

# ANTICANCER RESEARCH

International Journal of Cancer Research and Treatment

ISSN: 0250-7005

Volume 44, Number 10, October 2024

## Contents

### Reviews

- True Benefits of Immune Checkpoint Inhibitors in the Treatment of Malignant Pleural Mesothelioma in Japan. K. KURIBAYASHI, J. HIRANO (*Hyogo; Osaka, Japan*) ..... 4135
- Role of the Hippo-YAP/TAZ Pathway in Epithelioid Hemangioendothelioma and its Potential as a Therapeutic Target. H. SUTO (*Hyogo, Japan*) ..... 4147
- Side-effects of Phytotherapeutics in Cancer Care – A Review of Inconsistencies in National and International Databases. J. BÜTTNER, J. BÜNTZEL, J. BÜNTZEL, J. HÜBNER (*Jena; Göttingen; Nordhausen, Germany*) ..... 4155

### Experimental Studies

- Tumor Dormancy Within the Lymphovascular Embolus Is Regulated by Multiple Metabolism-signaling Pathways. Y. YE, J. WANG, J. DILLARD, S.H. BARSKY (*Nashville, TN; San Diego, CA, USA*) ..... 4165
- Antitumor Potential of Guttiferone E Combined With Carboplatin Against Osimertinib-resistant H1975 Lung Cancer Through Apoptosis. A. NATHANI, I. KHAN, M.H. TANIMOTO, J.A.A. ALDANA MEJÍA, A.M. DE MIRANDA, A. RISHI, S. DEV, J.K. BASTOS, M. SINGH (*Tallahassee, FL; Detroit, MI, USA; Ribeirão Preto, SP, Brazil*) ..... 4175
- Enhancing Retinoic Acid-mediated Effects Through Inhibition of CYP26A1, CYP26B1 and HGF Signaling in Neuroblastoma Cells. R.S. ISSA, M. KAEHLER, N.S. POMMERT, I. CASCORBI, V. WAETZIG (*Kiel, Germany*) ..... 4189
- TMPRSS2:ERG* Gene Fusion Might Predict Resistance to PARP Inhibitors in Metastatic Castration-resistant Prostate Cancer. T.S. POULSEN, A.N. LØRUP, P. KONGSTED, R.L. EEFSSEN, M. HØJGAARD, E.V. HØGDALL (*Herlev; Copenhagen, Denmark*) ..... 4203
- Loss of Malignancy of Super-Methotrexate-resistant Osteosarcoma Cells Is Associated With an Increase of Methylated Histone Marks H3K9me3 and H3K27me3. Y. AOKI, Y. KUBOTA, N. MASAKI, K. OBARA, Y. TOME, M. BOUVET, K. NISHIDA, R.M. HOFFMAN (*San Diego, CA, USA; Okinawa, Japan*) ..... 4213

Contents continued on the back cover

Therapeutic Responses to Two New SN-38 Derivatives in Colorectal Cancer Patient-Derived Xenografts and Respective 3D <i>In Vitro</i> Cultures. K. UNRUG-BIELAWSKA, D. EARNSHAW, M. CYBULSKA-LUBAK, E. KANIUGA, Z. SANDOWSKA-MARKIEWICZ, M. STATKIEWICZ, I. RUMIENCZYK, M. DĄBROWSKA, J. KOCIK-KROL, K. KLIMKIEWICZ, M. URBANOWICZ, B. NAUMCZUK, L. KOZERSKI, M. KRZYKAWSKI, M. MIKULA, J. OSTROWSKI ( <i>Warsaw; Kraków, Poland</i> ) .....	4219
Impacts of Matrix Metalloproteinase-8 Genotypes, Smoking, Alcohol Drinking, and <i>Helicobacter pylori</i> Infection on Gastric Cancer. C.-K. FU, W.-C. CHIEN, Y.-J. CHEN, M.-D. YANG, J.-C. CHEN, T.-W. KE, C.-W. TSAI, W.-S. CHANG, Y.-C. HUNG, D.-T. BAU ( <i>Taichung; Taipei; Changhua, Taiwan, ROC</i> ).....	4225
Identification of New Potential Targets for Pancreatic Ductal Adenocarcinoma by Integrated Bioinformatic Analysis. R. LI, T. YANG, K. REN, J. LI, Y. NAGAKAWA, Y. ZENG, Y. NATSUYAMA, S.Q. YI ( <i>Tokyo, Japan; Yun Nan; Shanghai, PR China</i> ).....	4233
Sparing Effect on Cell Survival Under Normoxia Using Ultra-high Dose Rate Proton Beams from a Compact Superconducting AVF Cyclotron. M. YAGI, K. MINAMI, K. FUJITA, S. NOMURA, N. KAMIGUCHI, K. NAGATA, R. HIDANI, D. AMANO, K. SASAI, S. SHIMIZU, K. OGAWA ( <i>Suita; Tokyo; Osaka, Japan</i> ) .....	4251
Characterization of Molecular Subtypes of Rat Mammary Cancer and Their Association With Environmental Exposures. Y. NISHIMURA, D. IIZUKA, M. TAKABATAKE, K. DAINO, M. NISHIMURA, T. MORIOKA, Y. SHIMADA, S. KAKINUMA, T. IMAOKA ( <i>Chiba; Tokyo; Rokkasho-mura, Japan</i> ).....	4261
Anticancer Effects of BAF312 (Siponimod) in Epithelial Ovarian Cancer. H. HA, J.-Y. RYU, S. YOON, Y.-J. CHO, J.-J. CHOI, J.R. HWANG, J.-Y. CHOI, H.D. HAN, J.-W. LEE ( <i>Seoul; Busan, Republic of Korea</i> ) .....	4273
MiR-140-3p Improves Sensitivity to Docetaxel by Suppressing PD-L1/ABCG2/MVP Expression in Lung Adenocarcinoma. M. KWON, D. LIM, J. PARK, W. GIL, J. JUNG, S. JUNG, C. KIM, M. GO, Y.H. CHEONG, H.S. PARK, Y.-B. EOM, S.-A. PARK ( <i>Asan; Yongin; Daejeon, Republic of Korea</i> ).....	4283
Repurposing Valrubicin as a Potent Inhibitor of Ovarian Cancer Cell Growth. J. LEE, K. HEO ( <i>Seoul, Republic of Korea</i> ) .....	4301
Potential Anti-tumor Properties of PDIA4 in Lung Adenocarcinoma. H.J. KIM, D.-Y. KIM ( <i>Daegu, Republic of Korea</i> ) .....	4309
Methyl Gallate Suppresses Canine Mammary Gland Tumors by Inducing Apoptosis and Anti-angiogenesis. J. CHOI, J.-Y. CHOI, H. JANG, Y.-J. JANG, J. SONG, G.-M. KIM, J.-W. SEOL ( <i>Iksan, Republic of Korea</i> ).....	4317
Magnolol Induces Apoptosis and Suppresses Immune Evasion in Non-small Cell Lung Cancer Xenograft Models. P.-J. LIN, Y.-C. KUO, P.-W. HU, W.-L. CHEN, S.-C. CHANG, F.-T. HSU, J.-Y. WU, J.-H. CHEN ( <i>Changhua; Hsinchu; Taichung; Taipei; Yi-Lan, Taiwan, ROC</i> ) .....	4327
5,10,15,20-Tetrakis(4-sulfonatophenyl)porphyrin Zinc and Chloro-aluminum Phthalocyanine Disulfonate in Photodynamic Therapy of Colorectal Adenocarcinoma <i>In Vitro</i> . J. HOSIK, B. HOSIKOVA, H. KOLAROVA, R. BAJGAR ( <i>Olomouc, Czech Republic</i> ) .....	4339
Promising Approach for Optimizing <i>In Vivo</i> Fluorescence Imaging in a Tumor Mouse Model: Precision in Cancer Research. Y.-J. CHOI, S.C. RAMOS, H.B. SIM, J.Y. HAN, D.-H. PARK, S.-K. MUN, J.-B. LEE, C.-H. LEE, Y.-A. LEE, J.-J. KIM ( <i>Suncheon; Asan; Seoul, Republic of Korea; Singapore, Republic of Singapore</i> ) .....	4347
Inhibition of Epithelial–Mesenchymal Transition and Migration in Cisplatin-resistant Cancer Through Combined Treatment With Cisplatin and SH003. H.S. CHOI, J.K. KU, S.G. KO, P.Y. YUN ( <i>Seongnam; Seoul, Republic of Korea</i> ) .....	4359

*Clinical Studies*

Nondysplastic Colon Crypts Intercalated in Tubular Adenomas Support Field Cancerization. C.A. RUBIO, M. VIETH, C. LANG-SCHWARZ ( <i>Stockholm, Sweden; Bayreuth, Germany</i> ) .....	4371
Systemic Inflammation Indexes and Risk of Immune-related Adverse Events in Patients With Metastatic Urothelial Carcinoma Treated With Immunotherapy. M. DIONESE, D. BIMBATTI, F. PIERANTONI, E. LAI, E. ERBETTA, N. CAVASIN, S. JUBRAN, U. BASSO, M. MARUZZO ( <i>Padua; Monselice, Italy</i> ) .....	4379
Identifying High Recurrence Risk in Breast Carcinoma Patients Through Spatial Transcriptomic Analysis. J. CHU, S.-I. DO, H.-S. KIM ( <i>Seoul, Republic of Korea</i> ) .....	4387
Therapy Intensity Outweighs the Prognostic Importance of the Timing of Chemoradiotherapy in Newly Diagnosed Glioblastoma Patients. J. LEPPERT, C. DITZ, M. GROHMANN, C. ZIEMANN, C. HILLBRICHT, L. LIUBICH, M.V. MATONE, D. RADES, J. GLIEMROTH, A. LÖSER ( <i>Lübeck; Hamburg, Germany; Kyiv, Ukraine</i> ) .....	4403
Factors Limiting Ostomy Reversal After Cytoreductive Surgery for Ovarian Cancer: A Retrospective Study. B. NAVARRO SANTANA, F. GUYON, O. ARENCIBIA, G. BABIN, E. TOMMASETTI, D. GONZÁLEZ, S. PIEDIMONTE, A. MARTÍN MARTÍNEZ ( <i>Las Palmas, Spain; Bordeaux, France; Montreal, Canada</i> ) .....	4413
Palliative Radiation Treatment in Patients Managed With Advanced/Interventional Pain Therapy such as Pump-delivered Continuous Opioids. C. NIEDER, S.M. JENSEN, S. NILSEN, E.C. HAUKLAND ( <i>Bodø; Tromsø; Stavanger, Norway</i> ) .....	4419
Early Urinary Potassium Level Predicts High-dose Methotrexate Elimination Delay in Primary Central Nervous System Lymphoma. V. HARLAY, A. BERTUCCI, C. BOUCARD, G. PETRIRENA, C. CAMPELLO, M. BARRIÉ, D. AUTRAN, O. CHINOT, E. TABOURET ( <i>Marseille, France</i> ) .....	4427
Predictive Biomarkers of Lymph Node Metastasis in Early Gastric Cancer: A Reference of Clinicopathological Characteristics, Protein Expression, Epstein-Barr Virus Status, and Microsatellite Instability. S.J. BYEON, M.S. CHANG, H.E. PARK, D. KANG, Y. WANG, D.-S. HAN, H.S. AHN, S.C. HEO, M.S. LEE, W. KIM, S.H. KIM, D.-W. AHN, K.L. LEE ( <i>Seoul, Republic of Korea</i> ) .....	4435
Intraoperative Bleeding Complications Leading to Blood Transfusions (BloTs) in 17,412 Cholecystectomies in Finland: A Study With Special Reference to Elderly Patients. A. KIVIVUORI, P. LAMMI, M. ESKELINEN, T. RANTANEN, H. PAAJANEN, J. PULKKINEN, M. UKKONEN ( <i>Kuopio; Tampere; Jyväskylä, Finland</i> ) .....	4449
Changes in Bladder Volume During Radiotherapy for Prostate Cancer. D. RADES, F. CREMERS, C. ZIEMANN, L. SPLETTSTÖSSER, C.A. NARVAEZ-WOLF, A. AL-SALLOOL, M. von STADEN, J.D. KÜTER, S. JANSSEN, C. TIMKE ( <i>Lübeck; Hannover; Flensburg, Germany</i> ) .....	4457
Hotspots of Anal Cancer Screening in a High-risk Population: A Clinical Study on Free Provision, Best Method, Self-sampling, and Independent Risk Factors. E. VIRGILIO, C. SALVEMINI, M.G. TREGLIA, E. THAI, E. FRANCHI, S. PANICO, L. IPPOLITO, C. PAVLIDIS, A. ANNICCHIARICO, E.M. SILINI, R. COSTI ( <i>Parma; Fidenza, Italy</i> ) .....	4465
Contribution of Immunoscore to Survival Prediction in Pancreatic Ductal Adenocarcinoma. H. MORI, T. MIYAKE, H. MAEHIRA, M. SHIOHARA, H. IIDA, N. NITTA, M. TANI ( <i>Shiga, Japan</i> ) .....	4483
Serum Inflammatory Dynamics as Novel Biomarkers for Immune Checkpoint Inhibitors in Non-small-cell Lung Cancer With Bone Metastases. Y. ASANO, N. YAMAMOTO, K. HAYASHI, A. TAKEUCHI, S. KATO, S. MIWA, M. OKUDA, I. MATSUMOTO, S. YANO, S. DEMURA ( <i>Kanazawa, Japan</i> ) .....	4493
PD-L1 as a Biomarker for the Efficacy of Durvalumab in Stage III EGFR Mutant NSCLC. I. KIM, S.H. CHOI, S.Y. LEE, S.S. YOO, J.E. PARK, K.C. SHIN, J.G. JANG, K.S. HONG, Y.S. KWON, S.H. PARK, K.J. CHOI, C.Y. JUNG, M.H. KIM, S.H. KIM, H.Y. SEOL, J. KIM, J.H. PARK, T.H. KIM, J.S. EOM, J.H. AHN ( <i>Busan; Daegu; Yangsan; Changwon, Republic of Korea</i> ) .....	4505

Safety and Efficacy of Durvalumab After Chemoradiotherapy in Antinuclear Antibody-positive Patients With Non-small Cell Lung Cancer. A. TSUKAGUCHI, A. TAMIYA, S. FUKUDA, Y. IWAHASHI, K. KANAOKA, Y. TANAKA, Y. INAGAKI, Y. TANIGUCHI, K. NAKAO, T. KAGAWA, Y. MATSUDA, K. OKISHIO ( <i>Osaka, Japan</i> ).....	4517
CD8-Positive T-Cells Are Key Immune Cells for Predicting the Therapeutic Effect of Neoadjuvant Chemotherapy in Triple-negative Breast Cancer. N. UENAKA, E. SATO, Y. HORIMOTO, S. KAWAI, M. ASAOKA, H. KAISE, K. YAMADA, T. ISHIKAWA ( <i>Tokyo; Ibaraki, Japan</i> ).....	4525
Clinical Significance of Granzyme B Gene Expression in Pathological Stage II/III Gastric Cancer After Curative Gastrectomy. T. OSHIMA, I. HASHIMOTO, Y. HIROSHIMA, Y. KIMURA, M. TANABE, Y. NAKAYAMA, S. NAGASAWA, K. KANEMATSU, T. AOYAMA, T. YAMADA, T. OGATA, Y. MIYAGI ( <i>Yokohama, Japan</i> ).....	4537
Radiation-induced Esophagitis in Breast Cancer Patients Treated With Supraclavicular Field Irradiation. Z.M. AHMED, M. ABOUEGYLAH, G.A. KHEDR, H.T. EICH, K. ELSAYAD, A.M. ELENBABY ( <i>Mombasa, Kenya; Alexandria, Egypt; Münster, Germany</i> ) .....	4543
The Dominant Component and Clinicopathological Characteristics of Combined Hepatocellular-cholangiocarcinoma After Radical Resection. K. MATSUBARA, T. KOBAYASHI, T. TADOKORO, Y. NAMBA, S. FUKUHARA, K. OSHITA, N. HONMYO, S. KURODA, K. ARIHIRO, H. OHDAN ( <i>Hiroshima, Japan</i> ) .....	4551
Thyroid Cancer With Autocrine Sialyl-fibronectin Depletion Has a Poor Prognosis due to EMT Progression. R. MIYAKE, H. TAKEYAMA, Y. MANOME, M. KOYAMA, I. TABELI, H. SHIOYA, T. KAZAMA, H. NOGI ( <i>Tokyo; Yokohama, Japan</i> ) .....	4561
Loss of Skeletal Muscle Mass During Neoadjuvant Chemotherapy for Pancreatic Cancer Is Related to the Continuation of S-1 Adjuvant Chemotherapy After Pancreatectomy. S. KAWAHARA, T. AOYAMA, I. HASHIMOTO, R. KANEMOTO, N. MATSUSHITA, M. KAMIYA, Y. ATSUMI, Y. MAEZAWA, K. KAZAMA, M. MURAKAWA, S. KOBAYASHI, M. UENO, N. YAMAMOTO, T. OSHIMA, N. YUKAWA, A. SAITO, S. MORINAGA ( <i>Kanagawa; Yokohama, Japan</i> ) .....	4569
Clinical Significance of <i>HRNR</i> Expression in Patients With Stage II/III Gastric Cancer After Curative Gastrectomy. T. OSHIMA, I. HASHIMOTO, Y. HIROSHIMA, Y. KIMURA, M. TANABE, Y. NAKAYAMA, S. NAGASAWA, K. KANEMATSU, T. AOYAMA, T. YAMADA, T. OGATA, Y. MIYAGI ( <i>Yokohama, Japan</i> ) .....	4579
Analysis of Initial Outcomes of Gas-insufflation One-step Single-port Transaxillary (GOSTA) Robotic Thyroidectomy for Thyroid Cancer. Y.M. NA, S.C. PARK, S.Y. AN, H.U. MA, Y.B. KWON, Y.J. RYU, J.S. CHO, M.H. PARK ( <i>Hwasun; Gwangju, Republic of Korea</i> ) .....	4585
Clinicopathological Review of Head and Neck Squamous Cell Carcinomas After Neoadjuvant Chemotherapy. R. KUGA, K. HASHIMOTO, H. YAMAMOTO, M. TANIGUCHI, T. MANAKO, M. SATO, R. KOGO, M. MATSUO, Y. ODA, T. NAKAGAWA ( <i>Fukuoka; Okayama, Japan</i> ) .....	4593
Synchronous Pancreatic Ductal Adenocarcinoma and Nasopharyngeal Carcinoma With Associated Novel Pathogenic ATM Mutation. L. XU, A. TIAN, R. FAN, J. LAI ( <i>Sacramento, CA; Cleveland, OH, USA</i> ).....	4605
Awake Surgery for Right Frontal Lobe Glioma: Preserving Emotional Recognition and Facilitating Early Return to Work. K. YAMAMOTO, R. TAMURA, S. WAKAHARA, K. KOJIMA, M. ANDO, M. YO, K. KOSUGI, Y. KITAMURA, R. UEDA, A. ISHIKAWA, T. TSUJI, M. TODA ( <i>Tokyo, Japan</i> ) .....	4609
ABSTRACTS OF THE 34th ANNUAL MEETING OF THE ITALIAN SOCIETY OF URO-ONCOLOGY (SIUrO). 3-5 October 2024 ( <i>Bologna, Italy</i> ) .....	4617
Corrigenda.....	4663