

Mathematical Modeling of Tumor Growth Reference List

1955

R.H. Thomlinson and L.J. Gray, The histological structure of some human lung cancers and the possible implications for radiotherapy, *Brit. J. Cancer* **9**(1955), 539-549.

1966

A.C. Burton, Rate of growth of solid tumours as a problem of diffusion, *Growth* **30**(1966), 157-176.

1970

K.S.S. Iyer and V.N. Saksena, A stochastic model for the growth of cells in cancer, *Biometrics* **26**(1970), 401-410.

1972

H.P. Greenspan, Models for the growth of a solid tumor by diffusion, *Stud. Appl. Math.* **52**(1972), 317-340.

1973

L. Glass, Instability and mitotic patterns in tissue growth, *J. Dynam. Sys. Meas. Cont.* **95**(1973), 324-327.

J. Aroesty *et al.*, Tumor growth and chemotherapy: mathematical methods, computer simulations, and experimental foundations, *Math. Biosciences* **17**(1973), 243-300.

1974

R. Wette, I.N. Katz and E.Y. Rodin, Stochastic processes for solid tumor kinetics I. Surface regulated growth, *Math. Biosciences* **19**(1974), 231-255.

R. Wette, I.N. Katz and E.Y. Rodin, Stochastic processes for solid tumor kinetics II. Diffusion-regulated growth, *Math. Biosciences* **19**(1974), 311-338.

1975

A.S. Deakin, Model for the growth of a solid *in vitro* tumor, *Growth* **39**(1975), 159-165.

W.B. Looney *et al.*, Solid tumor models for the assessment of different treatment modalities: I: Radiation-induced changes in growth rate characteristics of a solid tumor model, *PNAS* **72**(1975), 2662-2666.

1976

G.M. Saidel, L.A. Liotta and J. Kleinerman, System dynamics of a metastatic process from an implanted tumor, *J. Theor. Biol.* **56**(1975), 417-434.

L.A. Liotta, G.M. Saidel and J. Kleinerman, Stochastic model of metastases formation, *Biometrics* **32**(1976), 535-550.

R.M. Shymko and L. Glass, Cellular and geometric control of tissue growth and mitotic instability, *J. Theor. Biol.* **63**(1976), 355-374.

H.P. Greenspan, On the growth and stability of cell cultures and solid tumors, *J. Theor. Biol.* **56**(1976), 229-242.

1977

D.L.S. McElwain and P.J. Ponzio, A model for the growth of a solid tumor with non-uniform oxygen consumption, *Math. Bioscience* **35**(1977), 267-279.

G. G. Steel, **Growth Kinetics of Tumours**, Clarendon Press, 1977.

1978

D.L.S. McElwain and L.E. Morris, Apoptosis as a volume loss mechanism in mathematical models of solid tumor growth, *Math. Biosciences* **39**(1978), 147-157.

R.J. Gratton, D.R. Appleton and M.K. Alwiswasy, The measurement of tumour growth rates in **Biomathematics and Cell Kinetics**, edited by A..J. Valleron and P.D.M. Macdonald, Elsevier, 1978, pp.325-331.

1980

W. Duchting and G. Dehl, Spread of cancer cells in tissue: modeling and simulation, *Int. J. Bio-Med. Computing* **11**(1980), 175-195.

1981

W. Duchting and T. Vogelsaenger, Three-dimensional pattern generation applied to spheroidal tumor growth in a nutrient medium, *Int. J. Bio-Med. Computing* **12**(1981), 377-392.

1984

R. Lefever and T. Erneaux, On the growth of cellular tissues under constant and fluctuating environmental conditions in **Nonlinear Electrodynamics in Biological Systems**, edited by W.R. Adey and A. F. Lawrence, Plenum Press, 1984, pp. 287-305.

1986

J.A. Adams, A simplified mathematical model of tumor growth, *Math. Biosciences* **81**(1986), 229-244.

1987

J.A. Adams, A mathematical model of tumor growth. II. Effects of geometry and spatial non-uniformity on stability, *Math. Biosciences* **86**(1987), 183-211.

J.A. Adams, A mathematical model of tumor growth. III. Comparison and experiment, *Math. Biosciences* **86**(1987), 213-227.

1988

T.E. Wheldon, **Mathematical Models in Cancer Research**, Adam Hilger, 1988.

R.M. Sutherland, Cell and environment interactions in tumor microregions: the multicell spheroid model, *Science* **240**, No. 4849(1988), 177-184.

1990

S.A. Maggelakis and J.A. Adams, Mathematical model of prevascular growth of a spherical carcinoma, *Math. Comp. Mod.* **13**(1990), 23-38.

W. Duchting, Tumor-growth simulation, *Comp. Graphics* **14**(1990), 505-508.

1991

M.A.J. Chaplain and A.M. Stuart, A mathematical model for the diffusion of tumour angiogenesis factor into the surrounding tissue, *IMA J. Math. Appl. Med. Biol.* **8**(1991), 191-220.

1992

J.A. Serratt and M.A. Nowak, Oncogenes, anti-onogenes and immune response to cancer: a mathematical model, *Proc. Roy. Soc. Lond. B* **248**(1992), 261-271.

1993

N.F. Britton and M.A.J. Chaplain, A qualitative analysis of some models of tissue growth, *Math. Biosciences*, **89**(1993), 77-89.

M.A.J. Chaplain and B.D. Sleeman, Modelling the growth of solid tumours and incorporating a method for their classification using nonlinear elasticity theory, *J. Math. Biol.* **31**(1993), 431-479.

J.A. Adams and R.D. Noren, Equilibrium model of a vascularized spherical carcinoma with central necrosis-some properties of the solution, *J. Math. Biol.* **31**(1993), 735-745.

N.F. Britton and M.A.J. Chaplain, A qualitative analysis of some models of tissue growth, *Math. Biosciences* **113**(1993), 77-89.

J. Smolle and H. Stettner, Computer simulation of tumour cell invasion by a stochastic growth model, *J. Theor. Biol.* **160**(1993), 63-72.

A.S. Qui *et al.*, A cellular automation model of cancerous growth, *J. Theor. Biol.* **161**(1993), 1-12.

S. Markovitch, The particular roll of cell loss in tumor growth, *Math. Comp. Mod.* **18**(1993), 83-89.

1994

S. Michelson and J.T. Leith, Dormancy, regression, and recurrence: Towards a unifying theory of tumor growth control, *J. Theor. Biol.* **169**(1994), 327-338.

M. Marusic, Z. Bajzer, and J.P. Freyer, tumor growth *in vivo* and as multicellular spheroids compared by mathematical models, *Bull. Math. Biol.* **56**(1994), 617-631.

M. Marysic *et al.*, Tumor growth *in vivo* and as multicellular spheroids compared by mathematical models, *Bull. Math. Biol.* **56**(1994), 617-631.

1995

H.M. Byrne and M.A.J. Chaplain, Growth of nonnecrotic tumors in the presence and absence of inhibitors, *Math. Biosciences* **130**(1995), 151-181.

P. Tracqui, From passive diffusion to active cellular migration in mathematical models of tumor invasion, *Acta Biotheor.* **43**(1995), 443-464.

P. Tracqui *et al.*, A mathematical model of glioma growth: The effect of chemotherapy on spatio-temporal growth, *Cell Prolif.* **28**(1995), 17-31.

I.P.M. Tomlinson and W.F. Bodmer, Failure of programmed cell death and differentiation as causes of tumors: some simple mathematical models, *PNAS* **92**(1995), 11130-11134.

D. Drasdo, R. Kree and J.S. McCaskill, Monte Carlo approach to tissue-cell populations, *Physical Rev. E* **52**(1995), 6635-6657.

M.A.J. Chaplain *et al.*, A mathematical-analysis of a model for tumor angiogenesis, *J. Math. Biol.* **33**(1995), 744-770.

1996

M.E. Orme and M.A.J. Chaplain, A mathematical model of the first steps of tumour-related angiogenesis: Capillary sprout formation and secondary branching, *J. Math. Appl. Med. Biol.* **13**(1996), 73-98.

R.A. Gatenby and E.T. Gawlinski, A reaction-diffusion model of cancer invasion, *Cancer Res.* **56**(1996), 5745-5753.

M.A.J. Chaplain, Avascular growth, angiogenesis and vascular growth in solid tumours: The mathematical modeling of the stages of tumour development, *Math. Comp. Mod.* **23**(1996), 47-87.

H.M. Byrne and M.A.J. Chaplain, Modeling the role of cell-cell adhesion in the growth and development of carcinomas, *Math. Comp. Mod.* **24**(1996), 1-17.

J.A. Adams, Effects of vascularization on lymphocyte/tumor cell dynamics: qualitative features, *Math. Comp. Mod.* **23**(1996), 1-10.

G. Forni, Tumor-host relationship: The viewpoint of an immunologist towards applied mathematicians, *Math. Comp. Mod.* **23**(1996), 89-94.

Z. Bajzer, M. Marusic, and S. Vuk-pavlovic, Conceptual frameworks for mathematical modeling of tumor growth dynamics, *Math. Comp. Mod.* **23**(1996), 31-46.

M.E. Orme and M.A.J. Chaplain, A mathematical model of the first steps of tumour-related angiogenesis: Capillary sprout formation and secondary branching, *IMA J. Math. Appl. Med. Biol.* **13**(1996), 73-98.

J. Smolle *et al.*, Cellular invasion without cellular motility in a stochastic growth model, *Anal. Cell. Path.* **10**(1996), 37-43.

A. Perumpanani *et al.*, Biological inferences from a mathematical model for malignant invasion, *Invasion Metastasis* **16**(1996), 209-211.

D. Manoussaki *et al.*, A mechanical model for the formation of vascular networks in vitro, *Acta Biotheor.* **44**(1996), 271-282.

V. Velanovich, Fractal analysis of mammographic lesions: a feasibility study quantifying the difference between benign and malignant masses, *Am. J. Med. Sci.* **311**(1996), 211-214.

W. Duchting, T. Ginsberg, and W. Ulmer, Modelling of tumor growth and treatment *ZAMP* **76**(1996), 347-350.

W. Duchting, W. Ulmer, and T. Ginsberg, Cancer: A challenge for control theory and computer modeling *Eur. J. Cancer* **32A**(1996), 1283-1292.

L. Preziosi, From population dynamics to modeling the competition between tumors and immune system, *Math. Comp. Mod.* **23**(1996), 135-152.

S.A. Maggelakis, The effects of tumor angiogenesis factor (TAF) and tumor inhibitor factors (TIFs) on tumor vascularization: a mathematical model, *Math. Comp. Mod.* **23**(1996), 121-133.

A. Yu. Yakovlev, Threshold models of tumor recurrence, *Math. Comp. Mod.* **23**(1996), 153-164.

R. A. Gatenby, Altered glucose metabolism and invasive tumor phenotype: insights provided through mathematical models (Review), *Int. J. Oncol.* **8**(1996), 597-601.

D.E. Woodward *et al.*, A mathematical model of glioma growth: the effect of extent of surgical resection, *Cell Prolif.* **29**(1996), 269-288.

1997

M.E. Orme and M.A.J. Chaplain, Two-dimensional models of tumour angiogenesis and anti-angiogenesis strategies, *IMA J. Math. Appl. Med. Biol.* **14**(1997), 189-205.

J.P. Ward and J.R. King, Mathematical modeling of avascular-tumour growth, *IMA J. Math. Appl. Med. Biol.* **14**(1997), 36-69.

H.M Byrne, The importance of intercellular adhesion in the development of carcinomas, *IMA J. Math. Appl. Med. Biol.* **14**(1997), 305-323.

H.M Byrne and M.A.J. Chaplain, Free boundary value problems associated with the growth and development of multicellular spheroids, *Eur. J. Appl. Math.* **8**(1997), 639-658.

J.A. Adams, General aspects of modeling tumor growth and immune response in **A Survey of Models for Tumor-Immune System Dynamics**, Birkhauser, 1997.

H.M. Byrne, The effect of time delays on the dynamics of avascular tumor growth, *Math. Biosciences* **144**(1997), 83-117.

H.M. Byrne and S.A. Gourley, The role of growth factors in solid tumour growth, *Math. Comp. Mod.* **26**(1997), 35-55.

A.J. Perumpanani, J.A. Sherratt, and J. Norbury, Mathematical modeling of capsule formation and multinodularity in benign tumour growth, *Nonlinearity* **10**(1997), 1599-1614.

J. Smolle, Fractal tumor stromal border in a nonequilibrium growth model, *Anal. Quant. Cytol. Histol.* **20**(1997), 7-13.

M.I.G. Bloor and M.J. Wilson, A mathematical model of micrometastasis, *J. Theor. Med.* **1**(1997), 153-168.

H.G. Othmer and A. Stevens, Aggregation, blowup, and collapse: The ABC's of taxis in reinforced random walks, *SIAM J. Appl. Math.* **57**(1997), 1044-1081.

R. Demicheli *et al.*, Proposal for a new model of breast cancer metastatic development, *Ann. Oncology* **8**(1997), 1075-1080.

P.K. Burgess *et al.*, The interaction of growth rates and diffusion coefficients in a three-dimensional model of gliomas, *J. Neuropathol. Exp. Neurol.* **56**(1997), 704-713.

1998

C.P. Please, G. Pettet, and D.L.S. McElwain, A new approach to modelling the formation of necrotic regions in tumours, *Appl. Math. Lett.* **11**(1998), 89-94.

S.C. Ferreira *et al.*, A growth model for primary cancer, *Physica A* **261**(1998), 569-580.

1999

A. Friedman and F. Reitch, Analysis of a mathematical model for the growth of tumors, *J. Math. Biol.* **38**(1999), 262-284.

S. Chi and A. Friedman, Analysis of a mathematical model of Protocell, *J. Math. Anal. Appl.* **236**(1999), 171-206.

M.I.G. Bloor and M.J. Wilson, The non-uniform spatial development of a micrometastasis, *J. Theor. Med.* **2**(1999), 55-71.

J.P. Ward and J.R. King, Mathematical modeling of avascular-tumour growth II: modeling growth saturation, *IMA J. Math. Appl. Med. Biol.* **16**(1999), 171-211.

A.J. Perumpanani *et al.*, A two parameter family of traveling waves with a singular barrier arising from the modeling of extracellular matrix mediated cellular invasion, *Physica D* **126**(1999) 145-159.

E.I. Stott *et al.*, Stochastic simulation of benign avascular tumour growth using the Potts model, *Math. Comp. Mod.* **30**(1999), 183-198.

S.D. Webb, J.A. Sherratt and R.G. Fish, Mathematical modeling of tumour acidity: regulation of intracellular pH, *J. Theor. Biol.* **196**(1999), 237-250.

S.D. Webb, J.A. Sherratt and R.G. Fish, Alterations in proteolytic activity at low pH and its association with invasion: a theoretical model, *Clin. Exper. Metastasis* **17**(1999), 397-407.

2000

E.K. Afenya and C.P. Calderon, Diverse ideas on the growth kinetics of disseminated cancer cells, *Bull. Math. Biol.* **62**(2000), 527-542.

A.R.A. Anderson *et al.*, Mathematical modelling of tumour invasion and metastasis, *J. Theor. Med.* **2**(2000), 129-154.

A. Bertuzzi and A. Gandolfi, Cell kinetics in a tumour cord, *J. Theor. Biol.* **204**(2000), 587-599.

A.R. Kansal *et al.*, Simulated brain tumor growth dynamics using a three-dimensional cellular automation, *J. Theor. Biol.* **203**(2000), 367-382.

R.B. Dickinson, A generalized transport model for biased cell migration in an anisotropic environment, *J. Math. Biol.* **40**(2000), 97-135.

T.L. Jackson and H.M. Byrne, A mathematical model to study the effects of drug resistance and vasculature on the response of solid tumours to chemotherapy, *Math. Biosciences* **164**(2000), 17-38.

A.R.A. Anderson *et al.*, Mathematical modeling of tumor invasion and metastasis, *J. Theor. Med.* **2**(2000), 129-154.

D. Drasdo, A Monte-Carlo approach to growing solid nonvascular tumours, In **Networks in Biology and Medicine**, Springer, 2000.

K. Ferrante *et al.*, Parameter estimation in a Gompertzian stochastic model for tumor growth, *Biometrics* **56**(2000), 1076-1081.

A.F. Jones *et al.*, A mathematical model of the stress induced during avascular tumor growth, *J. Math. Biol.* **40**(2000), 473-499.

M.A.J. Chaplain, Mathematical modeling of angiogenesis, *J. Neuro Oncology* **50**(2000), 37-51.

K.R. Swanson *et al.*, A quantitative model for differential motility of gliomas in gray and white matter, *Cell. Prolif.* **33**(2000), 317-330.

2001

R.K. Sachs *et al.*, Simple ODE models of tumor growth and anti-angiogenic or radiation treatment, *Math. Comp. Mod.* **33**(2001), 1297-1305.

A.A. Patel *et al.*, A cellular automation model of early tumor growth and invasion, *J. Theor. Biol.* **213**(2001), 315-331.

T.S. Deisboeck *et al.*, Pattern of self-organization in tumor systems: complex growth dynamics in a novel brain tumors spheroid model, *Cell Prolif.* **34**(2001), 115-134.

H.A. Levine *et al.*, Mathematical modeling of the onset of capillary formation initiating angiogenesis, *J. Math. Biol.* **42**(2001), p. 195-238.

S. Flores-Ascencio *et al.*, A three dimensional growth model for primary cancer, **MSMW'2001 Symposium Proceedings**, Kharkov, Ukraine, June 4-9, 2001, 241-243.

J.A. Sherratt and M.A.J. Chaplain, A new mathematical model for avascular tumour growth, *J. Math. Biol.* **43**(2001), 291-312.

M.A.J. Chaplain *et al.*, Spatio-temporal pattern formation on spherical surfaces: numerical simulation and application to solid tumour growth, *J. Math. Biol.* **42**(2001), 387-423.

T.S. Deisbrock *et al.*, Pattern of self-organization in tumour systems: complex growth dynamics in a novel brain spheroid model, *Cell. Prolif.* **34**(2001), 115-134.

2002

A. Stepanou and P. Tracqui, Cytomechanics to cell deformations and migrations: from models to experiments, *C.R. Biologies* **325**(2002), 295-308.

D. Ambrosi and L. Preziosi, On the closure of mass balance models for tumour growth, *Math. Mod. Meth. Appl. Sci.* **12**(2002), 737-754.

A. Bertuzzi *et al.*, Cell kinetics in tumour cords studied by a model with variable cell cycle length, *Math. Biosciences* **177**(2002), 103-125.

S.R. Lubkin and T. Jackson, Multiphase mechanics of capsule formation in tumors, *J. Biomech. Eng.* **124**(2002), 237-243.

C.J.W. Breward *et al.*, The role of cell-cell interactions in a two-phase model of avascular tumour growth, *J. Math. Biol.* **45**(2002), 125-152.

- S. Dormann and A. Deutsch, Modeling of self-organized avascular tumor growth with a hybrid cellular automaton, *In Silico Biology* **2**(2002).
- S. Turner and J.A. Sherratt, Intercellular adhesion and cancer invasion: A discrete simulation using the extended Potts model, *J. Theoret. Biol.* **216**(2002), 85-100.
- J.M. Stewart, P. Broadbridge, and J.M. Goard, Symmetry analysis and numerical modeling of invasion by malignant tumour tissue, *Nonlinear Dynamics* **28**(2002), 175-193.
- D. Ambrosi and F. Mollica, On the mechanics of a growing tumor, *Int. J. Eng. Science* **40**(2002), 1297-1316.
- D. Ambrosi *et al.*, Modelling tumor progression, heterogeneity and immune competition, *J. Theor. Med.* **4**(2002), 51-65.
- J. Moreira and A. Deutsch, Cellular automation models of tumor development: a critical review, *Adv. Complex Systems* **5**(2002), 247-267.
- S.C. Ferreira *et al.*, Reaction-diffusion model for the growth of avascular tumor, *Physics Rev. E* **65**(2002), 021907: 1-8.
- G.F. Webb, The steady state of a tumor cord cell population, *J. Evol. Equat.* **2**(2002), 425-438.
- Y. Mansury *et al.*, Emerging patterns in tumor systems: simulating the dynamics of multicellular clusters with an agent-based spatial agglomeration model, *J. Theor. Biol.* **219**(2002), 343-370.
- L.M. Sander and T.S. Deisboeck, Growth patterns of microscopic brain tumors, *Phys. Rev. E* **66**(2002), 051901.
- K.R. Swanson *et al.*, Quantifying efficacy of chemotherapy of brain tumors (gliomas) with homogeneous and heterogeneous drug delivery, *Acta. Biotheor.* **50**(2002), 223-237.
- J.E. Schmitz *et al.*, A cellular automaton model of brain tumor treatment and resistance, *J. Theoret. Med.* **4**(2002), 223-239.
- S.R. McDougall *et al.*, Mathematical modeling of flow through vascular networks: implications for tumor-induced angiogenesis and chemotherapy strategies, *Bull. Math. Biol.* **64**(2002), 673-702.
- M. Scalerandi and B.C. Sansone, Inhibition of vascularization in tumor growth, *Phys. Rev. Lett.* **89**(2002), 218101.

2003

I.M.M. van Leeuwen, C. Zonneveld, and S.A.L.M. Kooijman, The embedded tumor: host physiology is important for the evaluation of tumour growth, *Brit. J. Cancer* **89**(2003), 2254-2263.

J.W. Durkee, P.P. Antich, M.A. Lewis, and P.W. Parkey, A fully coupled binary biochemical reaction-diffusion model with analytic solution, *J. Theor. Biol.* **221**(2003), 163-191.

J.I. Diaz and J.I. Telio, On the mathematical controllability in a simple growth tumors model by the internal localized action of inhibitors, *Nonlinear Analysis* **4**(2003), 109-125.

H.M. Byrne, J.R. King, D.L.S. McElwain, and L. Preziosi, A two-phase model of solid tumour growth, *Appl. Math. Lett.* **16**(2003), 567-573.

M.J. Plank and B.D. Sleeman, A reinforced random walk model of tumour angiogenesis and anti-angiogenic strategies, *Math. Med. Biol.* **20**(2003), 135-181.

A.R.A. Anderson, A hybrid discrete-continuum technique for individual-based migration models in **Polymer and Cell Dynamics-Multiscale Modeling and Numerical Simulations**, Birkhauser, 2003, 251-259.

A. Bertuzzi *et al.*, Regression and regrowth of tumour cords following single-dose anticancer treatment, *Bull Math. Biol.* **65**(2003), 903-931.

K.R. Swanson *et al.*, Virtual and real brain tumors: using mathematical modeling to quantify glioma growth and invasion, *J. Nuerol. Sci.* **216**(2003), 1-10.

K.R. Swanson *et al.*, Virtual resection of gliomas: Effects of location and extent of resection on recurrence, *Math. Comp. Mod.* **37**(2003), 1177-1190.

R.A. Gatenby and E.T. Gawlinski, The glycolytic phenotype in carcinogenesis and tumor invasion: insights through mathematical models, *Cancer Res.* **63**(2003), 3847-3854.

R.A. Gatenby and P.K. Maini, Mathematical oncology: cancer summed up, *Nature* **421**(2003), 321.

A.N. dos Reis *et al.*, The interplay between cell adhesion and environment rigidity in the morphology of tumors, *Physica A* **322**(2003), 546-554.

V. Cristini, J. Lowengrup, and Q. Nie, Nonlinear simulation of tumor growth, *J. Math. Biol.* **46**(2003), 191-224.

S.J. Franks *et al.*, Modelling the early growth of ductal carcinoma in situ of the breast, *J. Math. Biol.* **47**(2003), 424-452.

S.J. Franks *et al.*, Mathematical modeling of comedo ductal carcinoma in situ of the breast, *UMA J. Math. Med. Biol.* **20**(2003), 277-308.

P. Zhivkov and J. Waniewski, Modelling tumour-immunity interactions with different stimulation functions, *Int. J. Appl. Math. Comp. Sci.* **13**(2003), 307-315.

M. Villasana and A. Radunskaya, A delay differential equation model for tumor growth, *J. Math. Biol.* **47**(2003), 270-294.

S.C. Ferreira, Williams and Bjerknæs model with growth limitations, *Physica A* **317**(2003), 565-580.

D. Drasdo and S. Hohme, Individual-based approaches to birth and death in avascular tumors, *Math. Comp. Mod.* **37**(2003), 1163-1175.

T. Alarcon, H.M. Byrne and P.K. Maini, A cellular automaton model for tumour growth in inhomogeneous environment, *J. Theor. Biol.* **225**(2003), 257-274.

S. Habib *et al.*, Complex dynamics of tumors: modeling an emerging brain tumor system with coupled reaction-diffusion equations, *Phys. A* **327**(2003), 501-524.

Y. Mansury *et al.*, The impact of “search precision” in an agent-based tumor model, *J. Theor. Biol.* **224**(2003), 325-337.

J. Valenciano and M.A.J. Chaplain, Computing highly accurate solutions of tumour angiogenesis model, *Math. Mod. Meth. Appl. Sci.* **13**(2003), 747-766.

A. Bru *et al.*, The universal dynamics of tumour growth, *Biophys. J.* **85**(2003), 2948-2961.

M. Scalerandi *et al.* Avascular and vascular phases in tumor cords growth, *Math. Comp. Mod.* **37**(2003), 1191-1200.

2004

H. Hisao Honda, Masaharu Tanemura, and Tatsuzo Nagai, A three-dimensional vertex dynamics cell model of space-filling polyhedra simulating cell behavior in a cell aggregate, *J. Theor. Biol.* **226**(2004), 439-453.

M.A. Horn and G.F. Webb (editors), **Mathematical Models in Cancer**, a special issue based on the Cancer Workshop at Vanderbilt University, *Discrete Cont. Dynam. Sys. B*, **4**(2004).

- J.C. Arciero *et al.*, A mathematical model of tumor-immune evasion, *Discrete Cont. Dynam. Sys. B* **4**(2004), 39-58.
- N. Bellomo and A. Bellouquid, From a class of kinetic models to the macroscopic equations for multicellular systems in biology, *Discrete Cont. Dynam. Sys. B* **4**(2004), 59-80.
- N. Bellomo *et al.*, Multiscale modeling and mathematical problems related to tumour evolution and medical therapy, *J. Theor. Med.* **5**(2004), 111-136.
- J. Dyson *et al.*, The steady state of a maturity structured tumor cord cell population *Discrete Cont. Dynam. Sys. B* **4**(2004), 115-134.
- A. Friedman, A hierarchy of cancer models and their mathematical challenges, *Discrete Cont. Dynam. Sys. B* **4**(2004), 147-159.
- A. Bertuzzi *et al.*, Modelling cell populations with spatial structure: steady state and treatment-induced evolution of tumour cords, *Discrete Cont. Dynam. Sys. B* **4**(2004), 161-186.
- A. Bertuzzi *et al.*, A free boundary problem with unilateral constraints describing the evolution of a tumor cord und the influence of cell killing agents, *SIAM J. Math. Anal.* **36**(2004), 882-915.
- T.L. Jackson, A mathematical model of prostate tumor growth and androgen-independent relapse, *Discrete Cont. Dynam. Sys. B* **4**(2004), 187-201.
- Y. Kuang *et al.*, Biological stoichiometry of tumor dynamics: Mathematical models and analysis, *Discrete Cont. Dynam. Sys. B* **4**(2004), 221-240.
- K.R. Swanson *et al.*, Dynamics of a model for brain tumors reveals a small window for therapeutic intervention, *Discrete Cont. Dynam. Sys. B* **4**(2004), 289-295.
- W.Y. Tang and L.-J. Zhang, Stochastic modeling of carcinogenesis: State space models and estimation of parameters *Discrete Cont. Dynam. Sys. B* **4**(2004), 297-322.
- K.A. Rejniak, H.J. Kliman, and L.J. Fauci, A computational model of the mechanics of growth of the villous trophoblast bilayer *Bull. Math. Biol.* **66**(2004), 199-232.
- S. Chen, S. Ganguli and C.A. Hunt, An agent-based computational approach for representing aspects of in vitro multi-cellular tumor spheroid growth, *Proc. of the 26th Annual International Conference of the IEEE EMBS*, San Francisco, CA, September 1-5, 2004, pp. 691-695.
- B. Ribba *et al.*, The use of hybrid cellular automaton models for improving cancer therapy in **ACRI, LNCS 3305** edited by P.M.A. Sloot, B. Chopard and A.G. Hoekstra, Springer Verlag, 2004, pp. 444-453.
- R.P. Araujo and D.L.S. McElawin, A history of the study of solid tumour growth: the contributions of mathematical modeling, *Bull. Math. Biol.* **66**(2004), 1039-1091.
- D.S. Wishart *et al.*, Dynamic cellular automata: an alternative approach to cellular simulation, *In Silico Biology* **4**(2004).

T. Alarcon, H.M. Byrne and P.K. Maini, A mathematical model of the effects of hypoxia on the cell-cycle of normal and cancer cells, *J. Theor. Biol.* **229**(2004), 395-411.

T. Alarcon, H.M. Byrne and P.K. Maini, Towards whole-organ modeling of tumour growth, *Biophys. Mol. Biol.* **85**(2004), 451-472.

L. Sontag and D.E. Axelrod, Evaluation of pathways for progression of heterogeneous breast tumors, *J. Theo. Biol.* **232**(2004), 179-189.

O. Clatz *et al.*, In silico tumor growth: application to glioblastomas, in **MICCAI 2004**, edited by D.R. Barillot and P. Hellier, Springer-Verlag, 2004.

D. Drasdo *et al.*, Cell-based models of avascular tumor growth in **Function and Regulation of Cellular Systems**, edited by A. Deutsch, J. Howard, M. Falcke and W. Zimmerman, Birkhauser, 2004.

A.R.A. Anderson, Solid tumour invasion: the importance of cell adhesion in **Function and Regulation of Cellular Systems**, edited by A. Deutsch, J. Howard, M. Falcke and W. Zimmerman, Birkhauser, 2004.

Y. Mansury and T. Deisboeck, Simulating “structure-function” patterns of malignant brain tumors, *Physica A* **331**(2004), 219-232.

Y. Mansury and T. Deisboeck, Simulating the time series of a selected gene expression profile in an agent-based tumor model, *Physica D* **196**(2004), 193-204.

J. Valenciano and M.A.J. Chaplain, An explicit subparametric spectral element method of lines applied to a tumour angiogenesis system of partial differential equations, *Math. Mod. Meth. Appl. Sci.* **14**(2004), 165-187.

D. Mackenzie, Mathematical modeling and cancer, *SIAM News* **37**(Jan/Feb 2004).

M.J. Plank *et al.*, A mathematical model of tumor angiogenesis, regulated by vascular endothelial growth factor and angiopoietins, *J. Theoret. Biol.* **229**(2004), 435-454.

B.C. Sanone *et al.*, Transformation threshold and time-dependent TAF generation in an angiogenesis model, *Eur. Phys. J. Appl. Phys.* **25**(2004), 133-140.

T.L. Jackson, A mathematical investigation of the multiple pathways to recurrent prostate cancer: Comparison with experimental data, *Neoplasia* **6**(2004), 697-704.

Y Xu, A free boundary problem model of ductal carcinoma in situ, *Discrete Cont. Dynam. Sys. B* **4**(2004), 337-348.

2005

L. Preziosi, **Cancer Modelling and Simulation**, Chapman & Hall, 2005.

A. Deutsch and S. Dormann, **Cellular Automaton Modeling of Biological Pattern Formation**, Birkhauser, 2005.

D. Wodarz and N. Komarova, **Computational Biology of Cancer**, *Lecture Notes and Mathematical Modeling*, World Scientific, 2005.

T. Alarcon, H.M. Byrne and P.K. Maini, A multiple scale model for tumor growth, *Multiscale Model. Simul.* **3**(2005), 440-475.

A.R.A. Anderson, A hybrid mathematical model of solid tumour invasion: the importance of cell adhesion, *Math. Med. Biol.* **22**(2005), 163-186.

F. Michor, Y. Iwasa *et al.*, Dynamics of colorectal cancer, *Seminars Cancer Biol.* **15**(2005), 484-493.

L.G. de Pillis, A.E. Radunskaya and C.L. Wiseman, A validated mathematical model of cell-mediated response to tumor growth, *Cancer Res.* **65**(2005), 7950-7958.

A. Stephanou, S.R. McDougall, A.R.A. Anderson and M.A.J. Chaplain, Mathematical modeling of flow in 2D and 3D vascular networks: applications to anti-angiogenic and chemotherapeutic drug strategies, *Math. Comp. Mod.* **41**(2005), 1137-1156.

A. Habbal, A topology Nash game for tumoral antiangiogenesis, *Struct. Multidisc. Optim.* **30**(2005), 404-412.

D. Drasdo and S. Hohme, A single-cell-based model of tumor growth *in vitro*: monolayers and spheroids, *Phys. Biol.* **2**(2005), 133-147.

V. Quaranta *et al.*, Mathematical modeling of cancer: The future of prognosis and treatment, *Clin. Chem. Acta* **357**(2005), 173-179.

N. Bellomo *et al.*, Mathematical topics on the modeling of multicellular systems in the competition between tumor and immune cells, *Math. Mod. Meth. Appl. Sci.* **15**(2005), 1639-1666.

A. Bertuzzi *et al.*, A mathematical model for tumor cords incorporating the flow of interstitial fluids, *Math. Mod. Meth. Appl. Sci.* **15**(2005), 1735-1778.

N.L. Komarova, Mathematical modeling of tumorigenesis: mission possible, *Curr. Opin Oncol.* **17**(2005), 39-43.

K. Smallbone *et al.*, The role of acidity in solid tumour growth and invasion, *J. Theo. Biol.* **235**(2005), 476-484.

H. Hatzikirou *et al.*, Mathematical modeling of glioblastoma tumour development: a review, *Math. Mod. Meth. Appl. Sci.* **151**(2005), 1779-1794.

E.L.M. Khain *et al.*, A model for glioma growth, *Complexity* **11**(2005), 53-57.

M.A.J. Chaplain and G. Lolas, Mathematical modelling of cancer cell invasion of tissue: The role of the urokinase plasminogen activation system, *Math. Mod. Meth. Appl. Sci.* **15**(2005), 1685-1734.

X.S. Zheng *et al.*, Nonlinear simulations of tumor necrosis, neo-vascularization and tissue invasion via an adaptive finite-element/level set method, *Bull. Math. Biol.* **67**(2005), 211-259.

T.S. Deisboeck *et al.*, Correlating velocity patterns with spatial dynamics in glioma cell migration, *Acta Biotheoretica* **53**(2005), 181-190.

S.J. Franks *et al.*, Biological inferences from a mathematical model of comedo ductal carcinoma in situ of the breast, *J. Theoret. Biol.* **232**(2005), 523-543.

V. Cristini *et al.*, Morphologic instability and cancer invasion, *Clin. Cancer Res.* **11**(2005), 6772-6779.

L. Ma *et al.*, A plausible model for the digital response of p53 to DNA damage, *PNAS* **102**(2005), 14266-14271.

2006

C. Bellomo, A mathematical model of the immersion of a spherical tumor with a necrotic core into a nutrient bath, *Math. Comp. Modelling* **43**(2006), 779-786.

S.R. McDougall, A.R.A. Anderson and M.A.J. Chaplain, Mathematical modeling of dynamic adaptive tumour-induced angiogenesis: Clinical implications and therapeutic targeting strategies, *J. Theor. Biol.* **241**(2006), 564-589.

M.A.J. Chaplain and G. Lolas, Mathematical modeling of cancer invasion of tissue: dynamic heterogeneity, *Networks Heter. Media* **3**(2006), 399-439.

M.A.J. Chaplain *et al.*, Mathematical modeling of the loss of tissue compression responsiveness and its role in solid tumour development, *Math. Med. Biol.* **23**(2006), 197-229.

E.S. Norris, J.R. King and H.M. Byrne, Modelling the response of spatially structured tumours to chemotherapy: Drug kinetics, *Math. Comp. Modelling* **43**(2006), 820-837.

D.G. Mallet and L.G. De Pillis, A cellular automata model of tumor-immune system interactions, *J. Theo. Biol.* **239**(2006), 334-350.

H.F. Friboes *et al.*, An integrated computational/experimental model of tumor invasion, *Cancer Res.* **66**(2006), 1597-1604.

- N.L. Komarova and P. Cheng, Epithelia tissue architecture protects against cancer, *Math. Biosciences* **200**(2006), 90-117.
- C. Escudero, Stochastic models for tumoral growth, *Phys. Rev. E* **73**(2006), 020902: 1-4.
- A. Friedman and B. Hu, Bifurcation from stability to instability for a free boundary problem arising in a tumor model, *Arch. Rat. Mech. Anal.* **180**(2006), 293-330.
- Y. Tao and M. Chen, An elliptic-hyperbolic free boundary problem modeling cancer therapy, *Nonlinearity* **19**(2006), 419-440.
- U. Forys, J. Waniewski and P. Zhivkov, Anti-tumor immunity and tumor anti-immunity in a mathematical model of tumor immunotherapy, *J. Biol. Sciences* **14**(2006), 13-30.
- H.L.P. Harpold, *et al.*, Simulating low- and high-grade human gliomas: An in silico model integrating the angiogenic cascades *Neuro-oncology* **8**(2006), 493.
- H. Enderling, *et al.*, Visualisation of the numerical solution of partial differential equation systems in three dimensions and its importance for mathematical models in biology, *Math. Biosci. Eng.* **3**(2006), 571-582.
- H. Enderling *et al.*, Mathematical modeling of radiotherapy strategies for early breast cancer, *J. Theo. Biol.* **241**(2006), 158-171.
- A.R.A. Anderson *et al.*, Tumor morphology and phenotypic evolution driven by selective pressure from the microenvironment, *Cell* **127**(2006), 905-915.
- A. Stephanou *et al.*, Mathematical modeling of the influence of blood rheological properties upon adaptive tumour-induced angiogenesis, *Math. Comp. Modelling* **44**(2006), 96-123.
- B.P. Ayati *et al.*, Computational methods and results for structured multiscale models of tumor invasion, *Multiscale Mod. Simul.* **5**(2006), 1-20.
- W. Liu *et al.*, A mathematical model for M-phase specific chemotherapy including the G(0)-phase and immunoresponse, *Math. Biosci. Eng.* **4**(2006), 239-259.
- G. Lolas, **Tutorials in Mathematical Biosciences III: Cell Cycle, Proliferation, and Cancer**, *Lecture Notes in Mathematics* **1872**(2006), 77-129.
- B. Ribba *et al.*, A multiscale mathematical model of avascular tumor growth to investigate the therapeutic benefit of anti-invasive agents, *J. Theo. Biol.* **243**(2006), 532-541.
- B. Ribba *et al.*, A multiscale mathematical model of cancer, and its use in analyzing irradiation therapies, *Theor. Boil. Med. Modelling* **3**(2006), 1-19.
- N.J. Armstrong *et al.*, A continuum approach to modeling cell-cell adhesion, *J. Theo. Biol.* **243**(2006), 98-113.

- M.M. Aubert *et al.*, A cellular automation model for migration of glioma cells *Phys. Biol.* **3**(2006), 93-100.
- E. Khain and L.M. Sander, Dynamics and pattern formation in invasive tumor growth, *Phys. Rev. Lett.* **96**(2006), 188103.
- K. Boushaba *et al.*, A mathematical model for the regulation of tumor dormancy based on enzyme kinetics, *Bull. Math. Biol.* **68**(2006), 1495-1526.
- M. Kohandel *et al.*, Mathematical modeling of ovarian cancer treatments: Sequencing of surgery and chemotherapy, *J. Theo. Biol.* **242**(2006), 62-68.
- S. Legewie *et al.*, Mathematical modeling identifies inhibitors of apoptosis as mediators of positive feedback and bistability, *PLoS Comp. Biol.* **2**(2006), 1061-1073.
- S. Modok *et al.*, Diffusivity and distribution of vinblastine in three-dimensional tumour tissue: Experimental and mathematical modeling, *European J Can.* **42**(2006), 2404-2413.
- C.A. Klein and D. Hotzel, Systemic cancer progression and tumor dormancy – mathematical models meet single cell genomics, *Cell Cycle* **5**(2006), 1788-1798.
- B.P. Marchant *et al.*, Biphase behaviour in malignant invasion, *Math. Med. Biol.* **23**(2006), 173-196.
- M. Zhang *et al.*, Predicting tumor cell repopulation after response: Mathematical modeling of cancer cell growth, *Anticancer Res.* **26**(2006), 2933-2936.
- M.A.J. Chaplain and A. Matzavioons, Mathematical modeling of spatio-temporal phenomena in tumour immunology in **Tutorials in Mathematical Biosciences III**, *Lecture notes in Mathematics* **1872**(2006), 131-183.
- P.-L. Lollini *et al.*, Modeling tumor immunology, *Math. Mod. Meth. Appl. Sci.* **16**(2006), 1091-1124.
- T.S. Deisboeck *et al.*, Does cancer growth depend on surface tension? *Med. Hypoth.* **67**(2006), 1338-1341.
- C. Guiot *et al.*, The dynamic evolution of the power exponent in a universal growth model of tumors, *J. Theor. Biol.* **240**(2006), 459-463.
- C. Athale *et al.*, Simulating the impact of a molecular ‘decision-process’ on cellular phenotype and multicellular patterns in brain tumors, *J. Theor. Biol.* **239**(2006), 516-517.
- C.A. Athale and T.S. Deisboeck, The effects of EGF-receptor density on multiscale tumor growth patterns, *J. Theor. Biol.* **238**(2006), 771-779.
- Y. Mansury *et al.*, Evolutionary game theory in an agent-based brain tumor model: Exploring the

'Genotype-Phenotype' link, *J. Theor. Biol.* **238**(2006), 146-156.

J.L. Gevertz and S. Torquato, Modeling the effects of vasculature evolution on early brain tumor growth, *J. Theoret. Biol.* **243**(2006), 517-531.

S. Sanga *et al.* Mathematical modeling of cancer progression and response to chemotherapy, *Expert Rev. Anticancer Ther.* **6**(2006), 1361-1376.

2007

S. Fedotov and A. Iomin, Migration and proliferation dichotomy in tumor-cell invasion, *Phys. Rev. Lett.* **98**(2007), 118101-4.

M.D. Johnston *et al.*, Mathematical modeling of cell population dynamics in colonic crypt and in colorectal cancer, *PNAS* **104**(2007), 4008-4013.

R.K. Jain, R.T. Tong and L.L. Munn, Effect of vascular normalization by antiangiogenic therapy on interstitial hypertension, peritumor edema, and lymphatic metastasis: Insights from a mathematical model, *Cancer Res.* **67**(2007), 2729-2735.

N.F. Kirkby *et al.*, A mathematical model of the treatment and survival of patients with high-grade brain tumours, *J. Theo. Biol.*, **245**(2007), 112-124.

M.P. Little, A multi-compartment model allowing for inter-compartment migration following radiation exposure, applied to leukaemia, *J. Theo. Biol.*, **245**(2007), 83-97.

T. Haberichter *et al.*, A systems biology dynamic model of mammalian G(1) cell cycle progression, *Mol. Sys. Biol.* **3**(2007), Article # 84.

K. Smallbone *et al.*, Metabolic changes during carcinogenesis: Potential impact on invasiveness, *J. Theo. Biol.*, **244**(2007)703-713.

A.M. Stein *et al.*, A mathematical model of glioblastoma tumor spheroid invasion in a three-dimensional in vitro experiment, *Biophys. J.* **92**(2007), 356-365.

H. Enderling *et al.*, A mathematical model of breast cancer development, local treatment and recurrence, *J. Theo. Biol.*, **246**(2007), 245-259.

P. Macklin and J. Lowengrup, Nonlinear simulation of the effect of microenvironment on tumor growth, *J. Theo. Biol.* **245**(2007), 677-704.

L. Zhang *et al.*, Development of a three-dimensional multiscale agent-based tumor model: Simulating gene-protein interaction profiles, cell phenotypes and multicellular patterns in brain cancer, *J. Theo. Biol.*, **244**(2007), 96-107.

W. Liu *et al.*, A mathematical model for M-phase specific chemotherapy including the G(0)-phase and immunoresponse, *Math. Biosci. Eng.* **4**(2007), 239-259.

A. Bankhead *et al.*, Cellular automaton simulation examining progenitor hierarchy structure effects on mammary ductal carcinoma *in situ*, *J. Theo. Biol.*, **246**(2007), 491-498.

A.Q. Cai *et al.*, Multi-scale modeling of a wound-healing cell migration assay, *J. Theo. Biol.* **245**(2007), 576-594.

D. Wodarz, Effect of stem cell turnover rates on protection against cancer and aging, *J. Theo. Biol.*, **245**(2007), 449-458.

T.S. Deisboeck *et al.*, Advancing cancer systems biology: Introducing the Center for the Development of a Virtual Tumor, CViT, *Cancer Informatics* **2**(2007), 1-8.

I.M.M. van Leeuwen *et al.*, Towards a multiscale model of colorectal cancer, *World J. Gastroenterol.* **13**(2007), 1399-1407.

M.D. Johnston *et al.*, Mathematical modeling of cell population dynamics in the colonic crypt and in colorectal cancer, *PNAS* **104**(2007), 4008-4013.

U. Ledzewicz and H. Schaeffer, Optimal controls for a model with pharmacokinetics maximizing bone marrow in cancer chemotherapy, *Math. Biosci.* **206**(2007), 320-342.

A. Friedman, Mathematical analysis and challenges arising from models of tumor growth, *Math. Mod. Meth. Appl. Sci.* **17**(2007), 1751-1772.

Y. Kim, M.A. Stolarska and H.G. Othmer, A hybrid model for tumor spheroid growth in vitro I: Theoretical development and early results, *Mod. Meth. Appl. Sci.* **17**(2007), 1773-1798.

H.B. Frieboes *et al.*, Computer simulation of glioma growth and morphology, *NeuroImage* **37**(2007), S59-S70.

M.L. Martins, S.C. Ferreira and M.J. Vilela, Multiscale models for the growth of avascular tumors, *Phys. Life Rev.* **4**(2007), 128-156.

2008

A.R.A. Anderson and V. Quaranta, Integrative mathematical oncology, *Nature Reviews* **8**(March 2008), 227-234.

P.P. Delsanto *et al.*, A multilevel approach to cancer growth modeling, *J. Theo. Biol.* **250**(2008), 16-24.

- M. Welter, K. Bartha and H. Rieger, Emergent vascular network inhomogeneities and resulting blood flow patterns in a growing tumor, *J. Theo. Biol.* **250**(2008), 257-280.
- E. De Angelis and B. Lods, On the kinetic theory for active particles: A model for tumor-immune system competition, *Math. Comp. Mod.* **47**(2008), 196-209.
- I. Ramis-Conde, M.A.J. Chaplain and A.R.A. Anderson, Mathematical modelling of cancer cell invasion of tissue, *Math. Comp. Mod.* **47**(2008), 533-545.
- A. Bru *et al.*, Fractal analysis and tumour growth, *Math. Comp. Mod.* **47**(2008), 546-559.
- J. Panovska, H.M. Byrne and P.K. Maini, A theoretical study of the response of vascular tumours to different types of chemotherapy, *Math. Comp. Mod.* **47**(2008), 560-589.
- M.J. Piotrowska, Hopf bifurcation in a solid avascular tumour growth model with two discrete delays, *Math. Comp. Mod.* **47**(2008), 597-603.
- C. Morales-Rodrigo, Local existence and uniqueness of regular solutions in a model tissue invasion by solid tumours, *Math. Comp. Mod.* **47**(2008), 604-613.
- A. d'Onofrio, Metamodeling tumor-immune system interaction, tumor evasion and immunotherapy, *Math. Comp. Mod.* **47**(2008), 614-637.
- K.R. Swanson, Quantifying glioma cell growth and invasion *in vitro*, *Math. Comp. Mod.* **47**(2008), 638-648.
- N. Bellomo, A. Bellouquid and M. Delitala, From the mathematical kinetic theory of active particles to multiscale modelling of complex biological systems, *Math. Comp. Mod.* **47**(2008), 687-698.
- M. Meyer-Hermann, Delaunay-object-dynamics: Cell mechanics with a 3D kinetic and dynamic weighted Delaunay-triangulation, *Cur. Top. Devel. Biol.* **81**(2008), 373-399.
- H. Hatzikirou and A. Deutsch, Cellular automata as microscopic models of cell migration in heterogeneous environments, *Cur. Top. Devel. Biol.* **81**(2008), 401-434.
- F. Zhou and S. Cui, Bifurcation for a free boundary problem modeling the growth of multi-layer tumors, *Nonlinear Anal.* **68**(2008), 2128-2145.
- M.J. Tindal, C.P. Please and M.J. Peddie, Modelling the formation of necrotic regions in avascular tumours, *Math. Biosci.* **211**(2008), 34-55.

D.V. Geubel and N.V. Torres, A computer model of oxygen dynamics in human colon mucosa: Implications in normal physiology and early tumor development, *J. Theo. Biol.* **250**(2008), 389-409.

A. Gerisch and M.A.J. Chaplain, Mathematical modelling of cancer cell invasion of tissue: Local and non-local models and the effect of adhesion, *J. Theoret. Biol.* **250**(2008), 684-704.

E. Izquierdo-Kulich and J.M. Nieto-Villar, Morphogenesis of the tumor patterns, *Math. biosci. Eng.* **5**(2008), 299-313.

N. Bellomo, N.K. Li and P.K. Maini, On the foundations of cancer modelling: Selected topics, speculations and perspectives, *Math. Mod. Meth. Appl Sci.* **18**(2008), 593-646.

U. Ledzewicz and H. Schaettler, Optimal and suboptimal protocols for a class of mathematical models of tumor anti-angiogenesis, *J. Theo. Biol.* **252**(2008), 295-312.

I. Ramis-Conde, D. Drasko *et al.*, Modeling the influence of the E-Cadherin- β -Catenin pathway in cancer cell invasion: A multiscale approach, *Biophys. J.* **95**(2008), 155-165.

A.R. Small, A. Neagu, et al., Spatial distribution of VEGF isoforms and chemotactic signals in the vicinity of a tumor, *J. Theo. Biol.* **252**(2008), 593-607.

D. Basanta, H. Hatzikirou and A. Deutsch, Studying the emergence of invasiveness in tumours using game theory, *Eur. Phys. J. B* **63**(2008), 393-397.

W. Tuckwell, E. Bezak *et al.*, Efficient Monte Carlo modelling of individual tumour cell propagation for hypoxic head and neck cancer, *Phys. Med. Biol.* **53**(2008), 4489-4507.

S.M. Wise, J.S. Lowengrub *et al.*, Three-dimensional multispecies nonlinear tumor growth—I Model and numerical method, *J. Theoret. Biol.* **253**(2008), 524-543.

C.M. Ulrick, M. Neuhaus *et al.*, Mathematical modeling of folate metabolism: Predicted effects of genetic polymorphisms on mechanisms and biomarkers relevant to carcinogenesis, *Cancer Epid. Biomark. Prev.* **17**(2008), 1822-1831.

Y. Tao and M. Wang, Global solution for a chemotactic-haptotactic model of cancer invasion, *Nonlinearity* **21**(2008), 2221-2238.

F. Milde, M. Bergdorf and P. Koumoutsakos, A hybrid model for three-dimensional simulations of sprouting angiogenesis, *Biophys. J.* **95**(2008), 3146-3160.

M.A.J. Chaplain, Modelling aspects of cancer growth: Insight from mathematical and numerical analysis and computational simulation, **Multiscale Problems in the Life Sciences**, *Lecture Note in Mathematics* **1940**(2008), 147-200.

P.S. Kim, P.P. Lee and D. Levy, A PDE model for imatinib-treated chronic myelogenous leukemia, *Bull. Math. Biol.* **70**(2008), 1994-2016.

S. Bunimovich-Mendrazitsky, H. Byrne and K. Stone, Mathematical model of pulsed immunotherapy for superficial bladder cancer, *Bull. Math. Biol.* **70**(2008), 2055-2076.

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