General Policy

- IN VIVO is a multidisciplinary journal designed to bring together original high quality works and reviews on experimental and clinical biomedical research within the framework of comparative physiology and pathology. The special focus of the journal is the publication of works on: (a) experimental development and the application of new diagnostic procedures; (b) pharmacological and toxicological evaluation of new drugs and drug combinations; (c) development and characterization of models for biomedical research.

- One of the principal aims of IN VIVO is to provide for the prompt publication of accepted articles, generally within 1-2 months from final acceptance.

- IN VIVO supports: (a) the aims and the research programmes of the INTERNATIONAL INSTITUTE OF ANTICANCER RESEARCH (IIAR) (Kapandriti, Attiki, Greece) and (b) the organization of the INTERNATIONAL CONFERENCES OF ANTICANCER RESEARCH.

Editorial Office

Manuscripts and correspondence should be addressed to: Dr. J.G. Delinassios, Managing Editor, IN VIVO Editorial Office, International Institute of Anticancer Research, 1st km Kapandritiou-Kalamou Rd., Kapandriti, P.O. Box 22, Attiki, 19014, Greece. Tel and Fax: +30-22950-53389; e-mail: journals@iiar-anticancer.org

For more information about IN VIVO, IIAR and the conferences please visit the IIAR website: www.iiar-anticancer.org

Selection of Recent Articles


Transgenic Mice Expressing Constitutively Active Akt in Oral Epithelium Validate Kif4 as a Potential Biomarker of Head and Neck Squamous Cell Carcinoma. M. MORAL, C. SEGRELLES, A.B. MARTINEZ-CRUZ, C. LORZ et al. (Madrid, Spain; Smithville, TX, USA)

Detection of Herpesviruses and Parvovirus B19 in Gastric and Intestinal Mucosa of Chronic Fatigue Syndrome Patients. M. FRI MONT, K. METZGER, H. RADY, J. HULSTAERT, K. DE MEIRLEIR (Zellik; Brussels; Vilvoorde, Belgium)

A Bioluminescent Orthotopic Mouse Model of Human Osteosarcoma that Allows Sensitive and Rapid Evaluation of New Therapeutic Agents In Vivo. K.E. COMSTOCK, C.L. HALL, S. DAIGNAULT, S.A. MANDLEBAUM, C. YU, E.T. KELLER (Ann Arbor, MI, USA)

Obesity Impairs Wound Healing in Ovariectomized Female Mice. V.B. HOLCOMB, V.A. KECK, J.C. BARRETT, J. HONG, S.K. LIBUTTI, N.P. NÚÑEZ (Austin, TX; Bethesda, MD; Cambridge, MA; Bronx, NY, USA)


Inhibiting Platelet Derived Growth Factor Beta (PDGFR-B) Decreases Ewing’s Sarcoma Growth and Metastasis in a Novel Orthotopic Human Xenograft Model. Y.X. WANG, D. MANDAL, S. WANG, D. HUGHES, R.E. POLLOCK, D. LEV, E. KLEINERMAN, A. HAYES-JORDAN (Houston, TX; Kingston, RI, USA)

Ethyl-eicosapentaenoic Acid Reduces Liver Lipids and Lowers Plasma Levels of Lipids in Mice Fed a High-fat Diet. N. NEMOTO, S. SUZUKI, H. KIKUCHI, H. OKABE, S. SASSA, S. SAKAMOTO (Chiba; Tokyo, Japan)


Dietary Calcium Source Influences Body Composition, Glucose Metabolism and Hormone Levels in a Mouse Model of Postmenopausal Obesity. R.E. DE ANGEL, D. BERRIGAN, N.P. NÚÑEZ, S.D. HURSTING, S.N. PERRINS (Austin; Smithville, TX; Bethesda, MD, USA)

Distribution of [3H]-Corticosterone in Urine, Feces and Blood of Male Sprague-Dawley Rats After Tail Vein and Jugular Vein Injections. K.S.P. ABELSON, S.S. FARD, J. NYMAN, R. GOLDKUHL, J. HAU (Uppsala, Sweden; Copenhagen, Denmark)

5-Hydroxymethylfurfural and 5-Sulfooxymethylfurfural Increase Adenoma and Flat ACF Number in the Intestine of Min/+ Mice. C. RÖNNINGBORG, T. HUSOY, H. GLATT, J.E. PAULSEN, J. ALEXANDER (Oslo, Norway; Nuthetal, Germany)

Ocular Toxicity Caused by Paclitaxel in Neonatal Sprague-Dawley Rats. M. KUWATA, K. YOSHIZAWA, M. MATSUMURA, K. TAKAHASHI, A. TSUBURA (Osaka, Japan)
Instructions to Authors

General Policy. ANTICANCER RESEARCH (AR) will accept original high quality works and reviews on all aspects of experimental and clinical cancer research. The Editorial Policy suggests that priority will be given to papers advancing the understanding of cancer causation, and to papers applying the results of basic research to cancer diagnosis, prognosis, and therapy. AR will also accept the following for publication: (a) Abstracts of scientific meetings on cancer, following consideration and approval by the Editorial Board; (b) Announcements of meetings related to cancer research; (c) Short reviews (of approximately 120 words) and announcements of newly received books and journals related to cancer, and (d) Announcements of awards and prizes.

The principal aim of AR is to provide for the prompt publication of original works of high quality, generally within 1-2 months from final acceptance. Manuscripts will be accepted on the understanding that they report original unpublished works on the cancer problem that are not under consideration for publication by another journal, and that they will not be published again in the same form. All material submitted to AR will be subject to review, when appropriate, by two members of the Editorial Board and by one suitable outside referee. The Editors reserve the right to improve manuscripts on grammar and style.

The Editors and Publishers of AR accept no responsibility for the contents and opinions expressed by the contributors. Authors should warrantee due diligence in the creation and issuance of their work.

NIIH Open Access Policy. The journal acknowledges that authors of NIH funded research retain the right to provide a copy of the final manuscript to the NIH four months after publication in ANTICANCER RESEARCH, for public archiving in PubMed Central.

Copyright. Once a manuscript has been published in ANTICANCER RESEARCH, which is a copyrighted publication, the legal ownership of all published parts of the paper has passed from the Author(s) to the journal. Material published in the journal may not be reproduced or published elsewhere without written consent of the Managing Editor.

Format. Two types of papers may be submitted: (i) Full papers containing completed original work, and (ii) short papers. Additionally, the Editors may invite review articles concerning fields of recognisable progress. Papers should contain all essential data in order to make the presentation clear. Reasonable economy should be exercised with respect to the number of tables and illustrations used. Papers should be written in clear, concise English. Spelling should follow that given in the “Shorter Oxford English Dictionary”.

Manuscripts. Submitted manuscripts should not exceed fourteen (14) pages (approximately 250 words per double - spaced typed page), including abstract, text, tables, figures, and references (corresponding to 4 printed pages). Papers exceeding four printed pages will be subject to excess page charges. All manuscripts should be divided into the following sections:

(a) First page including the title of the presented work [not exceeding fifteen (15) words], full names and full postal addresses of all Authors, name of the Author to whom proofs are to be sent, key words, an abbreviated running title, an indication “clinical”, “epidemiological”, or “clinical study”, and the date of submission. (Note: The order of the Authors is not necessarily indicative of their contribution to the work. Authors may note their individual contribution(s) in the appropriate section(s) of the presented work); (b) Abstract not exceeding 150 words, organized according to the following headings: Background/Aim - Materials and Methods/Patients and Methods - Results - Conclusion; (c) Introduction; (d) Materials and Methods/Patients and Methods; (e) Results; (f) Discussion; (g) Acknowledgements; (h) References. All pages must be numbered consecutively. Footnotes should be avoided. Review articles may follow a different style according to the subject matter and the Author's opinion. Review articles should not exceed 35 pages (approximately 250 words per double-spaced typed page) including all tables, figures, and references.

Figures. All figures (whether photographs or graphs) should be clear, high contrast, glossy prints of the size they are to appear in the journal: 8.00 cm (3.15 in.) wide for a single column; 17.00 cm (6.70 in.) for a double column; maximum height: 20.00 cm (7.87 in.). Graphs must be submitted as photographs made from drawings and must not require any artwork, typesetting, or size modifications. Symbols, numbering and lettering should be clearly legible. The number and top of each figure must be indicated on the reverse side. Original karyotypes and photographs should be provided wherever possible, and not photographic copies. Colour plates are charged.

Tables. Each table should be submitted on a separate page, typed double-spaced. Tables should be numbered with Roman numerals and should include a short title.

Nomenclature and Abbreviations. Nomenclature should follow that given in “Chemical Abstracts”. Standard abbreviations will be preferable. If a new abbreviation is used, it must be defined at its first usage.

Clinical Trials. Authors of manuscripts describing clinical trials should provide the appropriate clinical trial number in the correct format in the text. For International Standard Randomised Controlled Trials (ISRCTN) Registry (a not-for-profit organization whose registry is administered by Current Controlled Trials Ltd.) the unique number must be provided in this format: ISRCTNXXXXXXXX (where XXXXXXXX represents the unique number, always prefixed by “ISRCTN”). Please note that there is no space between the prefix “ISRCTN” and the number. Example: ISRCTN47956475.

For Clinicaltrials.gov registered trials, the unique number must be provided in this format: NCTXXXXXXXX (where XXXXXXXX represents the unique number, always prefixed by ‘NCT’). Please note that there is no space between the prefix ‘NCT’ and the number. Example: NCT00001789.

Submission of Manuscripts. Follow the Instructions to Authors regarding the format of your manuscript and references. There are 3 ways to submit your article (NOTE: Please use only one of the 3 options. Do not send your articles twice): 1. To submit your article online please visit: IIAR-Submissions (http://www.iiar-anticancer.org/submissions/login.php) 2. You can send your article via e-mail to journals@iiar-anticancer.org. Please remember to always indicate the name of the journal you wish to submit your paper. The text should be sent as a Word document (*.doc) attachment. Tables, figures and cover letter can also be sent as e-mail attachments. 3. You can send the manuscript of your article via regular mail in a USB stick, DVD, CD or floppy disk (including text, tables and figures) together with three hard copies of your manuscript to the following address:
John G. Delinassios
International Institute of Anticancer Research (IIAR)
Editorial Office of ANTICANCER RESEARCH, IN VIVO, CANCER GENOMICS and PROTEOMICS.
1st km Kapandritiou-Kalamou Road
P.O. Box 22, GR-19014 Kapandriti, Attiki
GREECE

Submitted articles will not be returned to Authors upon rejection.

Galley Proofs. Unless otherwise indicated, galley proofs will be sent to the first-named Author of the submission. Corrections of galley proofs should be limited to typographical errors.

Reprints. Twenty-five copies of each communication will be provided free-of-charge. Additional copies or PDF files may be ordered after the acceptance of the paper. Requests for additional reprints should be addressed to the Editorial Office.

Copyright © 2009 - International Institute of Anticancer Research (J.G. Delinassios). All rights reserved (including those of translation into other languages). No part of this journal may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission from the Publisher.

* Review: Chemotherapy for Glioblastoma: Current Treatment and Future Perspectives for Cytotoxic and Targeted Agents. G. MINNITI, R. MUNI, G. LANZETTA, P. MARCHETTI, R. MAUZI ENRICI (Rome; Pozzilli (IS), Italy) ................. 5171

Claudin-5 Overexpression Correlates with Aggressive Behavior in Serous Ovarian Adenocarcinoma. M. TURUNEN, A. TELVENSAAI-MATTILA, Y. SOINI, M. SANTALA (Oulu; Kuopio, Finland) .......... 5185

Neoplastic Meningitis from Breast Cancer: Feasibility and Activity of Long-term Intrathecal Liposomal Ara-C Combined with Dose-dense Temozolomide. A-L. HOFFMANN, J-H. BUHK, H. STRIK (Gottingen; Marburg, Germany) ....... 5191

Extraskletal Osteosarcoma with Partial Spontaneous Regression. T. MATSUO, S. SHIMOSE, T. KUBO, Y. MIKAMI, K. ARHIRO, Y. YASUNAGA, M. OCHI (Hiroshima, Japan) ............................. 5197

* Review: A Novel Strategy by Cryoablation for Advanced Hepatoma. S. OSADA, K. YOSHIDA, S. SAJI (Gifu, Japan) .................................................. 5203

Biweekly Gemcitabine (GEM) in Combination with Erlotinib (ERL): An Active and Convenient Regimen for Advanced Pancreatic Cancer. A. ARDANIS, P. KOUNTOURAKIS, A. KARAGIANNIS, D. DOUFEXIS, A.A. TZOVARAS, G. RIGATOS (Athens, Greece) ........................................ 5211


Tyrosine Kinase Inhibitor-induced Macrocytosis. D. SCHALLIER, F. TRULLEMANS, C. FONTAINE, L. DECOSTER, J. DE GREVE (Brussels, Belgium) .................................................. 5225

Central Adiposity as a Major Risk Factor of Ovarian Cancer. L. DELORT, F. KWIATKOWSKI, N. CHALABI, S. SATIH, Y.-J. BIGNON, D.J. BERNARD-GALLON (Clermont-Ferrand, France) ................ 5229

Phase II Trial of the Association of a Methionine-free Diet with Cystemustine Therapy in Melanoma and Glioma. E. THIVAT, M.-C. FARGES, F. BACIN, M. D'INCAN, M.-A. MOURET-REYNIER, E. CELLARIANT, J.-C. MADELUNT, M.-P. VASSON, P. CHOLLET, X. DURANDO (Clermont-Ferrand, France) .......... 5235

Low-dose IL-2 Therapy Reduces HCV RNA and HBV DNA: Case Report. R. TOMOVA, K. ANTONOV, A. IVANOVA, J.J.L. JACOBS, J.W. OTTER, Z. KRSTEVE (Sofia, Bulgaria; Amsterdam, The Netherlands) .............................. 5241

Routine Use of Pamidronate in NSCLC Patients with Bone Metastasis: Results from a Retrospective Analysis. G. SPIZZO, A. SEEKER, M. MITTERER (Merano, Italy) ....................... 5245


FNA Cytology and Frozen Section Examination in Patients with Follicular Lesions of the Thyroid Gland. F. LUMACHI, S. BORSATO, A. TREGNAGHI, F. MARINO, F. POLISTINA, S.M.M. BASSO, H. KOUSIS, U. BASSO, A. FASSINA (Padova; Vicenza; Pordenone, Italy) .... 5255

* Reviews (pages 4919, 5155, 5171, 5203)
Antitumor and Antiangiogenic Activity of Cediranib in a Preclinical Model of Renal Cell Carcinoma. M. MEDINGER, N. ESSER, U. ZIRRGIEBEL, A. RYAN, J.M. JÜRGENSMEIER, J. DREVS (Freiburg, Germany; MacClesfield, Cheshire, UK) .............................................................. 5065

Autophagy: Novel Action of Panitumumab in Colon Cancer. E. GIANNOPOLOU, A. ANTONACOPOULOU, P. MATSOUKA, H.P. KALOFONOS (Río, Patras, Greece) .............................................................. 5077


Regulating Immunity and Inhibiting Tumor Growth by the Recombinant Peptide sPD-1-CH50. H. QIU, S. LIU, C. XIE, J. LONG, Z. FENG (Wuhan, PRC) .............................................................. 5089

Lung Tumor Growth is Stimulated in IFN-γ−/− Mice and Inhibited in IL-4Rα−/− Mice. E.F. REDENTE, L.D. DWYER-NIELD, B.S. BARRETT, D.W.H. RICHES, A.M. MALKINSON (Aurora; Denver, CO, USA) ........................ 5095

Chitosan Nanoparticles Inhibit the Growth of Human Hepatocellular Carcinoma Xenografts through an Antiangiogenic Mechanism. Y. XU, Z. WEN, Z. XU (Hangzhou, China) .............................................................. 5103

Perioperative Serum VEGF and Extracellular Domains of EGFR and HER2 in Early Breast Cancer. A. ROCCA, G. CANCELLO, V. BAGNARDI, M.T. SANDRI, R. TORRISI, L. ZORZINO, G. VIALE, E. PIETRI, P. VERONESI, S. DELLAPASQUA, F. FERRUCCI, A. LUINI, H. JOHANSSON, R. GHISINI, A. GOLDHIRSCH, M. COLLEONI (Milan; Meldola, Italy) .............................................................. 5111


Diagnostic and Therapeutic Relevance of NY-ESO-1 Expression in Oral Squamous Cell Carcinoma. J. RIES, N. MOLLAOGLU, E. VAIRAKTARIS, F.W. NEUKAM, E. NKENKE (Erlangen, Germany; Ankara, Turkey; Athens, Greece) .............................................................. 5125

DNA Repair Gene XRCC1 Polymorphisms and Outcome of Renal Cell Carcinoma in Caucasian Patients. H.S. BACHMANN, H. RÜBBEN, K.W. SCHMID, W. SIFFERT, K. Riemann (Essen, Germany) .............................................................. 5131

Clinical Studies


Statins and Breast Cancer in Postmenopausal Women without Hormone Therapy. M. EATON, J. EKLOF, J.R. BEAL, A.E. SAHMOUN (Grand Forks; Fargo, ND, USA) .............................................................. 5143


* Review: Pathology of Prostate Cancer and Focal Therapy (‘Male Lumpectomy’). R. MAZZUCCHELLI, M. SCARPELLI, L. CHENG, A. LOPEZ-BELTRAN, A.B. GALOSI, Z. KIRKALI, R. MONTIRONI (Ancona, Italy; Indianapolis, IN, USA; Cordoba, Spain; Izmir, Turkey) .............................................................. 5155

Contents continued on the preceding page
Retinoid-induced Histone Deacetylation Inhibits Telomerase Activity in Estrogen Receptor-negative Breast Cancer Cells. S.M.O. PHIPPS, W.K. LOVE, T. WHITE, L.G. ANDREWS, T.O. TOLLEFSBOL (Birmingham, AL, USA) ................................................................. 4959

Akt Interaction with PLCγ Regulates the G1/M Transition Triggered by FGF Receptors from MDA-MB-231 Breast Cancer Cells. E. BROWAYES-POLY, D. PERDEREAU, A. LESCUYER, A.-F. BURNOL, K. CAILLIAU (Villeneuve d’Ascq; Paris, France) ................................................................. 4965

A New Amino Acid Derivative of Ursodeoxycholate, (N-L-Glutamyl)-UDCA (UDCA-Glu), to Selectively Release UDCA in the Colon. S. ASCIUTTI, D. CASTELLANI, E. NARDI, O. MORELLI, M. CLEMENTI, F. CHISTOLINI, G. GENTILI, K.D.R. SETCHELL, N. O’CONNELL, R. PELLICCIARI, C. CLERICI (Perugia; Italy; Cincinnati, OH, USA) ................................................................. 4971

Diarylheptanoids Derived from Alpinia officinarum Induce Apoptosis, S-Phase Arrest and Differentiation in Human Neuroblastoma Cells. K. TABATA, Y. YAMAZAKI, M. OKADA, K. FUKUMURA, A. SHIMADA, Y. SUN, K. YASUKAWA, T. SUZUKI (Chiba; Tokyo, Japan) ................................................................. 4981

Infrequent Amplification of JUN in Hepatocellular Carcinoma. M. ENDO, K. YASUI, T. NAKAJIMA, Y. GEN, K. TSUJI, O. DOHI, K. ZEN, H. MITSUYOSHI, M. MINAMI, Y. ITOH, M. TANIWAKI, S. TANAKA, S. ARII, T. OKANOUE, T. YOSHIIKAWA (Kyoto; Tokyo; Saitama, Japan) ................................................................. 4987

Image Analysis of Breast Cancer Immunohistochemistry-stained Sections Using ImageJ: An RGB-based Model. T. VREKOUSSIS, V. CHANIOTIS, I. NAVROZOGLOU, V. DOUSIAS, K. PAVLAKIS, E.N. STATTHOPOULOS, O. ZORAS (Ioannina; Heraklion; Athens, Greece) ................................................................. 4995

The Expression of the Insulin-like Growth Factor II, JIP-1 and WT1 Genes in Porcine Nephroblastoma. W. ENGSTROM, M. GRANERUS (Uppsala, Sweden) ................................................................. 4999

Preoperative Plasma Level of IL-10 but not of Proinflammatory Cytokines Is an Independent Prognostic Factor in Patients with Gastric Cancer. A. SZAFLARSKA, A. SZCZEPANIK, M. SIEDLAR, A. CZUPRYNA, M. SIERZEGA, T. POPIELA, M. ZEMBALA (Cracow, Poland) ................................................................. 5007

Elevated Levels of HMGB1 in Cancerous and Inflammatory Effusions. N. WINTER, A. MEYER, A. RICHTER, D. KRISPER, J. BULLERDIEK (Bremen; Hannover, Germany) ................................................................. 5013

Estimation of Relationship Between Structure of Newly Synthesized Dihydroimidazoles Determined by a Semiempirical Molecular-orbital Method and their Cytotoxicity. F. TAKEKAWA, H. SAKAGAMI, M. ISIHARA (Saitama, Japan) ................................................................. 5019

Tumor-specific Cytotoxicity and Type of Cell Death Induced by Gefitinib in Oral Squamous Cell Carcinoma Cell Lines. Q. CHU, O. AMANO, Y. KANDA, S. KUNII, Q. WANG, H. SAKAGAMI (Saitama, Japan; Xi’an, PRC) ................................................................. 5023

CDX2 Expression in Cutaneous Metastatic Carcinomas and Extramammary Paget’s Disease. V. LORA, J. KANITAKIS (Lyon, France) ................................................................. 5033

Curcumin Induces Cell Cycle Arrest and Apoptosis in Human Osteosarcoma (HOS) Cells. D.S. LEE, M.K. LEE, J.H. KIM (Seoul, South Korea) ................................................................. 5039

Zeranol Enhances the Proliferation of Pre-adipocytes in Beef Heifers. W. YE, P. XU, W.R. THRELFALL, R. JEN, H. LI, S.-H. LIN, C.-T. KUO, Y.C. LIN (Columbus, OH, USA; Zhejiang, PRC) ................................................................. 5045

Methylation of the MGMT Gene is Frequently Detected in Advanced Gastric Carcinoma. K. HIBI, M. SAKATA, K. YOKOMIZO, Y.-H. KITAMURA, K. SAKURABA, A. SHIRAHATA, T. GOTO, H. MIZUKAMI, M. SAITO, K. ISHIBASHI, G. KIGAWA, H. NEMOTO, Y. SANADA (Yokohama, Japan) ................................................................. 5053

PPARγ/PGC-1α Pathway in E-Cadherin Expression and Motility of HepG2 Cells. H.-J. LEE, Y. SU, P.-H. YIN, H.-C. LEE, C.-W. CHI (Taipei, Taiwan, PRC) ................................................................. 5057

Contents continued on the preceding page