FHIT* exon deletion is a target of tobacco carcinogens and asbestos. *Cancer Res.*, **58**, 1804–1807
- Nishimoto, S., Matsushita, T., Matsumoto, K. & Adachi, S. (1996) A rare case of burn scar malignancy. *Burns*, **22**, 497–499
- Nolte, D. (1966) On sarcoma development following war injuries. *Monatschr. Unfallheilk. Versicher. Versorg. Verkehrsmed.*, **69**, 124–135 (in German)
- Nora, F.E., Dahlin, D.C. & Beabout, J.W. (1983) Bizarre parosteal osteochondromatous proliferations of the hands and feet. *Am. J. Surg. Pathol.*, **7**, 245–250
- Nothdurft, H. (1955) Experimental occurrence of sarcomas in rats and mice after implantation of round disks of gold, silver, platin or ivory. *Naturwissenschaften*, **42**, 75–76 (in German)
- Nothdurft, H. (1956) Experimental induction of sarcomas by implants. *Strahlentherapie*, **100**, 192–210 (in German)
- Nyrén, O., McLaughlin, J.K., Gridley, G., Ekbom, A., Johnell, O., Fraumeni, J.F., Jr & Adami, H.-O. (1995) Cancer risk after hip replacement with metal implants: a population based cohort study in Sweden. *J. natl Cancer Inst.*, **87**, 28–33
- Oberdörster, G. (1997) Pulmonary carcinogenicity of inhaled particles and the maximum tolerated dose. *Environ. Health Perspect.*, **105** (Suppl. 5), 1347–1356
- O'Connell, T.X., Fee, H.J. & Golding, A. (1976) Sarcoma associated with Dacron prosthetic material. Case report and review of the literature. *J. thorac. cardiovasc. Surg.*, **72**, 94–96
- Ognibene, F.A. & Theodoulou, M.H. (1991) Long-standing reaction to a hemi-silastic implant. *J. Foot Surg.*, **30**, 156–159
- Okada, T. & Ikada, Y. (1995) Surface modification of silicone for percutaneous implantation. *J. biomater. Sci. Polym. Ed.*, **7**, 171–180
- Olea, N., Pulgar, R., Pérez, P., Olea-Serrano, F., Rivas, A., Novello-Fertrell, A., Pedrza, V., Soto, A.M. & Sonnenschein, C. (1996) Estrogenicity of resin-based composites and sealants used in dentistry. *Environ. Health Perspect.*, **104**, 298–305
- Olsen, J.H., McLaughlin, J.K., Nyrén, O., Mellemkjaer, L., Lipworth, L., Blot, W.J. & Fraumeni, J.F., Jr (1999) Hip and knee implantations among patients with osteoarthritis and risk of cancer: a record-linkage study from Denmark. *Int. J. Cancer*, **81**, 719–722
- Ol'shevskaya, L.V. (1962) Changes in rat connective tissue associated with the development of tumors caused by implantation of cellophane. *Bull. exp. Biol. Med. (USSR)*, **52**, 1419–1422

- Oppenheimer, B.S., Oppenheimer, E.T. & Stout, A.P. (1948) Sarcomas induced in rats by implanting cellophane. *Proc. Soc. exp. Biol. Med.*, **67**, 33–34
- Oppenheimer, B.S., Oppenheimer, E.T. & Stout, A.P. (1952) Sarcomas induced in rodents by imbedding various plastic films. *Proc. Soc. exp. Biol. Med.*, **79**, 366–369
- Oppenheimer, B.S., Oppenheimer, E.T., Stout, A.P. & Danishefsky, I. (1953) Malignant tumors resulting from embedding plastics in rodents. *Science*, **118**, 305–306
- Oppenheimer, B.S., Oppenheimer, E.T., Danishefsky, I., Stout, A.P. & Eirich, F.R. (1955) Further studies of polymers as carcinogenic agents in animals. *Cancer Res.*, **15**, 333–340
- Oppenheimer, B.S., Oppenheimer, E.T., Danishefsky, I. & Stout, A.P. (1956) Carcinogenic effect of metals in rodent. *Cancer Res.*, **16**, 439–441
- Oppenheimer, B.S., Oppenheimer, E.T., Stout, A.P., Willhite, M. & Danishefsky, I. (1958) The latent period in carcinogenesis by plastics in rats and its relation to the presarcomatous stage. *Cancer*, **11**, 204–213
- Oppenheimer, E.T., Willhite, M., Danishefsky, I. & Stout, A.P. (1961) Observations on the effects of powdered polymer in the carcinogenic process. *Cancer Res.*, **21**, 132–137
- Oppenheimer, E.T., Willhite, M., Stout, A.P., Danishefsky, I. & Fishman, M.M. (1964) A comparative study of the effects of imbedding cellophane and polystyrene films in rats. *Cancer Res.*, **24**, 379–387
- Ørstavik, D. & Hongslo, J.K. (1985) Mutagenicity of endodontic sealers. *Biomaterials*, **6**, 129–132
- Ousterhout, D.K. & Stelnicki, E.J. (1996) Plastic surgery's plastics. *Clin. Plast. Surg.*, **23**, 183–190
- Øysæd, H., Ruyter, I.E. & Sjøvik Kleven, I.J. (1988) Release of formaldehyde from dental composites. *J. dent. Res.*, **67**, 1289–1294
- Paavolainen, P., Pukkala, E., Pulkkinen, P. & Visuri, T. (1999) Cancer incidence in Finnish hip replacement patients from 1980 to 1995. A nationwide cohort study involving 31,651 patients. *J. Arthroplasty*, **14**, 272–280
- Pache, J.-C., Janssen, Y.M.W., Walsh, E.S., Quinlan, T.R., Zanella, C.L., Low, R.B., Taatjes, D.J. & Mossman, B.T. (1998) Increased epidermal growth factor-receptor protein in a human mesothelial cell line in response to long asbestos fibers. *Am. J. Pathol.*, **152**, 333–340
- Paletta, C., Paletta, F.X., Jr & Paletta, F.X., Sr (1992) Squamous cell carcinoma following breast augmentation. *Ann. plast. Surg.*, **29**, 425–429
- Pande, G.S. (1983) Thermoplastic polyurethanes as insulating materials for long-life cardiac pacing leads. *Pacing clin. Electrophysiol.*, **6**, 858–867
- Pardo, A.D., Adams, W.H., McCracken, D. & Legendre, A.M. (1990) Primary jejunal osteosarcoma associated with a surgical sponge in a dog. *J. Am. vet. med. Assoc.*, **196**, 935–938
- Parham, D.M. & Fisher, C. (1997) Angiosarcomas of the breast developing post radiotherapy. *Histopathology*, **31**, 189–195
- Park, S.-H. & Aust, A.E. (1998) Participation of iron and nitric oxide in the mutagenicity of asbestos in *hgprt<sup>-</sup>, gpt<sup>+</sup>* Chinese hamster V79 cells. *Cancer Res.*, **58**, 1144–1148

- Parkin, D.M., Whelan, S.L., Ferlay, J., Raymond, L. & Young, J., eds (1997) *Cancer Incidence in Five Continents*, Vol. VII (IARC Scientific Publications No. 143), Lyon, IARC
- Paschke, E. (1981) Ziegler process polyethylene. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 16, 3rd Ed., New York, John Wiley, pp. 433–452
- Patchezfsky, A.S. & Enzinger, F.M. (1981) Intravascular fasciitis: a report of 17 cases. *Am. J. surg. Pathol.*, **5**, 29–36
- Paterson, H.S., Meredith, D.J. & Craddock, D.R. (1989) Malignant fibrous histiocytoma associated with a Dacron vascular prosthesis. *Ann. thorac. Surg.*, **47**, 772–774
- Paulini, K., Beneke, G., Körner, B. & Enders, R. (1975) The relationship between the latent period and animal age in the development of foreign body sarcomas. *Beitr. Pathol.*, **154**, 161–169
- Pellengahr, C., Jansson, V., Hagen, H.J. & Refior, H.J. (1997) Loosening of total knee arthroplasty, initiated by non-Hodgkin lymphoma. *Z. Orthop.*, **135**, 171–173 (in German)
- Pellmar, T.C., Hogan, J.B., Benson, K.A. & Landauer, M.R. (1998) *Toxicological Evaluation of Depleted Uranium in Rats: Six-Month Evaluation Point* (AFRRI Special Publication 98-1), Bethesda, MD, Armed Forces Radiobiological Research Institute
- Pellmar, T.C., Fuciarelli, A.F., Ejnik, J.W., Hamilton, M., Hogan, J., Strocko, S., Emond, C., Mottaz, H.M. & Landauer, M.R. (1999) Distribution of uranium in rats implanted with depleted uranium pellets. *Toxicol. Sci.*, **49**, 29–39
- Penman, H.G. & Ring, P.A. (1984) Osteosarcoma in association with total hip replacement. *J. Bone Joint Surg.*, **66B**, 632–634
- Pennisi, V.R. (1984) Obscure carcinoma encountered in subcutaneous mastectomy in silicone- and paraffin-injected breasts: two patients. *Plast. Reconstr. Surg.*, **74**, 535–538
- Peppas, N.A. (1996) Hydrogels. In: Ratner, B.D., Hoffman, A.S., Schoen, F.J. & Lemons, J.E. eds, *Biomaterial Science: An Introduction to Materials in Medicine*, San Diego, Academic Press, pp. 60–64
- Pereira, M.C., Pereira, M.L. & Sousa, J.P. (1998) Evaluation of nickel toxicity on liver, spleen, and kidney of mice after administration of high-dose metal ion. *J. biomed. Mater. Res.*, **40**, 40–47
- Perera, F.P. (1996) Molecular epidemiology: insights into cancer susceptibility, risk assessment, and prevention. *J. natl Cancer Inst.*, **88**, 496–509
- Perosio, P.M. & Weiss, S.W. (1993) Ischemic fasciitis: a juxta-skeletal fibroblastic proliferation with a predilection for elderly patients. *Mod. Pathol.*, **6**, 69–72
- Peter, L. (1966) Lung carcinoma after shrapnel fragment in situ injury. *Z. allg. Pathol.*, **109**, 158–163 (in German)
- Petit, J.-Y., Lê, M.G., Mouriesse, H., Rietjens, M., Gill, P., Contesso, G. & Lehmann, A. (1994) Can breast reconstruction with gel-filled silicone implants increase the risk of death and second primary cancer in patients treated by mastectomy for breast cancer? *Plast. Reconstr. Surg.*, **94**, 115–119
- Pfleiderer, B., Ackerman, J.L. & Garrido, L. (1993a) *In vivo* localized proton NMR spectroscopy of silicone. *Magn. Reson. Med.*, **30**, 149–154

- Pfleiderer, B., Ackerman, J.L. & Garrido, L. (1993b) Migration and biodegradation of free silicone from silicone gel-filled implants after long-term implantation. *Magn. Reson. Med.*, **30**, 534–543
- Philip, J. (1982) Squamous cell carcinoma arising at the site of an underlying bullet. *J. Roy. Coll. Surg. Edinb.*, **27**, 365–366
- Philipsberg, K. (1922) The traumatic sarcoma. *Klin. Wochenschr.*, **48**, 2385–2386 (in German)
- Picha, G.J. & Goldstein, J.A. (1991) Analysis of the soft-tissue response to components used in the manufacture of breast implants: rat animal model. *Plast. Reconstr. Surg.*, **87**, 490–500
- Piconi, C., Burger, W., Richter, H.G., Cittadini, A., Maccauro, G., Covacci, V., Bruzzese, N., Ricci, G.A. & Marmo, E. (1998) Y-TZP ceramics for artificial joint replacements. *Biomaterials*, **19**, 1489–1494
- Piguet, P.F. & Vesin C. (1994) Treatment by human recombinant soluble TNF receptor of pulmonary fibrosis induced by bleomycin or silica in mice. *Eur. Respir. J.*, **7**, 515–518
- Pinchuk, L. (1994) A review of the biostability and carcinogenicity of polyurethanes in medicine and the new generation of ‘biostable’ polyurethanes. *J. Biomater. Sci. Polymer Ed.*, **6**, 225–267
- Piskin, E. (1994) Biodegradable polymers as biomaterials. *J. Biomater. Sci. Polymer Ed.*, **6**, 775–795
- Pitcher, M.E., Davidson, T.I., Fisher, C. & Thomas, J.M. (1994) Post irradiation sarcoma of soft tissue and bone. *Eur. J. Surg. Oncol.*, **20**, 53–56
- Planinsek, F. (1979) Cobalt and cobalt alloys. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 6, 3rd Ed., New York, John Wiley, pp. 481–494
- Plant, C.G., Tobias, R.S. & Browne, R.M. (1986) Pulpal response to an experimental adhesion promoter. *J. Oral Pathol.*, **15**, 196–200
- Pogribna, M., Pogribny, I., Miller, B., Melnyk, S., Muskhelishvili, L. & James, J. (1997) Foreign body carcinogenesis is associated with p53 mutations (Abstract). *Proc. Am. Assoc. Cancer Res.*, **38**, 280
- Polyzois, G.L., Dahl, J.E. & Hensten-Pettersen, A. (1995) Biological testing of dental materials: development of national and international standards. *J. Biomater. Appl.*, **9**, 355–362
- Pomplun, S. (1970) Carcinoma formation after intrapulmonary foreign body. *Z. Erkrank. Atmungsorg. Folia Bronchol.*, **132**, 257–262 (in German)
- Pott, F., Ziem, U., Reiffer, F.-J., Huth, F., Ernst, H. & Mohr, U. (1987) Carcinogenicity studies on fibres, metal compounds, and some other dust in rats. *Exp. Pathol.*, **32**, 129–152
- Pott, F., Rippe, R.M., Roller, M., Csicsaky, M., Rosenbruch, M. & Huth, F. (1989) Tumours in the abdominal cavity of rats after intraperitoneal injection of nickel compounds. In: Vernet, J.-P., ed., *Proceedings of the International Conference on Heavy Metals in the Environment, Geneva, 12–15 September 1989*, Vol. 2, Geneva, World Health Organization, pp. 127–129
- Pott, F., Rippe, R.M., Roller, M., Csicsaky, M., Rosenbruch, M. & Huth, F. (1992) Carcinogenicity studies on nickel compounds and nickel alloys in rats by intraperitoneal injection. In: Nieboer, E. & Nriagu, J.O., eds, *Nickel and Human Health: Current Perspectives*, New York, John Wiley, pp. 491–502

- Preston, R.J., Au, W., Bender, M.A., Brewen, J.G., Carrano, A.V., Heddle, J.A., McFee, A.F., Wolff, S. & Wassom, J.S. (1981) Mammalian in vivo and in vitro cytogenetic assays: a report of the U.S. EPA's gene-tox program. *Mutat. Res.*, **87**, 143–188
- Price, S.K., Kahn, L.B. & Saxe, N. (1993) Dermal and intravascular fasciitis. Unusual variants of nodular fasciitis. *Am. J. Dermatopathol.*, **15**, 539–543
- Proppe, K.H., Scully, R.E. & Rosai, J. (1984) Postoperative spindle cell nodules of genito-urinary tract resembling sarcomas. A report of eight cases. *Am. J. surg. Pathol.*, **8**, 101–108
- Prosinger, F. (1952) Contribution to bone sarcoma development after accident. *Langenbecks Arch. dtsch. Z. Chir.*, **272**, 392–407 (in German)
- Putzsch, R.E. (1982) Polyamides (general). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 328–371
- Puza, V., Novák, L. & Komárek, S. (1990) *In vitro* studies on cytotoxicity of the dental composite Heliosit at different stages of polymerisation. *Dtsch. Stomatol.*, **40**, 423–425 (in German)
- Quinlan, T.R., BeruBe, K.A., Hacker, M.P., Taatjes, D.J., Timblin, C.R., Goldberg, J., Kimberley, P., O'Shaughnessy, P., Hemenway, D., Torino, J., Jimenez, L.A. & Mossman, B.T. (1998) Mechanisms of asbestos-induced nitric oxide production by rat alveolar macrophages in inhalation and *in vitro* models. *Free Rad. Biol. Med.*, **24**, 778–788
- Qvist, V., Stoltze, K. & Qvist, J. (1989) Human pulp reactions to resin restorations performed with different acid-etch restorative procedures. *Acta odontol. scand.*, **47**, 253–263
- Rabkin, C.S., Silverman, S., Tricot, G., Garland, L.L., Ballester, O. & Potter, M. (1996) The National Cancer Institute Silicone Implant/Multiple Myeloma Registry. *Curr. Topics Microbiol. Immunol.*, **210**, 385–387
- Rachko, D. & Brand, K.G. (1983) Chromosomal aberrations in foreign body tumorigenesis of mice. *Proc. Soc. exp. Biol. Med.*, **172**, 382–388
- Radio, S.J. & McManus, B.M. (1996) Pathology of prosthetic materials and devices. In: Damjanov, I. & Linder, J., eds, *Anderson's Pathology*, 10th Ed., St. Louis, Mosby, pp. 685–711
- Raikhlin, N.T. & Kogan, A.H. (1961) On the development and malignization of connective tissue capsules around plastic implants. *Vop. Onkol.*, **7**, 13–17 (in Russian)
- Ramael, M., Lemmens, G., Eerdekkens, C., Buysse, C., Deblie, I., Jacobs, W. & van Marck, E. (1992) Immunoreactivity for p53 protein in malignant mesothelioma and non-neoplastic mesothelium. *J. Pathol.*, **168**, 371–375
- Rasmussen, P. (1997) Immediate allergic reaction to latex gloves in a child patient. *Nor. Tannlegefor. Tid.*, **107**, 16–17 (in Danish)
- Rasmussen, K., Grimsgaard, C., Vik-Mo, H. & Stalsberg, H. (1985) Male breast cancer from pacemaker pocket. *PACE*, **8**, 761–763
- Rasmusson, C.-G. & Lundin, S. (1995) Class II restorations in six different posterior composite resins; five year results. *Swed. dent. J.*, **19**, 173–182
- Raso, A.M., Rispoli, P., Castagno, P.L., Muncinelli, M., Maggio, D. & Sandrone, N. (1993) Malignant fibrohistiocytoma arising at a femoral Dacron vascular prosthesis. Case report and review of the literature. *Minerva Chir.*, **48**, 1227–1232 (in Italian)

- Ratanasathien, S., Wataha, J.C., Hanks, C.T. & Dennison, J.B. (1995) Cytotoxic interactive effects of dentin bonding components on mouse fibroblasts. *J. dent. Res.*, **74**, 1602–1606
- Rathbun, M.A., Craig, R.G., Hanks, C.T. & Filisko, F.E. (1991) Cytotoxicity of a BIS-GMA dental composite before and after leaching in organic solvents. *J. biomed. Mater. Res.*, **25**, 443–457
- Ratner, B.D., Hoffman, A.S., Schoen, F.J. & Lemons, J.E., eds (1996) *Biomaterials Science: An Introduction to Materials in Medicine*, New York, Academic Press, pp. 3–4
- Ravaglioli, A. & Krajewski, A. (1992) Maxillofacial implants. In: Ravaglioli, A. & Krajewski, A., eds, *Bioceramics, Materials, Properties, Applications*, London, Chapman & Hall, pp. 289–313
- Reck, R. (1984) Bioactive glass-ceramics in ear surgery: animal studies and clinical results. *Laryngoscope*, **94**, 1–54
- Reckling, F.W. & Dillon, W.L. (1977) The bone-cement interface temperature during total joint replacement. *J. Bone Joint Surg.*, **59**, 80–82
- Rees, T.D., Ballantyne, D.L., Jr & Hawthorne, G.A. (1970) Silicone fluid research. A follow-up summary. *Plast. reconstr. Surg.*, **46**, 50–56
- Reinhardt, G. (1928) Trauma–foreign body–brain tumour. *Münch. Med. Wochenschr.*, **75**, 399–401 (in German)
- Richards Manufacturing Company (1980) *Biophase™ Implant Material Technical Information* (Technical Publication No. 3846), Memphis, TN
- Richardson, P.N. (1982) Plastic processing. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 184–206
- Rigdon, R.H. (1975) Tissue reaction to foreign materials. *Crit. Rev. Food Sci. Nutr.*, **August**, 435–476
- Rivièvre, M.R., Chouroulinkov, I. & Guerin, M. (1960) Sarcomas produced by implantation of polystyrene in rats: results appreciably different according to the strain of animals used. *C. R. Soc. Biol.*, **154**, 485–487 (in French)
- Robertson, J.S. & Hussain, M. (1969) Metabolism of camphors and related compounds. *Biochem. J.*, **113**, 57–65
- Rock, M.G. (1993) Toxicity oncogenesis. Case reports. In: Morrey, B.F., ed., *Biological, Material and Mechanical Considerations of Joint Replacement*, New York, Raven Press, pp. 339–351
- Rodriguez-Bigas, M., Mahoney, M.C., Karakousis, C.P. & Petrelli, N.J. (1994) Desmoid tumors in patients with familial adenomatous polyposis. *Cancer*, **74**, 1270–1274
- Roe, F.J., Dukes, C.E. & Mitchley, B.C. (1967) Sarcomas at the site of implantation of a polyvinyl plastic sponge: incidence reduced by use of thin implants. *Biochem. Pharmacol.*, **16**, 647–650
- Rogers, J.G., Greenaway, J.C., Mirkes, P.E. & Shepard, T.H. (1986) Methacrylic acid as a teratogen in rat embryo culture. *Teratology*, **33**, 113–117

- Rosenthal, G.J., Germolec, D.R., Blazka, M.E., Corsini, E., Simeonova, P., Pollock, P., Kong, L.Y., Kwon, J. & Luster, M.I. (1994) Asbestos stimulates IL-8 production from human lung epithelial cells. *J. Immunol.*, **153**, 3237–3244
- Rostoker, G., Robin, J., Binet, O. & Paupe, J. (1986) Dermatoses caused by intolerance to metals of osteosynthesis materials and prostheses (nickel, chromium, cobalt). *Ann. Dermatol. Venereol.*, **113**, 1097–1108 (in French)
- Rothenberger-Janzen, K., Flueckiger, A. & Bigler, R. (1998) Carcinoma of the breast and pacemaker generators. *PACE*, **21**, 769–771
- Rowland, P.H., Moise, N.S. & Severson, D. (1991) Myxoma at the site of a subcutaneous pacemaker in a dog. *J. Am. anim. Hosp. Assoc.*, **27**, 649–651
- Rudmann, D.G., Van Alstine, W.G., Doddy, A.F., Sandusky, G.E., Barkdull, T. & Janovitz, E.B. (1996) Pulmonary and mediastinal metastases of a vaccination site sarcoma in a cat. *Vet. Pathol.*, **33**, 466–469
- Rushforth, G.F. (1974) Osteosarcoma of the pelvis following radiotherapy for carcinoma of the cervix. *Br. J. Radiol.*, **47**, 147–152
- Russell, F.E., Simmers, M.H., Hirst, A.E. & Pudenz, R.H. (1959) Tumors associated with embedded polymers. *J. natl Cancer Inst.*, **23**, 305–315
- Ruyter, I.E. (1995) Physical and chemical aspects related to substances released from polymer materials in an aqueous environment. *Adv. dent. Res.*, **9**, 344–347
- Ryan, P.C., Newcomb, G.M., Seymour, G.J. & Powell, R.N. (1984) The pulpal response to citric acid in cats. *J. clin. Periodontol.*, **11**, 633–643
- Ryan, P., Lee, M.W., North, B. & McMichael, A.J. (1992) Amalgam fillings, diagnostic dental X-rays and tumours of the brain and meninges. *Oral Oncol., Eur. J. Cancer*, **28B**, 91–95
- Ryhänen, J., Niemi, E., Serlo, W., Niemelä, E., Sandvik, P., Pernu, H. & Salo, T. (1997) Biocompatibility of nickel-titanium shape memory metal and its corrosion behavior in human cell cultures. *J. biomed. Mater. Res.*, **35**, 451–457
- Ryu, R.K.N., Bovill, E.G. Jr, Skinner, H.B. & Murray, W.R. (1987) Soft tissue sarcoma associated with aluminum oxide ceramic total hip arthroplasty. A case report. *Clin. Orthop. rel. Res.*, **216**, 207–212
- Salnikow, K., Wang, S. & Costa, M. (1997) Induction of activating transcription factor 1 by nickel and its role as a negative regulator of thrombospondin I gene expression. *Cancer Res.*, **57**, 5060–5066
- Sandler, I., Teeger, M. & Best, S. (1997) Metastatic vaccine-associated fibrosarcoma in a 10-year-old cat. *Can. Vet. J.*, **38**, 374
- Saunders, J.H. (1982) Polyamide fibers. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 372–405
- Schäfer, K. (1965) An accidental contribution to meningioma formation after a trauma. *Zentralbl. Allg. Pathol.*, **107**, 476–480 (in German)
- Schaller, H.G., Klaiber, B., Götz, W. & Benz, M. (1985) *In vitro* cytotoxicity of dentine bonding, enamel bonding and cavity lining agents. *Dtsch. Zahnärztl. Z.*, **40**, 929–934 (in German)

- Schapira, R.M., Ghio, A.J., Effros, R.M., Morrisey, J., Dawson, C.A. & Hacker, A.D. (1994) Hydroxyl radicals are formed in the rat lung after asbestos instillation *in vivo*. *Am. J. respir. Cell mol. Biol.*, **10**, 573–579
- Schedle, A., Franz, A., Rausch-Fan, X., Samorapoompichit, P., Boltz-Nitulescu, G. & Slavicek, R. (1994) Cytotoxicity testing of dental materials: composite versus amalgam. *Z. Stomatol.*, **Suppl. 6**: 39–42 (in German)
- Schedle, A., Samorapoompichit, P., Rausch-Fan, X.H., Franz, A., Füreder, W., Sperr, W.R., Sperr, W., Ellinger, A., Slavicek, R., Boltz-Nitulescu, G. & Valent, P. (1995) Response of L-929 fibroblasts, human gingival fibroblasts, and human tissue mast cells to various metal cations. *J. dent. Res.*, **74**, 1513–1520
- Schedle, A., Samorapoompichit, P., Füreder, W., Rausch-Fan, X.H., Franz, A., Sperr, W.R., Sperr, W., Slavicek, R., Simak, S., Klepetko, W., Ellinger, A., Ghannadan, M., Baghestanian, M., & Valent, P. (1998a) Metal ion-induced toxic histamine release from human basophils and mast cells. *J. biomed. Mater. Res.*, **39**, 560–567
- Schedle, A., Rausch-Fan, X.H., Samorapoompichit, P., Franz, A., Leutmezer, F., Spittler, A., Baghestanian, M., Lucas, T., Valent, P., Slavicek, R. & Boltz-Nitulescu, G. (1998b) Effects of dental amalgam and heavy metal cations on cytokine production by peripheral blood mononuclear cells *in vitro*. *J. biomed. Mater. Res.*, **42**, 76–84
- Schedle, A., Franz, A., Rausch-Fan, X.H., Spittler, A., Lucas, T., Samorapoompichit, P., Sperr, W. & Boltz-Nitulescu, G. (1999) Cytotoxic effects of dental composites, adhesive substances, compomers and cements. *Dental Mater.*, (in press)
- Scheid, P. (1938) Tumour formation after bullet injury. *Frankfurt Z. Pathol.*, **51**, 446–478 (in German)
- Schinz, H.R. & Uehlinger, E. (1942) Metals: a new principle of carcinogenesis. *Z. Krebsforsch.*, **52**, 425–437
- Schmalz, G., Langer, H. & Schweikl, H. (1998a) Cytotoxicity of dental alloy extracts and corresponding metal salt solutions. *J. dent. Res.*, **77**, 1772–1778
- Schmalz, G., Schuster, U. & Schweikl, H. (1998b) Influence of metals on IL-6 release *in vitro*. *Biomaterials*, **19**, 1689–1694
- Schmidt, H. & Jaquet, G.-H. (1963) Meningioma formation and foreign body. *Z. Neurochir.*, **24**, 65–73 (in German)
- Schmidt, M., Weber, H. & Schön, R. (1996) Cobalt chromium molybdenum metal combination for modular hip prostheses. *Clin. Orthop.*, **329S**, S35–S47
- Schneberger, G.L. (1981) Metal surface treatments (cleaning). In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 296–312
- Schneider, T., Renney, J. & Hayman, J. (1997) Angiosarcoma occurring with chronic osteomyelitis and residual foreign material: Case report of a late World War II wound complication. *Aust. N.Z. J. Surg.*, **67**, 576–578
- Schoen, F.J. (1987) Biomaterial-associated infection, neoplasia, and calcification. Clinico-pathologic features and pathophysiologic concepts. *Trans. Am. Soc. Artif. Intern. Organs*, **33**, 8–18

- Schuh, M.E. & Radford, D.M. (1994) Desmoid tumor of the breast following augmentation mammoplasty. *Plast. Reconstr. Surg.*, **93**, 603–605
- Schultze, A. & Bingas, B. (1968) Meningioma formation induced by foreign body. *Beitr. Neurochir.*, **15**, 297–301 (in German)
- Schürch, W. (1997) Myofibroblast. In: Sternberg, S.S., ed., *Histology for Pathologists*, 2nd Ed., New York, Raven Press, pp. 129–165
- Schweikl, H. & Schmalz, G. (1997) Glutaraldehyde-containing dentin bonding agents are mutagens in mammalian cells *in vitro*. *J. biomed. Mater. Res.*, **36**, 284–288
- Schweikl, H. & Schmalz, G. (1999) Triethylene glycol dimethacrylate induces large deletions in the *hprt* gene of V79 cells. *Mutat. Res.*, **438**, 71–78
- Schweikl, H., Schmalz, G. & Bey, B. (1994) Mutagenicity of dentin bonding agents. *J. biomed. Mater. Res.*, **28**, 1061–1067
- Schweikl, H., Schmalz, G. & Göttke, C. (1996) Mutagenic activity of various dentine bonding agents. *Biomaterials*, **17**, 1451–1456
- Schweikl, H., Schmalz, G. & Rackebrandt, K. (1998) The mutagenic activity of unpolymerized resin monomers in *Salmonella typhimurium* and V79 cells. *Mutat. Res.*, **415**, 119–130
- Scully, R.E., Mark, E.J., McNeely, W.F. & McNeely, B.U. (1991) Case records of the Massachusetts General Hospital. Weekly clinicopathological exercises. Case 4-1991. *New Engl. J. Med.*, **324**, 251–259
- Scully, C., Beyli, M., Ferreiro, M.C., Ficarra, G., Gill, Y., Griffiths, M., Holmstrup, P., Mutlu, S., Porter, S. & Wray, D. (1998) Update on oral lichen planus: etiopathogenesis and management. *Crit. Rev. Oral Biol. Med.*, **9**, 86–122
- Sears, J.K. & Touchette, N.W. (1989) Plasticizers. In: Grayson, M., Mark, H.F., Othmer, D.F. & Othmer, D.F. eds, *Kirk-Othmer Concise Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 902–906
- Semlitsch, M. (1992) 25 years Sulzer development of implant materials for total hip prostheses. *Medicajournal, Spring*, 1–7
- Semlitsch, M. & Willert, H.G. (1980) Properties of implant alloys for artificial hip joints. *Med. biol. Eng. Comp.*, **18**, 511–520
- Seppäläinen, A.M. & Rajaniemi, R. (1984) Local neurotoxicity of methyl methacrylate among dental technicians. *Am. J. Ind. Med.*, **5**, 471–477
- Sever, C.E., Leith, C.P., Appenzeller, J. & Foucar, K. (1996) Kikuchi's histiocytic necrotizing lymphadenitis associated with ruptured silicone breast implant. *Arch. Pathol. Lab. Med.*, **120**, 380–385
- Seydel, M.H. (1892) Medical Association of Munich. Demonstrations. *Münch. Med. Wochenschr.*, **8**, 787 (in German)
- Shanklin, D.R. & Smalley, D.L. (1995) Quantitative aspects of cellular responses to silicone. *Int. J. Occup. Med. Toxicol.*, **4**, 99–111
- Shearman, C.P. & Watts, G.T. (1986) Paget's disease of the nipple after subcutaneous mastectomy for cancer with primary reconstruction. *Ann. Roy. Coll. Surg. Engl.*, **68**, 17–18
- Sherlock, D.J., Rickards, H., Gardecki, T.I.M. & Hamer, J.D. (1987) Development of a sarcoma in a surgical scar. *Postgrad. med. J.*, **63**, 1097–1098

- Shulman, J., Wiznitzer, T. & Neuman, Z. (1963) Comparative study of sarcoma formation by implanted polyethylene film and mesh in white rats. *Br. J. plast. Surg.*, **16**, 336–340
- Siddons, A.H.M. & MacArthur, A.M. (1952) Carcinomata developing at the site of foreign bodies in the lung. *Br. J. Surg.*, **39**, 542–545
- Silicosis and Silicate Disease Committee (1988) Diseases associated with exposure to silica and nonfibrous silicate minerals. *Arch. Pathol. Lab. Med.*, **112**, 673–720
- Silverman, B.G., Gross, T.P., Kaczmarek, R.G., Hamilton, P. & Hamburger, S. (1995) The epidemiology of pacemaker implantation in the United States. *Public Health Rep.*, **110**, 42–46
- Silverstein, M.J., Gamagami, P. & Handel, N. (1990) Missed breast cancer in an augmented woman using implant displacement mammography. *Ann. plast. Surg.*, **25**, 210–213
- Simeonova, P.P., Toriumi, W., Kommineni, C., Erkan, M., Munson, A.E., Rom, W.N. & Luster, M.I. (1997) Molecular regulation of IL-6 activation by asbestos in lung epithelial cells: role of reactive oxygen species. *J. Immunol.*, **159**, 3921–3928
- Simmers, M.H., Agnew, W.F. & Pudenz, R.H. (1963) Effects of plastic polymers within the rat's peritoneal cavity. *Bol. Inst. Estud. med. biol. Mex.*, **21**, 1–13
- Sinclair, T.M., Kerrigan, C.L., Buntic, R. & Szycher, M. (1993) Biodegradation of the polyurethane foam covering of breast implants. *Plast. Reconstr. Surg.*, **92**, 1003–1014
- Sinibaldi, K., Rosen, H., Liu, S. & DeAngelis, M. (1976) Tumors associated with metallic implants in animals. *Clin. Orthop.*, **118**, 257–266
- Solomon, M.I. & Sekel, R. (1992) Total hip arthroplasty complicated by a malignant fibrous histiocytoma. A case report. *J. Arthroplasty*, **7**, 549–550
- SOU (1989) To prevent allergy/hypersensitivity. In: *Att förebygga ALLERGI/överkänslighet* (Statens offentliga utredningar 1989:76), Stockholm, Social Department (in Swedish)
- Stambolis, C., Fischer, P., Doppl, W. & Hocke, M. (1982) Lung scirrhous carcinoma after shrapnel fragment injury. *Med. Welt*, **33**, 177–181 (in German)
- Stanley, H.R., Bowen, R.L. & Folio, J. (1979) Compatibility of various materials with oral tissues. II: Pulp responses to composite ingredients. *J. dent. Res.*, **58**, 1507–1517
- Stea, S., Visentin, M., Cervellati, M., Verri, E., Cenni, E., Savarino, L., Stea, S. & Pizzoferrato, A. (1998) *In vitro* sister chromatid exchange induced by glass ionomer cements. *J. biomed. Mater. Res.*, **40**, 545–550
- Steinbrunner, R.L., Setcos, J.C. & Kafrawy, A.H. (1991) Connective tissue reactions to glass ionomer cements and resin composites. *Am. J. Dent.*, **4**, 281–284
- Stemmer, K.L., Bingham, E. & Barkley, W. (1975) Pulmonary response to polyurethane dust. *Environ. Health Perspect.*, **11**, 109–113
- Stevenson, S. (1991) Fracture-associated sarcomas. *Vet. Clin. North Am. small Anim. Pract.*, **21**, 859–872
- Stevenson, S., Hohn, R.B., Pohler, O.E., Fetter, A.W., Olmstead, M.L. & Wind, A.P. (1982) Fracture-associated sarcoma in the dog. *J. Am. vet. Med. Assoc.*, **180**, 1189–1196
- Stinson, N.E. (1960) Tissue reaction to polymethylmethacrylate in rats and guinea pigs. *Nature*, **188**, 678
- Stinson, N.E. (1964) The tissue reaction induced in rats and guinea pigs by polymethylmethacrylate (acrylic) and stainless steel (18/18/Mo). *Br. J. exp. Pathol.*, **45**, 21–29

- Stone, J.W. & Arnold, G.E. (1967) Human larynx injected with Teflon paste. Histological study of innervation and tissue reaction. *Arch. Otolaryngol.*, **86**, 550–561
- Stratton, M.R., Williams, S., Fisher, C., Ball, A., Westbury, G., Gusterson, B.A., Fletcher, C.D., Knight, J.C., Fung, Y.K. & Reeves, B.R. (1989) Structural alterations of the RB1 gene in human soft tissue tumours. *Br. J. Cancer*, **60**, 202–205
- Strong, L.C., Williams, W.R. & Tainsky, M.A. (1992) The Li–Fraumeni syndrome: from clinical epidemiology to molecular genetics. *Am. J. Epidemiol.*, **135**, 190–199
- Suda, M. & Kawase, T. (1991) Cytobiochemical study of composite resins. Effect of triethylene glycol dimethacrylate (TEGDMA) on the growth and differentiation of osteoblasts. *Kanagawa Shigaku*, **26**, 11–24 (in Japanese)
- Sun, Z.L., Wataha, J.C. & Hanks, C.T. (1997) Effects of metal ions on osteoblast-like cell metabolism and differentiation. *J. Biomed. Mater. Res.*, **34**, 29–37
- Sunderman, F.W., Jr (1984) Carcinogenicity of nickel compounds in animals. In: Sunderman, F.W., Jr, ed., *Nickel in the Human Environment* (IARC Scientific Publications No. 53), Lyon, IARC, pp. 127–142
- Sunderman, F.W., Jr & Maenza, R.M. (1976) Comparisons of carcinogenicities of nickel compounds in rats. *Res. Commun. chem. Pathol. Pharmacol.*, **14**, 319–330
- Sunderman, F.W., Jr, McCully, K.S. & Hopfer, S.M. (1984) Association between erythrocytosis and renal cancers in rats following intrarenal injection of nickel compounds. *Carcinogenesis*, **5**, 1511–1517
- Sundgren, J.E., Bodo, P., Lundstrom, I., Berggren, A. & Hellem, S. (1985) Auger electron spectroscopic studies of stainless-steel implants. *J. biomed. Mater. Res.*, **19**, 663–671
- Süry, P. & Semlitsch, M. (1978) Corrosion behavior of cast and forged cobalt-based alloys for double alloy joint endoprostheses. *J. biomed. Mater. Res.*, **12**, 723–741
- Swafford, D.S., Nikula, K.J., Mitchell, C.E. & Belinsky, S.A. (1995) Low frequency of alterations in *p53*, *K-ras*, and *mdm2* in rat lung neoplasms induced by diesel exhaust or carbon black. *Carcinogenesis*, **16**, 1215–1221
- Swann, M. (1984) Malignant soft-tissue tumour at the site of a total hip replacement. *J. Bone Joint Surg.*, **B66**, 629–631
- Swanson, S.A., Freeman, M.A. & Heath, J.C. (1973) Laboratory tests on total joint replacement prosthesis. *J. Bone Joint Surg.*, **55B**, 759–773
- Swierenga, S.H. & Yamasaki, H. (1992) Performance of tests for cell transformation and gap-junction intercellular communication for detecting nongenotoxic carcinogenic activity. In: Vainio, H., Magee, P., McGregor, D. & McMichael, A., eds, *Mechanisms of Carcinogenesis in Risk Identification*, Lyon, IARC, pp. 165–193
- Szycher, M. & Siciliano, A.A. (1991) Polyurethane-covered mammary prosthesis: a nine-year follow-up assessment. *J. Biomater. Appl.*, **5**, 282–322
- Szycher, M., Lee, S.J. & Siciliano, A.A. (1991) Breast prostheses: A critical review. *J. Biomater. Appl.*, **5**, 256–281
- Tait, N.P., Hacking, P.M. & Malcolm, A.J. (1988) Malignant fibrous histiocytoma occurring at the site of a previous total hip replacement. *Br. J. Radiol.*, **61**, 73–76

- Takagi, M., Konttinen, Y.T., Santavirta, S., Kangaspunta, P., Suda, A. & Rokkanen, P. (1995) Cathepsin G and alpha 1-antichymotrypsin in the local host reaction to loosening of total hip prostheses. *J. Bone Joint Surg.*, **77A**, 16–25
- Takahara, A., Coury, A.J., Hergenrother, R.W. & Cooper, S.L. (1991) Effect of soft segment chemistry on the biostability of segmented polyurethanes: I. In vitro oxidation. *J. biomater. Mater. Res.*, **25**, 342–356
- Takami, Y., Nakazawa, T., Makinouchi, K., Glueck, J. & Nose, Y. (1997) Biocompatibility of alumina ceramic and polyethylene as materials for pivot bearings of a centrifugal blood pump. *J. biomater. Mater. Res.*, **36**, 381–386
- Takeda, S., Kakiuchi, H., Doi, H. & Nakamura, M. (1989) Cytotoxicity of pure metals. *Dent. Mater. Instrum.*, **8**, 648–652 (in Japanese)
- Talmor, M., Rothaus, K.O., Shannahan, E., Cortese, A.F. & Hoffman, L.A. (1995) Squamous cell carcinoma of the breast after augmentation with liquid silicone injection. *Ann. plast. Surg.*, **34**, 619–623
- Tang, L., Lucas, A.H. & Eaton, J.W. (1993) Inflammatory responses to implanted polymeric biomaterials: role of surface-adsorbed immunoglobulin G. *J. Lab. clin. Med.*, **122**, 292–300
- Tang, L., Ugarova, T.P., Plow, E.F. & Eaton, J.W. (1996) Molecular determinants of acute inflammatory responses to biomaterials. *J. clin. Invest.*, **97**, 1329–1334
- Taninger, M., Pasquini, R., Tanzi, M.C. & Bonatti, S. (1992) Genotoxicity of *N*-acryloyl-*N'*-phenylpiperazine, a redox activator for acrylic resin polymerization. *Mutat. Res.*, **282**, 99–105
- Taninger, M., Pasquini, R. & Bonatti, S. (1993) Genotoxicity analysis of *N,N*-dimethylaniline and *N,N*-dimethyl-*p*-toluidine. *Environ. mol. Mutagen.*, **21**, 349–356
- Taylor, R.B. & Kennan, J.J. (1996) <sup>29</sup>Si NMR and blood silicon levels in silicone gel breast implant recipients. *Magn. Reson. Med.*, **36**, 498–499
- Tayton, K.J.J. (1980) Ewing's sarcoma at the site of a metal plate. *Cancer*, **45**, 413–415
- Tengvall, P., Lundström, I., Sjöqvist, L., Elwing, H. & Bjursten, L.M. (1989) Titanium-hydrogen peroxide interaction: model studies of the influence of the inflammatory response on titanium implants. *Biomaterials*, **10**, 166–175
- Terry, M.B., Skovron, M.L., Garbers, S., Sonnenschein, E. & Toniolo, P. (1995) The estimated frequency of cosmetic breast augmentation among US women, 1963 through 1988. *Am. J. public Health*, **85**, 1122–1124
- Testa, J.R., Carbone, M., Hirvonen, A., Khalili, K., Krynska, B., Linnainmaa, K., Pooley, F.D., Rizzo, P., Rusch, V. & Xiao, G.-H. (1998) A multi-institutional study confirms the presence and expression of simian virus 40 in human malignant mesotheliomas. *Cancer Res.*, **58**, 4505–4509
- Theegarten, D., Sardisong, F. & Philippou, S. (1995) Malignant fibrous histiocytoma associated with total hip replacement. *Chirurg.*, **66**, 158–161 (in German)
- Therapeutic Goods Administration (1998) *Australian Medical Device Requirements Version 4 under the Therapeutic Goods Act 1989*, Canberra, Commonwealth Department of Health and Family Series
- Thies, O. (1936) Sarcoma after war injury. *Z. Chir.*, **63**, 1763–1770 (in German)

- Thomassen, M.J., Buoen, L.C. & Brand, K.G. (1975) Foreign-body tumorigenesis: number, distribution, and cell density of preneoplastic clones. *J. natl Cancer Inst.*, **54**, 203–207
- Thompson, J.R. & Entin, S.D. (1969) Primary extraskeletal chondrosarcoma. Report of a case arising in conjunction with extrapleural Lucite ball plombage. *Cancer*, **23**, 936–939
- Thompson, G.J. & Puleo, D.A. (1996) Ti-6Al-4V ion solution inhibition of osteogenic cell phenotype as a function of differentiation timecourse *in vitro*. *Biomaterials*, **17**, 1949–1954
- Thun, M.J., Baker, D.B., Steenland, K., Smith, A.B., Halperin, W. & Berl, T. (1985) Renal toxicity in uranium mill workers. *Scand. J. Work Environ. Health*, **11**, 83–90
- Thyssen, J., Kimmerle, G., Dickhaus, S., Emminger, E. & Mohr, U. (1978) Inhalation studies with polyurethane foam dust in relation to respiratory tract carcinogenesis. *J. environ. Pathol. Toxicol.*, **1**, 501–508
- Tien, J.K. & Howson, T.E. (1981) Nickel and nickel alloys. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 15, 3rd Ed., New York, John Wiley, pp. 787–801
- Tigges, S., Stiles, R.G. & Roberson, J.R. (1994) Case report—aggressive granulomatosis complicating knee arthroplasty. *Can. Assoc. Radiol. J.*, **45**, 310–313
- Timberlake, G.A. & Looney, G.R. (1986) Adenocarcinoma of the breast associated with silicone injections. *J. surg. Oncol.*, **32**, 79–81
- Timchalk, C., Smith, F.A. & Bartels, M.J. (1994) Route-dependent comparative metabolism of [<sup>14</sup>C]toluene 2,4-diisocyanate and [<sup>14</sup>C]toluene 2,4-diamine in Fischer 344 rats. *Toxicol. appl. Pharmacol.*, **124**, 181–190
- Tinkelman, D.C. & Tinkelman, C.L. (1979) An unusual etiology of contact urticaria. *Pediatrics*, **63**, 339
- Tinkler, J. (1995) The impact of European directives. *J. Heart Valve Dis.*, **4**, S10–S12
- Tinkler, J.J.B., Campbell, H.J., Senior, J.M. & Ludgate, S.M. (1993) *Evidence for an Association between the Implantation of Silicones and Connective Tissue Disease* (MDD Report MDD/92/42), London, Department of Health
- Tomás, H., Carvalho, G.S., Fernandes, M.H., Freire, A.P. & Abrantes, L.M. (1997) The use of rat, rabbit or human bone marrow derived cells for cytocompatibility evaluation of metallic elements. *J. Mater. Sci.: Materials in Medicine*, **8**, 233–238
- Tomatis, L. (1963) Studies in subcutaneous carcinogenesis with implants of glass and Teflon in mice. *Acta unio. int. contra Cancrum*, **19**, 607–611
- Tomatis L. (1966a) Subcutaneous carcinogenesis by <sup>14</sup>C and <sup>3</sup>H labelled polymethylmethacrylate films. *Tumori*, **52**, 165–172
- Tomatis, L. (1966b) Subcutaneous carcinogenesis by implants and by 7,12-dimethylbenz[a]-anthracene. *Tumori*, **52**, 1–16
- Tomatis, L. & Parmi, L. (1971) Effect of perinatal administration of 7,12-dimethylbenz(a)-anthracene on the later response to a subcutaneous Teflon implant. *Tumori*, **57**, 55–62
- Tomatis, L. & Shubik, P. (1963) Influence of urethane on subcutaneous carcinogenesis by ‘Teflon’ implants. *Nature*, **198**, 600–601

- Trampnau, Dr (1922) Contribution to knowledge of carcinoma of nose and pharyngeal cavity with particular consideration of their aetiology. *Passow-Schäfer Beitr. Anat. Physiol. Pathol. Ther.*, **18**, 268–276 (in German)
- Tricot, G.J.K., Naucke, S., Vaught, L., Vesole, D., Jagannath, S. & Barlogie, B. (1996) Is the risk of multiple myeloma increased in patients with silicone implants? *Curr. Topics Microbiol. Immunol.*, **210**, 357–359
- Troop, J.K., Mallory, T.H., Fisher, D.A. & Vaughn, B.K. (1990) Malignant fibrous histiocytoma after total hip arthroplasty. A case report. *Clin. Orthop. Rel. Res.*, **253**, 297–300
- Trosko, J.E., Chang, C.-C. & Netzloff, M. (1982) The role of inhibited cell-cell communication in teratogenesis. *Teratog. Carcinog. Mutag.*, **2**, 31–45
- Tsuchiya, T. (1998) Detection of tumor-promoting activities in biomaterials using *in vitro* cell culture methods. *Kobunshi Ronbunshu*, **55**, 314–322 (in Japanese)
- Tsuchiya, T. & Nakamura, A. (1995) A new hypothesis of tumorigenesis induced by biomaterials: inhibitory potentials of intercellular communication play an important role on the tumor-promotion stage. *J. long-term Effects med. Implants*, **5**, 233–242
- Tsuchiya, T., Hata, H. & Nakamura, A. (1995a) Studies on the tumor-promoting activity of biomaterials: inhibition of metabolic cooperation by polyetherurethane and silicone. *J. biomed. Mater. Res.*, **29**, 113–119
- Tsuchiya, T., Takahara, A. & Cooper, S.L. & Nakamura, A. (1995b) Studies on the tumor-promoting activity of polyurethanes: depletion of inhibitory action of metabolic cooperation on the surface of a polyalkyleneurethane but not a polyetherurethane. *J. biomed. Mater. Res.*, **29**, 835–841
- Tsuchiya, T., Nakaoka, R., Degawa, H. & Nakamura, A. (1996) Studies on the mechanisms of tumorigenesis induced by polyetherurethanes in rats: leachable and biodegradable oligomers involving the diphenylcarbamate structure acted as an initiator on the transformation of Balb 3T3 cells. *J. biomed. Mater. Res.*, **31**, 299–303
- Tsuchiya, T., Wang, C., Nakaoka, R. & Nakamura, A. (1998) A molecular mechanism of tumorigenesis of polyurethanes *in vivo* and *in vitro* (Abstract). *Proc. Am. Assoc. Cancer Res.*, **39**, 200
- Tsuchiya, T., Sayed M.A. & Nakamura, A. (1999) Tumor promoting mechanism of biomaterials: no involvement of mutation in cx43 gene in the tumorigenesis induced by polyurethanes *in vitro*. In: Ikura, K., Nagao, M., Masuda, S. & Sasalki, R., eds, *Proceedings of The JAACT/ESACT'98, Animal Cell Technology: Challenges for the 21st Century*, Dordrecht, Kluwer Academic Publishers, pp. 181–185
- Ulrich, H. (1983) Urethane polymers. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 23, 3rd Ed., New York, John Wiley, pp. 576–608
- Unfried, K., Kociok, N., Roller, M., Friedmann, J., Pott, F. & Dehnen, W. (1997) P53 mutations in tumours induced by intraperitoneal injection of crocidolite asbestos and benz[a]pyrene in rats. *Exp. Toxicol. Pathol.*, **49**, 181–187
- United States Fish & Wildlife Services (1989) Non-toxic Shot ,Federal Register 50, Code of Federal Regulations 20.134, Washington DC, US Government Printing Office, pp. 289–293

- Vallyathan, V. & Shi, X. (1997) The role of oxygen free radicals in occupational and environmental lung disease. *Environ. Health Perspect.*, **105** (Suppl. 1), 165–177
- Vallyathan, V., Castranova, V., Pack, D., Leonard, S., Shumaker, J., Hubbs, A.F., Shoemaker, D.A., Ramsey, D.M., Pretty, J.R., McLaurin, J.L., Khan, A. & Teass A. (1995) Freshly fractured quartz inhalation leads to enhanced lung injury and inflammation. *Am. J. respir. crit. Care Med.*, **152**, 1003–1009
- Van Bree, H., Verschooten, F., Hoorens, J. & Mattheeuws, D. (1980) Internal fixation of a fractured humerus in a dog and late osteosarcoma development. *Vet. Rec.*, **107**, 501–502
- van de Rijn, M., Barr, F.G., Xiong, Q.-B., Salhany, K.E., Fraker, D.L. & Fisher, C. (1997) Radiation-associated synovial sarcoma. *Hum. Pathol.*, **28**, 1325–1328
- van der List, J.J.J., van Horn, J.R., Slooff, T.J.J.H. & Naudin ten Cate, L. (1988) Malignant epithelioid hemangioendothelioma at the site of a hip prosthesis. *Acta orthop. scand.*, **59**, 328–330
- van Diest, P.J., Beekman, W.H. & Hage, J.J. (1998) Pathology of silicone leakage from breast implants. *J. clin. Pathol.*, **51**, 493–497
- van Dijken, J.W.V., Sjöström, S. & Wing, K. (1987) Development of gingivitis around different types of composite resin. *J. clin. Periodontol.*, **14**, 257–260
- Varpio, M., Warfvinge, J. & Norén, J.G. (1990) Proximo-occlusal composite restorations in primary molars: Marginal adaptation, bacterial penetration, and pulpal reactions. *Acta odontol. scand.*, **48**, 161–167
- Vasiliev, J.M., Olshevskaja, L.V., Raikhlin, N.T. & Ivanova, O.J. (1962) Comparative study of alterations induced by 7,12-dimethylbenz[a]anthracene and polymer films in the subcutaneous connective tissue of rats. *J. natl Cancer Inst.*, **28**, 515–589
- Visser, S.A., Hergenrother, R.W. & Cooper, S.L. (1996) Polymers. In: Ratner, B.D., Hoffman, A.S., Schoen, F.J. & Lemons, J.E., eds, *Biomaterials Science: An Introduction to Materials in Medicine*, San Diego, Academic Press, pp. 50–60
- Visuri, T. & Koskenvuo, M. (1991) Cancer risk after McKee-Farrar total hip replacement. *Orthopedics*, **14**, 137–142
- Visuri, T., Pulkkinen, P., Turula, K.B., Paavolainen, P. & Koskenvuo, M. (1994) Life expectancy after hip arthroplasty: case-control study of 1018 cases of primary arthrosis. *Acta orthop. scand.*, **65**, 9–11
- Visuri, T., Pukkala, E., Paavolainen, P., Pulkkinen, P. & Riska, E.B. (1996) Cancer risk after metal on metal and polyethylene on metal total hip arthroplasty. *Clin. Orthop. rel. Res.*, **329** (Suppl.), S280–S289
- Vives, P., Sevestre, H., Grodet, H. & Marie, F. (1987) Case report on malignant fibrous histiocytoma after total hip arthroplasty. *Rev. Chir. orthop.*, **73**, 407–409 (in French)
- Vollmann, J. (1938) Animal experiments with intraosseous arsenic, chromium and cobalt implants. *Schweiz. Z. Allg. Pathol. Bakteriol.*, **1**, 440–443 (in German)
- Vollmar, J. & Ott, G. (1961) Experimental tumour formation by surgical plastics. *Langenbecks Arch. klin. Chir.*, **298**, 729–736 (in German)

- Waalkes, M.P., Rehm, S., Kasprzak, K.S. & Issaq, H.J. (1987) Inflammatory, proliferative, and neoplastic lesions at the site of metallic identification ear tags in Wistar [Crl:(WI)BR] rats. *Cancer Res.*, **47**, 2445–2450
- Waegemaekers, T.H.J.M. & Bensink, M.P.M. (1984) Non-mutagenicity of 27 aliphatic acrylate esters in the Salmonella-microsome test. *Mutat. Res.*, **137**, 95–102
- Wagner, M., Klein, C.L., van Kooten, T.G. & Kirkpatrick, C.J. (1998) Mechanisms of cell activation by heavy metal ions. *J. biomed. Mater. Res.*, **42**, 443–452
- Walter, J.B. & Chiaramonte, L.G. (1965) Tissue responses of the rat to implanted Ivalon, Etheron and Polyfoam plastic sponges. *Br. J. Surg.*, **52**, 49–54
- Wang, X., Christiani, D.C., Wiencke, J.K., Fischbein, M., Xu, X., Cheng, T.J., Mark, E., Wain, J.C. & Kelsey, K.T. (1995) Mutations in the p53 gene in lung cancer are associated with cigarette smoking and asbestos exposure. *Cancer Epidemiol. Biomarkers Prev.*, **4**, 543–548
- Wang, B.H., Chang, B.W., Sargeant, R. & Manson, P.N. (1998) Late capsular hematoma after breast reconstruction with polyurethane-covered implants. *Plast. Reconstr. Surg.*, **102**, 450–452
- Wanivenhaus, A., Lintner, F., Wurnig, C. & Missaghi-Schinzl, M. (1991) Long-term reaction of the osseous bed around silicone implants. *Arch. orthop. Trauma Surg.*, **110**, 146–150
- Wapner, K.L. (1991) Implications of metallic corrosion in total knee arthroplasty. *Clin. Orthop. Rel. Res.*, **271**, 12–20
- Ward, J.J., Thornbury, D.D., Lemons, J.E. & Dunham, W.K. (1990) Metal-induced sarcoma. A case report and literature review. *Clin. Orthop. Rel. Res.*, **252**, 299–306
- Warheit, D.B., Hansen, J.F., Yuen, I.S., Kelly, D.P., Snajdr, S.I. & Hartsky, M.A. (1997) Inhalation of high concentrations of low toxicity dusts in rats results in impaired pulmonary clearance mechanisms and persistent inflammation. *Toxicol. appl. Pharmacol.*, **145**, 10–22
- Waring, R.H. & Pheasant, A.E. (1976) Some phenolic metabolites of 2,4-diaminotoluene in the rabbit, rat and guinea-pig. *Xenobiotica*, **6**, 257–262
- Wataha, J.C., Hanks, C.T. & Craig, R.G. (1991) The *in vitro* effects of metal cations on eukaryotic cell metabolism. *J. biomed. Mater. Res.*, **25**, 1133–1149
- Wataha, J.C., Hanks, C.T., Strawn, S.E. & Fat, J.C. (1994) Cytotoxicity of components of resins and other dental restorative materials. *J. oral Rehabilitation*, **21**, 453–462
- Weber, P.C. (1986) Epitheloid sarcoma in association with total knee replacement. A case report. *J. Bone Joint Surg.*, **68**, 824–826
- Weinberg, D.S. & Maini, B.S. (1980) Primary sarcoma of the aorta associated with a vascular prosthesis: a case report. *Cancer*, **46**, 398–402
- Weiss, S.W., ed. (1994) *Histological Typing of Soft Tissue Tumours. International Histological Classification of Tumours*, 2nd Ed., Berlin, Springer–Verlag
- Weiss, S.W. (1996) Lipomatous tumors. *Monogr. Pathol.*, **38**, 207–239
- Weiss, S.W. & Enzinger, F.M. (1978) Malignant fibrous histiocytoma: an analysis of 200 cases. *Cancer*, **41**, 2250–2266
- Weiss, E. & Krusen, F.H. (1922) Foreign body in the lung for forty-five years complicated by abscess and tumor formation. *J. Am. med. Assoc.*, **78**, 506–507

- Weiss, W.M., Riles, T.S., Gouge, T.H. & Mizrachi, H.H. (1991) Angiosarcoma at the site of a Dacron vascular prosthesis: a case report and literature review. *J. vasc. Surg.*, **14**, 87–91
- Welgos, R.J. (1982) Polyamide plastics. In: Mark, H.F., Othmer, D.F., Overberger, C.G. & Seaborg, G.T., eds, *Kirk-Othmer Encyclopedia of Chemical Technology*, Vol. 18, 3rd Ed., New York, John Wiley, pp. 406–425
- Wenig, B.M., Heffner, D.K., Oertel, Y.C. & Johnson, F.B. (1990) Teflonomas of the larynx and neck. *Hum. Pathol.*, **21**, 617–623
- Wening, J.V., Marquardt, H., Katzer, A., Jungbluth, K.H. & Marquardt, H. (1995) Cytotoxicity and mutagenicity of Kevlar®: an *in vitro* evaluation. *Biomaterials*, **16**, 337–340
- Wennberg, A., Mjör, I.A. & Hensten-Pettersen, A. (1983) Biological evaluation of dental restorative materials—a comparison of different test methods. *J. biomed. Mater. Res.*, **17**, 23–36
- Wever, D.J., Veldhuizen, A.G., Sanders, M.M., Schakenraad, J.M. & van Horn, J.R. (1997) Cytotoxic, allergic and genotoxic activity of a nickel–titanium alloy. *Biomaterials*, **18**, 1115–1120
- Wiklund, T.A., Blomqvist, C.P., Raty, J., Elomaa, I., Rissanen, P. & Miettinen, M. (1991) Post-irradiation sarcoma. Analysis of a nationwide cancer registry material. *Cancer*, **68**, 524–531
- Wilkinson, J.D. (1989) Nickel allergy and orthopedic prostheses. In: Maibach, H.I. & Menne, T., eds, *Nickel and the Skin: Immunology and Toxicology*, Boca Raton, FL, CRC Press, pp. 187–193
- Willert, H.G., Buchhorn, G.H.H., Göbel, D., Köster, G., Schaffner, S., Schenk, R. & Semlitsch, M. (1996) Wear behavior and histopathology of classic cemented metal on metal hip endoprostheses. *Clin. Orthop. rel. Res.*, **329** (Suppl.), S160–S186
- Williams, D.F. & Roaf, R. (1973) *Implants in Surgery*, London, W.B. Saunders, pp. 5–23, 309–310, 416–417, 460–467
- Wines, R.D. (1973) Possible hazard of polymethyl methacrylate (Letter to the Editor). *Br. med. J.*, **iii**, 409
- Wink, D.A., Vodovotz, Y., Laval, J., Laval, F., Dewhirst, M.W. & Mitchell, J.B. (1998) The multifaceted roles of nitric oxide in cancer. *Carcinogenesis*, **19**, 711–721
- Working Group on Dental Amalgam (1997) *Dental Amalgam and Alternative Restorative Material: An Update Report to the Environmental Health Policy Committee*, Washington DC, US Department of Health and Human Services
- Wrangsjö, K., Wahlberg, J.E. & Axelsson, I.G.K. (1988) IgE-mediated allergy to natural rubber in 30 patients with contact urticaria. *Contact Derm.*, **19**, 264–271
- Wroblewski, B.M. (1997) Wear of the high-density polyethylene socket in total hip arthroplasty and its role in endosteal cavitation. *Proc. Instn. Mech. Engrs.*, **211**, 109–118
- Yamamoto, A., Honma, R. & Sumita, M. (1998) Cytotoxicity evaluation of 43 metal salts using murine fibroblasts and osteoblastic cells. *J. biomed. Mater. Res.*, **39**, 331–340
- Yoda, R. (1998) Elastomers for biomedical applications. *J. biomater. Sci. Polymer Ed.*, **9**, 561–626
- Younkin, C.N. (1974) Multiphase MP35N alloy for medical implants. *J. biomed. Mater. Res.*, **5**, 219–226

- Yourtee, D.M., Tong, P.Y., Rose, L.A., Eick, J.D., Chappelow, C.C. & Bean, T.A. (1994) The effect of spiroorthocarbonate volume modifier co-monomers on the in vitro toxicology of trial non-shrinking dental epoxy co-polymers. *Res. Comm. mol. Pathol. Pharmacol.*, **86**, 347–360
- Zafiracopoulos, P. & Rouskas, A. (1974) Breast cancer at site of implantation of pace maker generator (Letter to the Editor). *Lancet*, **i**, 1114
- Zajdela, F. (1966) Production of subcutaneous sarcomas in the rat by cellulose membranes of known porosity. *Bull. Cancer*, **53**, 401–408 (in French)
- Zanella, C.L., Posada, J., Tritton, T.R. & Mossman, B.T. (1996) Asbestos causes stimulation of the extracellular signal-regulated kinase 1 mitogen-activated protein kinase cascade after phosphorylation of the epidermal growth factor receptor. *Cancer Res.*, **56**, 5334–5338
- Zeiger, E., Anderson, B., Haworth, S., Lawlor, T., Mortelmans, K. & Speck, W. (1987) *Salmonella* mutagenicity tests: III Results from the testing of 225 chemicals. *Environ. Mol. Mutagen.*, **9** (Suppl 9), 1–110
- Zhang, Z., King, M.W., Guidoin, R., Therrien, M., Doillon, C., Diehl-Jones, W.L. & Huebner, E. (1994a) *In vitro* exposure of a novel polyesterurethane graft to enzymes: a study of the biostability of the Vasugraft® arterial prosthesis. *Biomaterials*, **15**, 1129–1144
- Zhang, Z., King, M.W., Marois, Y., Marois, M. & Guidoin, R. (1994b) *In vivo* performance of the polyesterurethane Vasugraft® prosthesis implanted as a thoracoabdominal bypass in dogs: an exploratory study. *Biomaterials*, **15**, 1099–1112
- Zhang, G., Latour, R.A., Jr, Kennedy, J.M., Del Schutte, H., Jr & Friedman, R.J. (1996) Long-term compressive property durability of carbon fibre-reinforced polyetheretherketone composite in physiological saline. *Biomaterials*, **17**, 781–789