

ANTICANCER RESEARCH

International Journal of Cancer Research and Treatment

ISSN: 0250-7005

Volume 36, Number 1, January 2016

Contents

Reviews

- Using Epigenetic Therapy to Overcome Chemotherapy Resistance. J. STRAUSS, W.D. FIGG (*Bethesda, MD, USA*) 1
- Potential of Amifostine for Chemoradiotherapy and Radiotherapy-associated Toxicity Reduction in Advanced NSCLC: A Meta-Analysis. A. DEVINE, L. MARIGNOL (*Dublin, Ireland*) 5
- Factors Affecting Survival in Patients with Lung Metastases from Colorectal Cancer. A Short Meta-analysis. F. LUMACHI, G.B. CHIARA, R. TOZZOLI, A. DEL CONTEA, S.M.M. BASSO (*Padova; Pordenone, Italy*) 13
- TAS-102 an Emerging Oral Fluoropyrimidine. J. CHEN, M. HAN, M.W. SAIF (*St. Lucia; Wollongong, Australia; Boston, MA, USA*) 21

Experimental Studies

- Inhibition of Chronic Pancreatitis and Murine Pancreatic Intraepithelial Neoplasia by a Dual Inhibitor of c-RAF and Soluble Epoxide Hydrolase in *LSL-Kras^{G12D}/Pdx-1-Cre* Mice. J. LIAO, S.H. HWANG, H. LI, J.-Y. LIU, B.D. HAMMOCK, G.-Y. YANG (*Chicago, IL; Davis, CA, USA*) 27
- HUHS1015 Suppresses Colonic Cancer Growth by Inducing Necrosis and Apoptosis in Association with Mitochondrial Damage. Y. KAKU, A. TSUCHIYA, T. SHIMIZU, A. TANAKA, T. NISHIZAKI (*Nishinomiya; Kobe, Japan*) 39
- A Novel Sirtuin-3 Inhibitor, LC-0296, Inhibits Cell Survival and Proliferation, and Promotes Apoptosis of Head and Neck Cancer Cells. T.Y. ALHAZZAZI, P. KAMARAJAN, Y. XU, T. AI, L. CHEN, E. VERDIN, Y.L. KAPILA (*Jeddah, Saudi Arabia; Ann Arbor, MI; Minneapolis, MN; San Francisco, CA, USA*) 49

Contents continued on the back cover

LPA Increases Tumor Growth and Bone Destruction Through Enhancement of Osteoclastogenic Cytokines. P.F. LINDHOLM, Y.S. HWANG (<i>Chicago, IL, USA; Seongnam, Republic of Korea</i>)	61
<i>In Vitro</i> Validation of Intratumoral Modulation Therapy for Glioblastoma. H. XU, F. BIHARI, S. WHITEHEAD, E. WONG, S. SCHMID, M.O. HEBB (<i>London, ON, Canada</i>)	71
Effect of Eudragit on <i>In Vitro</i> Transfection Efficiency of PEI-DNA Complexes. N. KANTHAMNENI, B. YUNG, R.J. LEE (<i>Columbus, OH, USA</i>)	81
Effects of Administered Cardioprotective Drugs on Treatment Response of Breast Cancer Cells. T.A.D. SMITH, S.M. PHYU, E.U. AKABUOGU (<i>Aberdeen, UK</i>)	87
Torin2 Potentiates Anticancer Effects on Adult T-Cell Leukemia/Lymphoma by Inhibiting Mammalian Target of Rapamycin. T. WATANABE, A. SATO, N. KOBAYASHI-WATANABE, N. SUEOKA-ARAGANE, S. KIMURA, E. SUEOKA (<i>Nabeshima, Saga, Japan</i>)	95
Radiosensitivity of Prostate Cancer Cell Lines for Irradiation from Beta Particle-emitting Radionuclide ¹⁷⁷ Lu Compared to Alpha Particles and Gamma Rays. J. ELGQVIST, O. VILHELMSSON TIMMERMAND, E. LARSSON, S.-E. STRAND (<i>Lund, Sweden</i>)	103
Cutaneous Epithelial Lesions Induced by <i>N</i> -Methyl- <i>N</i> -nitrosourea in Male Sprague-Dawley Rats: A Possible Animal Model for Human Keratoacanthoma. M. YUKI, K. YOSHIZAWA, Y. EMOTO, T. YURI, Y. KINOSHITA, A. TSUBURA, I. KUROKAWA (<i>Hirakata, Osaka; Nishinomiya, Hyogo, Japan</i>)	111
TMPRSS4 Expression as a Marker of Recurrence in Patients with Lung Cancer. Y. CHIKAISHI, H. URAMOTO, Y. KOYANAGI, S. YAMADA, S. YANO, F. TANAKA (<i>Kitakyushu; Ishikawa, Japan</i>)	121
Clinicopathological Correlations of Autophagy-related Proteins LC3, Beclin 1 and p62 in Gastric Cancer. G. MASUDA, M. YASHIRO, K. KITAYAMA, Y. MIKI, H. KASASHIMA, H. KINOSHITA, T. MORISAKI, T. FUKUOKA, T. HASEGAWA, K. SAKURAI, T. TOYOKAWA, N. KUBO, H. TANAKA, K. MUGURUMA, O. MASAICHI, K. HIRAKAWA (<i>Osaka, Japan</i>)	129
Antitumor and Antimetastatic Activity of Synthetic Hydroxystilbenes Through Inhibition of Lymphangiogenesis and M2 Macrophage Differentiation of Tumor-associated Macrophages. Y. KIMURA, M. SUMIYOSHI, K. BABA (<i>Toon, Ehime; Takatsuki, Osaka, Japan</i>)	137
Expression of Hedgehog Signals and Growth Inhibition by Itraconazole in Endometrial Cancer. K. INOUE, H. TSUBAMOTO, K. SAKATA, R. SAKANE, H. HAO, S. HIROTA, T. SONODA, H. SHIBAHARA (<i>Nishinomiya, Hyogo, Japan</i>)	149
Association of Tissue Inhibitor of Metalloproteinase-1 Genotypes with Lung Cancer Risk in Taiwan. C.-Y. LAI, W.-S. CHANG, Y.-H. HSIEH, C.-M. HSU, C.-W. TSAI, A.-C. CHEN, C.-H. WANG, D.-T. BAU (<i>Taichung, Taiwan, ROC</i>)	155
Role of DNA Methylation in Cabazitaxel Resistance in Prostate Cancer. K. RAMACHANDRAN, C. SPEER, L. NATHANSON, M. CLAROS, R. SINGAL (<i>Miami, FL, USA</i>)	161
Suppression of Cancer-associated Fibroblasts and Endothelial Cells by Itraconazole in Bevacizumab-resistant Gastrointestinal Cancer. M. HARA, T. NAGASAKI, K. SHIGA, H. TAKEYAMA (<i>Nagoya, Japan</i>)	169
Epigenetic Silencing of the Putative Tumor Suppressor Gene GLDC (Glycine Dehydrogenase) in Gastric Carcinoma. H.L. MIN, J. KIM, W.H. KIM, B.G. JANG, M.A. KIM (<i>Seoul, Korea</i>)	179
Expression of SATB1, MTI/II and Ki-67 in Mycosis Fungoides. A. JANKOWSKA-KONSUR, C. KOBIERZYCKI, A. REICH, J. GRZEGRZOLKA, A. BIENIEK, P. DZIEGIEL (<i>Wroclaw, Poland</i>)	189

Gremlin 2 is Repressed in Invasive Endometrial Cancer and Inhibits Cell Growth <i>In Vitro</i> . H. TSUBAMOTO, K. SAKATA, R. SAKANE, K. INOUE, H. SHIBAHARA, H. HAO, S. HIROTA (<i>Nishinomiya, Hyogo, Japan</i>)	199
Proton Irradiation Sensitizes Radioresistant Non-small Cell Lung Cancer Cells by Modulating Epidermal Growth Factor Receptor-mediated DNA Repair. H.J. PARK, J.S. OH, J.W. CHANG, S.-G. HWANG, J.-S. KIM (<i>Daejeon; Suwon; Seoul, Republic of Korea</i>)	205
p21 ^{CIP1} Induces Apoptosis <i>via</i> Binding to BCL2 in LNCaP Prostate Cancer Cells Treated with MCS-C3, A Novel Carbocyclic Analog of Pyrrolopyrimidine. K.-W. CHOI, H. SUH, H.L. OH, C. RYOU, C.-H. LEE (<i>Gyeonggi-do, Republic of Korea</i>)	213
Growth Inhibition of Osteosarcoma Cell Lines in 3D Cultures: Role of Nitrosative and Oxidative Stress. M. GORSKA, P.B. KRZYWIEC, A. KUBAN-JANKOWSKA, M. ZMIJEWSKI, M. WOZNIAK, J. WIERZBICKA, A. PIOTROWSKA, K. SIWICKA (<i>Gdansk, Poland</i>)	221
Winning Abstracts from the International Cancer Careers Conference 2015.....	231
<i>Clinical Studies</i>	
Ultraviolet Radiation Exposure and the Incidence of Oral, Pharyngeal and Cervical Cancer and Melanoma: An Analysis of the SEER Data. S. ADAMS, J. LIN, D. BROWN, C.D. SHRIVER, K. ZHU (<i>Bethesda, MD, USA</i>)	233
Radioembolization Versus Chemoembolization (DEBDOX) for the Treatment of Unresectable Hepatocellular Carcinoma: A Propensity Matched Study. O. AKINWANDE, P. PHILIPS, C. SCOGGINS, R.C.G. MARTIN (<i>Baltimore, MD; Louisville, KY, USA</i>)	239
Stomach-specific Biomarkers (GastroPanel) Can Predict the Development of Gastric Cancer in a Caucasian Population: A Longitudinal Nested Case-Control Study in Siberia. S. KURILOVICH, A. BELKOVETS, O. RESHETNIKOV, T. OPENKO, S. MALYUTINA, Y. RAGINO, L. SCHERBAKOVA, M. LEJA, L. PALOHEIMO, K. SYRJÄNEN, M. VOEVODA (<i>Novosibirsk, Russian Federation; Riga, Latvia; Helsinki, Finland</i>)	247
Outcomes Following Interval Debulking Surgery in Primary Peritoneal Carcinoma. C.F. CONNOLLY, S. YAHYA, K.K. CHAN, K. SINGH, S. SUNDAR, S.M. ANWAR, I. FERNANDO (<i>Stoke On Trent; Birmingham, UK</i>)	255
Effect of Postmastectomy Radiation on Survival of AJCC pN2/N3 Breast Cancer Patients. Z. SHI, P. PEDDI, G. BURTON, G. MILLS, R. SHI (<i>New York, NY; Shreveport, LA, USA</i>)	261
Primary Hepatic Small Cell Carcinoma: Two Case Reports, Molecular Characterization and Pooled Analysis of Known Clinical Data. A. SHASTRI, P. MSAOUEL, C. MONTAGNA, S. WHITE, M. DELIO, K. PATEL, K. ALEXIS, M. STRAKHAN, T.N. ELRAFEI, L.J. REED (<i>Bronx, NY, USA</i>)	271
A Five-year Survey of Cancer Prevalence in Sudan. M.E.M. SAEED, J. CAO, B. FADUL, O. KADIOGLU, H.E. KHALID, Z. YASSIN, S.M. MUSTAFA, E. SAEED, T. EFFERTH (<i>Mainz, Germany; Khartoum, Sudan</i>)	279
Prognostic Significance of Serum and Urinary Neopterin Concentrations in Patients with Rectal Carcinoma Treated with Chemoradiation. M. ZEZULOVÁ, M. BARTOUŠKOVÁ, E. HLÍDKOVÁ, J. JURÁŇOVÁ, B. ČERVINKOVÁ, E. KASALOVÁ, T. ADAM, L.K. KRČMOVÁ, D. SOLICHOVÁ, K. CWIERTKA, D. VRÁNA, B. MELICHAR (<i>Olomouc; Hradec Králové, Czech Republic</i>)	287
METRO1: A Phase I Study of Metronomic Chemotherapy in Adults with Advanced Refractory Solid Tumors. S. LAUNAY, R. SABATIER, S. BRUNELLE, B. ESTERNI, C. TARPIN, F. VIRET, G. GRAVIS, M. CAPPIELLO, M. PROVANSAL, J.-M. EXTRA, F. BERTUCCI, P. VIENS, A. GONCALVES (<i>Marseille, France</i>)	293

More than 20-year Follow-Up After Vascularised Fibula Head Graft for Oncological Shoulder Joint Reconstruction. T. KUBO, T. FURUTA, M. OCHI (<i>Hiroshima, Japan</i>)	301
Carboplatin plus Weekly Paclitaxel with Bevacizumab for First-line Treatment of Non-small Cell Lung Cancer. T. KUBOTA, Y. OKANO, M. SAKAI, M. TAKAOKA, T. TSUKUDA, K. ANABUKI, S. KAWASE, S. MIYAMOTO, H. OHNISHI, N. HATAKEYAMA, H. MACHIDA, T. URATA, A. YAMAMOTO, F. OGUSHI, A. YOKOYAMA (<i>Kochi, Japan</i>)	307
Clinical Features and Treatment Outcomes in Patients with Extragonadal Germ Cell Tumors: A Single-center Experience. T. MAKINO, H. KONAKA, M. NAMIKI (<i>Kanazawa, Ishikawa, Japan</i>)	313
The Effect of Payer Status on Survival of Patients with Stage I/II Non-small Cell Lung Cancer: NCDB 1998-2011. R. SHI, R. DIAZ, Z. SHI, E. DUVALL, G. MILLS (<i>Shreveport, LA; New York, NY, USA</i>) ...	319
Effect of Payer Status on Relative Survival of Patients with Laryngeal Cancer. V. MEHTA, Z. SHI, G.M. MILLS, C.-A.O. NATHAN, R. SHI (<i>Shreveport, LA; New York, NY, USA</i>)	327
Clinicopathological Features of Surgically-resected Biliary Tract Cancer Following Chemo-radiation Therapy. S. KOBAYASHI, K. GOTOH, H. TAKAHASHI, H. AKITA, S. MARUBASHI, T. YAMADA, T. TESHIMA, K. NISHIYAMA, M. YANO, H. OHIGASHI, O. ISHIKAWA, M. SAKON (<i>Osaka, Japan</i>) ...	335
Aldehyde Dehydrogenase-1 Expression Predicts Unfavorable Outcomes in Patients with Esophageal Squamous Cell Carcinoma. Y. JI, Xiaoli LI, Y. LI, Y. ZHONG, J. CAO, R. XU, J. WANG, F. ZHOU, Xiaoran LI, D. YU, J.-G. WEN, M.A. GOSCINSKI, M. ZHANG, J.M. NESLAND, Z. SUO (<i>Zhengzhou; Anyang, Henan, PR China; Oslo, Norway</i>)	343
Effective Treatment of Pleural Epithelioid Hemangio-endothelioma with Pazopanib: A Case Report. D. SCHALLIER, B.-J. BERENDES, P. LEFESVRE, H. EVERAERT (<i>Brussels; Aalst, Belgium</i>)	351
Treatment Results of MammoSite Catheter in Combination with Whole-breast Irradiation. A. GITT, H. BÖSE-RIBEIRO, C. NIEDER, P.G. KUP, H. HERMANI, H. BÜHLER, H.Y. ERGÖNENÇ, D. DRÜPPEL, I.A. ADAMIETZ, K. FAKHRIAN (<i>Bochum; Herne, Germany; Bodø; Tromsø, Norway</i>)	355
Efficacy and Safety Profile of Enzalutamide for Japanese Patients with Castration-resistant Prostate Cancer. M. YAMASAKI, T. YUASA, S. YAMAMOTO, T. HAYASHI, M. OGAWA, M. SAKURA, H. MASUDA, I. FUKUI, J. YONESE (<i>Tokyo, Japan</i>)	361
¹⁸ F-Fluorodeoxyglucose Positron Emission Tomography for Evaluating the Response to Neoadjuvant Chemotherapy in Advanced Esophageal Cancer. Y. TANI, M. NAKAJIMA, M. KIKUCHI, K. IHARA, H. MUROI, M. TAKAHASHI, Y. DOMEKI, K. OKAMOTO, S. YAMAGUCHI, K. SASAKI, T. TSUCHIOKA, S. SAKAMOTO, H. KATO (<i>Tochigi, Japan</i>)	367
Immunoglobulin G (IgG) Subtype Is Associated with a Favorable Survival Prognosis in Patients Irradiated for Spinal Cord Compression from Myeloma. D. RADES, A.J. CONDE-MORENO, N. GEBAUER, T. BARTSCHT, J. CACICEDO, B. SEGEDIN, S.E. SCHILD (<i>Lübeck, Germany; Castellón; Vizcaya, Spain; Ljubljana, Slovenia; Scottsdale, AZ, USA</i>)	375
Favorable Outcomes of Hepatectomy for Ruptured Hepatocellular Carcinoma: Retrospective Analysis of Primary R0-Hepatectomized Patients. H. UCHIYAMA, R. MINAGAWA, S. ITOH, K. KAJIYAMA, N. HARIMOTO, T. IKEGAMI, T. YOSHIZUMI, K. SHIRABE, K. TAKENAKA, Y. MAEHARA (<i>Fukuoka, Japan</i>)	379
Radiotherapy as Definitive Treatment of Patients with Primary Vulvar Carcinoma Unfit for Surgery and with Recurrent Vulvar Carcinoma After Primary Radical Surgery: Results of a Retrospective Single-center Study. C. LALISCIA, A. GADDUCCI, S. MONTRONE, R. TANA, R. MORGANTI, M.G. FABRINI (<i>Pisa, Italy</i>)	387

Implication of ¹⁸ F-Fluorodeoxyglucose Uptake of Affected Axillary Lymph Nodes in Cases with Breast Cancer. T. FUJII, R. YAJIMA, H. TATSUKI, K. OOSONE, H. KUWANO (<i>Gunma, Japan</i>)	393
Targeted Therapy for Resistant Cholangiocarcinoma with Bevacizumab or Cetuximab Added to Failed Cytotoxic Drug Cores. H.W. BRUCKNER, A. HIRSCHFELD, M. SCHWARTZ (<i>New York; Bronx, NY, USA</i>)	399
Neutrophil to Lymphocyte Ratio Predicts Therapeutic Outcome After Pancreaticoduodenectomy for Carcinoma of the Ampulla of Vater. K. HARUKI, H. SHIBA, T. HORIUCHI, Y. SHIRAI, R. IWASE, Y. FUJIWARA, K. FURUKAWA, T. MISAWA, K. YANAGA (<i>Tokyo, Japan</i>)	403
Estimating the Survival of Elderly Patients with Renal Cell Carcinoma Presenting with Malignant Spinal Cord Compression. D. RADES, A.J. CONDE-MORENO, J. CACICEDO, B. SZEGEDIN, S.E. SCHILD (<i>Lübeck, Germany; Castellón; Vizcaya, Spain; Ljubljana, Slovenia; Scottsdale, AZ, USA</i>)	409
Perioperative Paravertebral Regional Anaesthesia and Breast Cancer Recurrence. P. KAIRALUOMA, J. MATTSON, P. HEIKKILÄ, P. PERE, M. LEIDENIUS (<i>Helsinki, Finland</i>)	415
Mitomycin C and Capecitabine (MiX Trial) for Therapy of Patients with Metastasized, Breast Cancer Pretreated with Anthracycline. K. ALMSTEDT, P.A. FASCHING, A. SCHARL, C. RAUH, B. RACK, A. HEIN, C.C. HACK, C.M. BAYER, S.M. JUD, M.G. SCHRAUDER, M.W. BECKMANN, M.P. LUX (<i>Erlangen; Amberg; Munich, Germany</i>)	419
Loss of Peroxiredoxin Expression Is Associated with an Aggressive Phenotype in Pancreatic Adenocarcinoma. J. ISOHOOKANA, K.-M. HAAPASAARI, Y. SOINI, P. KARIHTALA (<i>Oulu; Kuopio, Finland</i>)	427
Validation of EP1 Antibody Clone for Estrogen Receptor Immunohistochemistry for Breast Cancer. C. DIORIO, D. FURRER, A. MICHAUD, S. LABERGE, I. POPA, S. JACOB, L. PROVENCHER, J.-C. HOGUE (<i>Quebec, QC, Canada</i>)	435
Living Donor Liver Transplantation for Hepatocellular Carcinoma within Milan Criteria in the Present Era. T. YOSHIZUMI, N. HARIMOTO, S. ITOH, H. OKABE, K. KIMURA, H. UCHIYAMA, T. IKEGAMI, T. IKEDA, Y. MAEHARA (<i>Fukuoka, Japan</i>)	439
Pemetrexed Versus Erlotinib in the Second-line Treatment of Patients with Advanced-stage Non-squamous NSCLC Harboring Wild-type <i>EGFR</i> Gene. O. FIALA, M. PESEK, J. FINEK, M. SVATON, M. MINARIK, L. BENESOVA, Z. BORTLICEK, R. KUCERA, O. TOPOLCAN (<i>Prague; Brno, Czech Republic</i>)	447
Epidermal Growth Factor Receptor Gene Amplification in Patients with Advanced-stage NSCLC. O. FIALA, M. PESEK, J. FINEK, M. MINARIK, L. BENESOVA, O. SOREJS, M. SVATON, Z. BORTLICEK, R. KUCERA, O. TOPOLCAN (<i>Prague; Brno, Czech Republic</i>)	455
Prognostic Significance of Serum Tumor Markers in Patients with Advanced-stage NSCLC Treated with Pemetrexed-based Chemotherapy. O. FIALA, M. PESEK, J. FINEK, M. SVATON, O. SOREJS, Z. BORTLICEK, R. KUCERA, O. TOPOLCAN (<i>Prague; Brno, Czech Republic</i>)	461
Feasibility of Single-incision Laparoscopic Surgery plus One Assist Port for Anterior Resection. H. KAWAHARA, T. MISAWA, K. WATANABE, S. HOJO, K. ISHIDA, T. AKIBA, K. YANAGA (<i>Chiba; Tokyo, Japan</i>)	467
Co-deletion of 1p/19q as Prognostic and Predictive Biomarker for Patients in West Bohemia with Anaplastic Oligodendroglioma. J. POLIVKA JR, J. POLIVKA, T. REPIK, V. ROHAN, O. HES, O. TOPOLCAN (<i>Pilsen, Czech Republic</i>)	471
Errata	477
Book Reviews	479
Announcements	485