

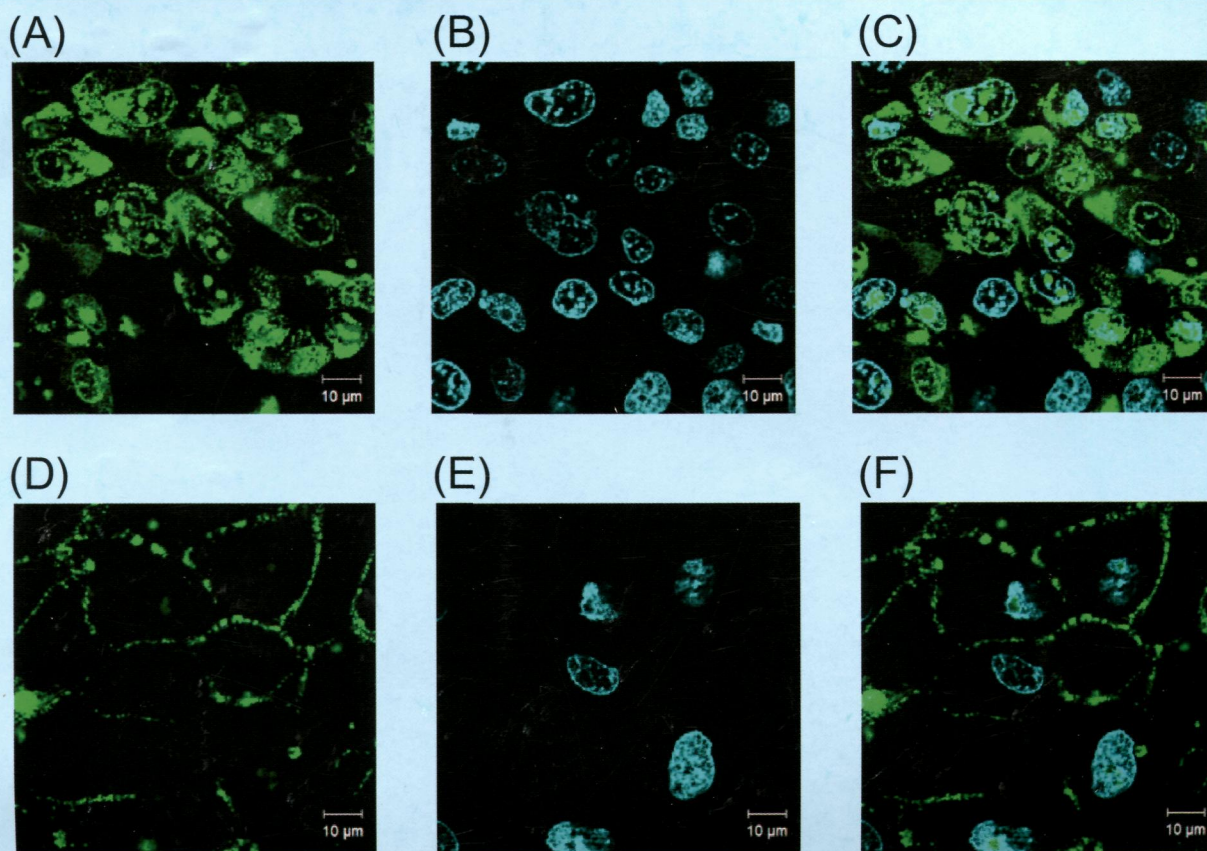
# Biological and Pharmaceutical Bulletin

December 2013

BPBLEO 36 (12) 1871–2022 (2013)

Vol. 36 No. 12

Biological and Pharmaceutical Bulletin succeeds to Journal of Health Science from 2012.



**Cover Figure** Protamine Internalization in Cultured Kidney Cells

*pp.* 1942–1949

**Highlighted Paper** • YM155 Sensitizes TNBC Cells to Tubulin Inhibitors  
(Naoki Kaneko *et al.*) *pp.* 1921–1927



THE PHARMACEUTICAL SOCIETY OF JAPAN

<http://bpb.pharm.or.jp>

# Biological and Pharmaceutical Bulletin

Vol. 36, No. 12 December 2013

© Copyright, 2013, by the Pharmaceutical Society of Japan.

## Contents

### Review

- Neuropharmacologic Studies on the Brain Serotonin<sub>1A</sub> Receptor Using the Selective Agonist Osemozotan  
**T. Matsuda** ..... 1871

### Regular Articles

- Probucol Inhibited Nox2 Expression and Attenuated Podocyte Injury in Type 2 Diabetic Nephropathy of db/db Mice  
**G. Zhou, Y. Wang, P. He, and D. Li** ..... 1883
- Quantitative Evaluation of Initial Symptoms as Predictors to Detect Adverse Drug Reactions Using Bayes' Theory: Expansion and Evaluation of Drug-Adverse Drug Reaction-Initial Symptom Combinations Using Adverse Event Reporting System Database  
**D. Kobayashi, S. Hosaka, E. Inoue, K. Ohshima, N. Kutsuma, S. Oshima, and Y. Okuno** ..... 1891
- Effect of Polyphenols on 3-Hydroxy-3-methylglutaryl-Coenzyme A Lyase Activity in Human Hepatoma HepG2 Cell Extracts  
**S. Nakagawa, Y. Kojima, K. Sekino, and S. Yamato** ..... 1902
- The Development of Ternary Nanoplexes for Efficient Small Interfering RNA Delivery  
**E. Şalva, S. Özbaş Turan, and J. Akbuğa** ..... 1907
- Inhibition of Nitric Oxide and Tumour Necrosis Factor- $\alpha$  Production in Peritoneal Macrophages by *Aspergillus nidulans* Melanin  
**R. C. R. Gonçalves, R. R. Kitagawa, M. S. G. Raddi, I. Z. Carlos, and S. R. Pombeiro-Sponchiado**... 1915
- \* Synergistic Antitumor Activities of Sepantronium Bromide (YM155), a Survivin Suppressant, in Combination with Microtubule-Targeting Agents in Triple-Negative Breast Cancer Cells  
**N. Kaneko, K. Yamanaka, A. Kita, K. Tabata, T. Akabane, and M. Mori** ..... 1921
- Neuroprotective Effect of *trans*-Cinnamaldehyde on the 6-Hydroxydopamine-Induced Dopaminergic Injury  
**J.-H. Pyo, Y.-K. Jeong, S. Yeo, J.-H. Lee, M.-Y. Jeong, S.-H. Kim, Y.-G. Choi, and S. Lim** ..... 1928
- Comparison of Inhibitory Duration of Grapefruit Juice on Organic Anion-Transporting Polypeptide and Cytochrome P450 3A4  
**S. Tanaka, S. Uchida, S. Miyakawa, N. Inui, K. Takeuchi, H. Watanabe, and N. Namiki** ..... 1936
- Characterization of Protamine Uptake by Opossum Kidney Epithelial Cells  
**J. Nagai, T. Komeda, Y. Katagiri, R. Yumoto, and M. Takano** ..... 1942
- Osthole Reverses Beta-Amyloid Peptide Cytotoxicity on Neural Cells by Enhancing Cyclic AMP Response Element-Binding Protein Phosphorylation  
**Y. Hu, Q. Wen, W. Liang, T. Kang, L. Ren, N. Zhang, D. Zhao, D. Sun, and J. Yang** ..... 1950
- Prediction of *in Vivo* Carbamazepine 10,11-Epoxidation from *in Vitro* Metabolic Studies with Human Liver Microsomes: Importance of Its Sigmoidal Kinetics  
**M. Sakamoto, T. Itoh, and R. Fujiwara** ..... 1959
- Development of a Specific and Sensitive Enzyme-Linked Immunosorbent Assay for the Quantification of Imatinib  
**T. Saita, M. Shin, and H. Fujito** ..... 1964

\* *Highlighted Paper selected by Editor-in-Chief*

The selection is based upon originality, scientific contributions, methodological pertinence, and composition.

Supplementary Seleno-L-methionine Suppresses Active Cutaneous Anaphylaxis Reaction <b>T. Arakawa, T. Deguchi, F. Sakazaki, H. Ogino, T. Okuno, and H. Ueno</b> .....	1969
Use of the <i>psbA-trnH</i> Region to Authenticate Medicinal Species of Fabaceae <b>T. Gao, X. Ma, and X. Zhu</b> .....	1975
Asiatic Acid from <i>Potentilla chinensis</i> Attenuate Ethanol-Induced Hepatic Injury via Suppression of Oxidative Stress and Kupffer Cell Activation <b>J. Wei, Q. Huang, R. Huang, Y. Chen, S. Lv, L. Wei, C. Liang, S. Liang, L. Zhuo, and X. Lin</b> .....	1980
Improvement of Depression-Like Behavior and Memory Impairment with the Ethanol Extract of <i>Pleurotus eryngii</i> in Ovariectomized Rats <b>A. Minami, H. Matsushita, Y. Horii, D. Ieno, Y. Matsuda, M. Saito, H. Kanazawa, Y. Ohyama, A. Wakatsuki, A. Takeda, K. I. P. J. Hidari, V. Sabaratnam, and T. Suzuki</b> .....	1990
Niflumic Acid Activates Additional Currents of the Human Glial L-Glutamate Transporter EAAT1 in a Substrate-Dependent Manner <b>K. Takahashi, R. Ishii-Nozawa, K. Takeuchi, K. Nakazawa, Y. Sekino, and K. Sato</b> .....	1996

## Notes

Senescence Marker Protein-30/Gluconolactonase Expression in the Mouse Ovary during Gestation <b>Y. Kagami, Y. Kondo, S. Handa, N. Maruyama, and A. Ishigami</b> .....	2005
Reduced Plasma Glucose by Asparagine Synthetase Knockdown in the Mouse Liver <b>S. Iida, H. Kamiya, A. Nakaya, Y. Hayashi, A. Sawada, N. Kaji, Y. Baba, and H. Harashima</b> .....	2009
Emulsification Using Highly Hydrophilic Surfactants Improves the Absorption of Orally Administered Coenzyme Q10 <b>Y. Sato, H. Mutoh, M. Suzuki, Y. Takekuma, K. Iseki, and M. Sugawara</b> .....	2012
Induction of Hepatocyte Growth Factor Production in Human Dermal Fibroblasts by Caffeic Acid Derivatives <b>M. Kurisu, R. Nakasone, Y. Miyamae, D. Matsuura, H. Kanatani, S. Yano, and H. Shigemori</b> .....	2018
Index of Vol. 36 .....	vi
Keyword Index of Vol. 36 .....	vii

**About the cover:** The figure shows the intracellular localization of fluorescein isothiocyanate (FITC)-labeled protamine in opossum kidney cells. The cells were incubated with FITC-protamine at 37°C (A, B and C) or 4°C (D, E and F). After being washed, the live cells were observed by confocal laser scanning microscopy. When FITC-protamine was incubated at 37°C, punctate and diffuse fluorescence was observed in the cytoplasm. Furthermore, staining of the nuclear membranes and nuclei was clearly observed. The fluorescence in the nuclei was not spread evenly but concentrated in certain spots on them. In contrast, at 4°C, there was little intracellular accumulation of fluorescence, while clear fluorescence was observed on the plasma membranes. (A, D) FITC-protamine (green), (B, E) Hoechst33342 for nuclear staining (blue), (C, F) merge. See the article by Nagai *et al.* on page 1942 of this issue.