

# Contents of Volume 9

## ISSUE 1

- 1 Ethnomycology: Medicinal and Edible Mushrooms of the Tzeltal Maya of Chiapas, México**  
*Aaron M. Lampman*
- 7 Evaluation of Therapeutic Activity of Hypogeous Ascomycetes and Basidiomycetes from North America**  
*Rita Stanikunaite, James M. Trappe, Shabana I. Khan, and Samir A. Ross*
- 15 Neurotropic and Trophic Action of Lion's Mane Mushroom *Hericium erinaceus* (Bull.: Fr.) Pers. (Aphyllorphomycetideae) Extracts on Nerve Cells in Vitro**  
*Mykhaylo G. Moldavan, Andrii P. Gryganski, Olena V. Kolotushkina, Burkhard Kirchoff, Galina G. Skibo, and Paola Pedarzani*
- 29 Potential Benefits of Ling Zhi or Reishi Mushroom *Ganoderma lucidum* (W. Curt.: Fr.) P. Karst. (Aphyllorphomycetideae) to Breast Cancer Patients**  
*Alice W. Chen and John Seleen*
- 39 Adverse Effects of Mycelia and Culture Broth Extracts from *Bjerkandera adusta* (Willd.: Fr.) P. Karst. and *Hypholoma fasciculare* (Huds.: Fr.) P. Kumm. on Breast and Prostate Cancer Cells**  
*Ben-Zion Zaidman, Anna Lutin, Solomon P. Wasser, Eviatar Nevo, and Jamal A. Mahajna*
- 47 Nonvolatile Taste Components of Fruit Bodies and Mycelia of Shaggy Ink Cap Mushroom *Coprinus comatus* (O.F. Müll.: Fr.) Pers. (Agaricomycetideae)**  
*Shu-Yao Tsai, Hui-Li Tsai, and Jeng-Leun Mau*
- 57 Activity of Aqueous Extracts of Lion's Mane Mushroom *Hericium erinaceus* (Bull.: Fr.) Pers. (Aphyllorphomycetideae) on the Neural Cell Line NG108-15**  
*Kah-Hui Wong, Vikineswary Sabaratnam, Noorlidah Abdullah, Murali Naidu, and Roger Keynes*
- 67 Cultivation of Culinary–Medicinal Lion's Mane Mushroom *Hericium erinaceus* (Bull.: Fr.) Pers. (Aphyllorphomycetideae) on Substrate Containing Sunflower Seed Hulls**  
*Debora Figlas, Ramiro Gonzales Matute, and Néstor Curvetto*
- 75 New Species of Hallucinogenic *Psilocybe* (Fr.) P. Kumm. (Agaricomycetideae) from the Eastern U.S.A.**  
*Gastón Guzmán, Richard V. Gaines, and Florencia Ramírez-Guillén*
- 79 DISCUSSION**  
**Inclusive and Exclusive Concepts of *Agaricus subrufescens* Peck: A Reply to Wasser et al.**  
*Richard W. Kerrigan*
- 85 Molecular Identification of Species of the Genus *Agaricus*. Why Should We Look at Morphology?**  
*Solomon P. Wasser*

**Fourth International Medicinal Mushroom Conference (September, 2007, Slovenia)**

## Contents of Volume 9

### ISSUE 2

- 89** *Grifola frondosa* (Dicks.: Fr.) S.F. Gray (Maitake Mushroom): Medicinal Properties, Active Compounds, and Biotechnological Cultivation  
*Bojana Boh and Marin Berović*
- 109** Immunomodulation and Antitumor Activity of a Mushroom Product, Proflamin, Isolated from *Flammulina velutipes* (W. Curt.: Fr.) Singer (Agaricomycetidae)  
*Hirofumi Maruyama and Tetsuro Ikekawa*
- 123** Immunomodulatory and Antitumor Activities of Water-Soluble Proteoglycan Isolated from the Fruiting Bodies of Culinary–Medicinal Oyster Mushroom *Pleurotus ostreatus* (Jacq.: Fr.) P. Kumm. (Agaricomycetidae)  
*Saurabh Shah, Dipanjan Ghosh, Sanjaya Kumar Mallick, Itisam Sarangi, Sujit Kumar Bhutia, Indranil Banerjee, Swatilekha Maiti, and Tapas K. Maiti*
- 139** Effect of Ling Zhi or Reishi Mushroom *Ganoderma lucidum* (W. Curt.: Fr.) P. Karst. Mycelium on Benzo[a]prene-Induced Early Alterations of the Respiratory Epithelium in the Hypercholesterolaemic Rats  
*Yew Keong Choong, Noordin M. Mustapha, Suhaila Mohamed, Nor Aini B. Umar, and Chow Chin Tong*
- 151** Antioxidant Activity of Submerged Cultured Mycelium Extracts of Higher Basidiomycetes Mushrooms  
*Mikheil D. Asatiani, Vladimir I. Elisashvili, Solomon P. Wasser, Abraham Z. Reznick, and Eviatar Nevo*
- 159** Anti-MRSA and Antifungal Compounds from the Mushroom *Albatrellus dispansus* (Lloyd) Canf. et Gilb. (Aphyllorphomycetidae)  
*Shinji Tokuyama, Madoka Horikawa, Tatsuya Morita, Toshihiro Hashimoto, Dang Ngoc Quang, Yoshinori Asakawa, and Hirokazu Kawagishi*
- 163** Influence of Selected Cultural Factors and Postharvest Storage on Ergothioneine Content of Common Button Mushroom *Agaricus bisporus* (J. Lge) Imbach (Agaricomycetidae)  
*N. Joy Dubost, Robert B. Beelman, and Daniel J. Royse*
- 177** Study of Melanin Complex from Medicinal Mushroom *Phellinus robustus* (P. Karst.) Bourd. et Galz. (Aphyllorphomycetidae)  
*Valentina G. Babitskaya, Nina A. Bisko, Victor V. Shcherba, and Nadezda Yu. Mitropolskaya*

**Fourth International Medicinal Mushroom Conference (September, 2007, Slovenia)**

# Contents of Volume 9

## ISSUES 3 & 4

xvi From the Editor-in-Chief

### PLENARY LECTURES

- 187 **Medicinal Mushrooms: Ancient Traditions, Contemporary Knowledge, and Scientific Enquiries**  
*Solomon P. Wasser*
- 189 **Medicinal Mushrooms as a Good Source of Dietary Supplements for HIV/AIDS Patients**  
*Shu Ting Chang*
- 190 **Ostreolysin, a Lipid Raft-Binding Protein from the Edible Mushroom *Pleurotus ostreatus***  
*Kristina Sepčić*
- 191 **Osmophilic Genus *Wallemia* (Basidiomycota)—A Phylogenetic Maverick and Its Bioactive Compounds**  
*Nina Gunde-Cimerman*
- 192 **Novel Antiviral Activity against Pox, SARS, Bird Flu, West Nile, and Other Viruses from Polypore Mushrooms Indigenous to the Old Growth Forests of the Pacific Northwest of North America**  
*Paul E. Stamets*
- 193 **Production of Intra- and Extracellular Polysaccharides of *Grifola frondosa* by Solid State and Submerged Cultivation**  
*Marin Berovič, Bojana Boh, Branka Wraber, and Franc Pohleven*
- 194 **An Overview of the Traditions on Edible and Medicinal Mushrooms in Mexico**  
*Gastón Guzmán*
- 195 **Medicinal Mushrooms and Drug Discovery: Identification of Potent Inhibitors of Thrombin, of Pancreatic Lipase, and Novel Antibiotic and Antigenotoxic Compounds**  
*Borut Štrukelj, Javor Kac, Damjan Janeš, Jernej Kristl, Aleš Mlinarič, Bojan Doljak, Franc Pohleven, and Samo Kreft*
- 196 **Medicinal Mushrooms—Their History, Present Use, and the Possibility of Becoming Relevant in Germany**  
*Jan I. Lelley*

### SYMPOSIA ORAL PRESENTATIONS

#### *Systematics, Taxonomy, Distribution, Ecology, and Fungal Culture Collections*

- 199 **Molecular Diversity of Natural *Tuber* Species from Slovenia**  
*Tine Grebenc, Maria P. Martin, Andrej Piltaver, Ivan Ratoša, and Hojka Kraigher*
- 200 **Innovation Systems and Cluster Approaches to Exploitation of the Indigenous and Exotic Edible and Medicinal Mushrooms of the Lake Victoria Basin**  
*Deogracious Olila, John D. Kabasa, Leonard Kisovi, Andrew Engola, and Pataleo K. Munishi*
- 201 **Gene Bank of the Cultivable Higher Basidiomycetes Species in the Hungarian Mushroom Industry**  
*József Szarvas, Laszló Bujdosó, Csaba Hajdú, and Melinda Bray*
- 201 **Taxonomy and Molecular Phylogeny within the *Pleurotus eryngii* Species-Complex**  
*Georgios I. Zervakis, Giuseppe Venturella, Maria Bessi, Maria Letizia Gargano, Zhi-Hui Yang, and Yi-Jian Yao*
- 202 **Classification of *Ganoderma* Strains Cultivated in China Using Molecular Methods**  
*Jingsong Zhang, Chuanhong Tang, Chunli Su, Mingjie Chen, Hui Cao, Qi Tan, and Yingjie Pan*
- 203 **Analysis of *Ganoderma* Strains Using AFLP and Microscopic Examination of Spores**  
*Linyong Zheng, Dinghong Jia, Xiaofan Fei, Xia Luo, Jian Zhao, and Zhirong Yang*

## Medicinal Value and Pharmacology of Mushroom Active Compounds

- 204 Antihyperlipidemic Effect of *Pleurotus ostreatus* in HIV: Results of a Pilot Proof-of-Principle Clinical Trial**  
*Donald I. Abrams, Paul Couey, Starley B. Shade, Mary Ellen Kelly, Nnemdi Kamanu-Elias, and Paul E. Stamets*
- 205 Growing Medicinal Mushrooms in Egypt as a New Strategy for Cancer Treatment**  
*Ayman S. Daba, Maha El-Damalawy, Hesham El-anshasy, and William A. Botros*
- 206 Basidiomycetes as a Source of Food, Enzymes, Polysaccharides, Lectins, and Antioxidants**  
*Vladimir I. Elisashvili, Mikheil D. Asatiani, Eva T. Kachlishvili, Natia V. Kenkebashvili, Tamar Sh. Khardziani, Eka M. Metreveli, Nona A. Mikiashvili, George G. Songulashvili, and Nino D. Tsiklauri*
- 207 A Mushroom Mycelia-Soy Extract (GCP) as a Complementary Therapy for Treatment of Prostate Cancer**  
*Robert M. Hackman, Philip C. Mack, Ruth L. Vinall, Rebecca A. Burich, Hajime Fujii, and Ralph W. deVere White*
- 207 Mushroom Preparations in Combined Antitumor Treatment**  
*Siniša Ivanković, Nevenka Hiršl, Ivan Jakopovich, and Mislav Jurin*
- 208 Prebiotics from *Pleurotus ostreatus* and *P. eryngii***  
*Eliska Komarkova, Vladimir Erban, Kateřina Míčková, Andrej Sinitsa, and Jana Čopíková*
- 209 Antioxidative Activities of *Pholiota adiposa* Strains and Detection of MnSOD in Their Extracts**  
*Won Sik Kong, Yong Hyun Cho, Young Bok Yoo, Kab Yeul Jang, Chang Sung Jhune, and Kwang Ho Kim*
- 210 Influence of Structural Features of Mushroom Glucans on IFN- $\gamma$  Synthesis *in Vitro***  
*Maja Kozarski and Leo J.L.D. van Griensven*
- 211 Prevention of Mammary Adenocarcinoma and Skin Papilloma Induced by 7,12-dimethyl benz(a)anthracene by *Ganoderma lucidum* Occurring in South India**  
*Bhaskaran Lakshmi, Sheena Nair, and Kainoor K. Janardhanan*
- 211 Anti-Androgenic Effect of *Ganoderma lucidum***  
*Jie Liu, Kuniyoshi Shimizu, Fumiko Konishi, Shoichiro Kumamoto, and Ryuichiro Kondo*
- 212 Mushroom Substances as Therapeutics for Hormone-Refractory Prostate Cancer**  
*Jamal A. Mahajna, Ben-Zion Zaidman, Sherbel Sussan, Nesly Dotan, Solomon P. Wasser, and Eviatar Nevo*
- 214 Effect of *Agaricus brasiliensis* Extracts on Wound Healing in Rats**  
*Ivana Mirkov, Jasmina Glamočlija, Marina Soković, Lidija Zolotarevski, Dragan Kataranovski, Leo J.L.D. van Griensven, and Milena Kataranovski*
- 215 *Agaricus brasiliensis* Possesses the Ability to Stimulate the Differentiation of Naive T Cells into T-Helper Type 1**  
*Masashi Mizuno and Sachiko Kawakami*
- 216 Bioprospecting for Naturally Occurring Antimicrobial Agents in Mushrooms**  
*Mahendra K. Rai and Alka Karwa*
- 217 Prevention Effect of Bone Loss in Calcium Deficient Ovariectomized Rats by the Ethanol Extract of *Ganoderma lucidum***  
*Kuniyoshi Shimizu, Ichiko Miyamoto, Jie Liu, and Ryuichiro Kondo*
- 218 Anti-Tumor Activities of Medicinal Mushrooms**  
*Yi-Zhen Xie, Qing-Ping Wu, Bing L. Yang, Sen-Zhu Li, Chong Li, Hai-Ping Ma, Zhaoqun Deng, Daniel Y. Lee, Shu-Jie Li, Albert Yee, Jun Guo, and Burton B. Yang*
- 219 The Potential Use of Limulus G Test Assay for the Evaluation of Immunomodulatory Activity of *Ganoderma* Polysaccharides**  
*Xiaotong Yang, Chunfeng Chen, Ke Mi, and Qingyao Yang*
- 220 Antitubercular Activity of Metabolites of Higher Basidiomycetes**  
*Jordan K. Zjawiony, Wentao Jin, Leif Ryvarden, and Scott G. Franzblau*

### **Mushroom Nutraceuticals**

- 222 **Activation Analysis of Some Essential Elements in Three *Pleurotus* Strains Grown on Composted Sawdust of *Triplochiton scleroxylon***  
*Gideon Adotey and John C. Holliday*
- 222 **Nutraceutical Production and Bioactive Properties of *Leucopaxillus giganteus* Mycelium in the Presence of Different Nitrogen Sources**  
*Lillian Barros, Paula Baptista, Leticia M. Estevinho, and Isabel C. F. R. Ferreira*
- 223 **An Evaluation of the Main Bioactive Compounds of Edible Mushrooms as Nutraceuticals**  
*Necla Çağlarırnak*
- 224 **Effects of *Ganoderma lucidum* and Other Herbal Extracts on Beer Sensorial Evaluation**  
*Sasa Despotovic, Ida Leskosek-Cukalovic, Anita Klaus, Viktor Nedovic, Ninoslav Nikicevic, and Miomir Niksic*
- 225 **The Composition of Various Edible Mushroom Species**  
*Hannu Mäkelä, Riikka Linnakoski, Helena Puhakka, Arsi Ikonen, Jouni Ahlholm, Markku Kirsi, and Ari Pappinen*

### **Fungal Physiology, Biochemistry, and Genetics**

- 226 **Antibacterial Activity of Proteinaceous Extracts of Higher Basidiomycetes Mushrooms against Plant Pathogenic Bacteria**  
*Tanja Dreo, Mateja Želko, Jana Skubic, Jože Brzin, and Maja Ravnikar*
- 227 **Antifungal Secondary Metabolites from Fungal Fruiting Bodies**  
*Craig Dunek and Thomas J. Volk*
- 228 **Reactive Oxidants Generating Characteristics of Mushroom Polysaccharides in Human Cell Lines**  
*Leo J.L.D. van Griensven*
- 229 **Innate Immunity Gene Expressions by  $\beta$ -Glucan of *Ganoderma lucidum* through Dectin-1 and Toll-like Receptor**  
*Ha Won Kim, Han Wook Ryu, and Mi Jeong Kim*
- 230 **The Role of Oxizymes in Detection of Very Low Doses of Phenolics by Fungi**  
*Elzbieta Malarczyk*
- 230 **The Influence of Magnetic Fields and IR Laser Light on Mycelial Growth of Higher Fungi**  
*Uroš Puc, Vildana Sulić, Franc Pohleven, and Anton Jeglič*
- 231 **Uniformity of Proteolytic Diversity in Basidiomycetes**  
*Jerica Sabotič, Tatjana Popovič, Jože Brzin, and Janko Kos*
- 232 **A Mushroom Melanin-Glucan Complex Counteracts the Development of Inducible Genome Instability**  
*Olga F. Senyuk*
- 233 **Study on Selenium Accumulation in *Trametes versicolor* Using Instrumental Neutron Activation Analysis**  
*Le Xuan Tham, Nguyen Giang, Nguyen Thi Dieu Hanh, and Bui Quang Trung*
- 234 **The Importance of Arbuscular Mycorrhizal Fungi in Heavy Metal Pollution in Soils of the Upper Mezica Valley**  
*Katarina Vogel-Mikuš, Paula Pongrac, Primož Pahor, Nives Kugonič, and Marjana Regvar*
- 235 **Synthesis and Secretion of Endoglucanase in the Edible Mushroom, *Volvariella volvacea***  
*Zengtao Xing, Fang Fang Sun, Yingjie Pan, Shaojun Ding, Liwen Jiang, and John A. Buswell*
- 236 **Use of *Trametes versicolor* in Control of Aflatoxins Produced by *Aspergillus parasiticus***  
*Slaven Zjalic, Anna Adele Fabbri, Massimo Reverberi, Alessandra Ricelli, Federico Punelli, and Corrado Fanelli*

### **Mycotechnology and Mushroom Cultivation**

- 238 **Exploitation and Utilization of Wild Fujian *Ganoderma duropora* (Sect. *Phaeonema*) Resource**  
*Ti-qiang Chen, Li-yi Zhong, Jin-zhong Wu, Ye Li, Xing-sheng Lin, Pei-gen Zhu, Jie Xu, and Fu-ping Qiu*
- 238 **Artificial Cultivation of *Wolfiporia cocos***  
*Phil Cleaver*

- 239 **Scaling up of *Schizophyllum commune* Exopolysaccharides: From Shake Flask to Bench Top Bioreactor**  
*Ayman S. Daba, S. N. Rajagopal, Bernadette M. Taylor, Jonathan M. Palmer, and Thomas J. Volk*
- 240 **Production of Xylanase by *Flammulina velutipes* Grown on Different Carbon Sources**  
*Muhammed Umar Dahot and Altaf Ahmed Simair*
- 240 **Cultivation of *Pleurotus ostreatus* on Substrates with Grains from Brewery Waste**  
*Andrej Gregori, Bojan Pahor, Roman Glaser, and Franc Pohleven*
- 241 **Worldwide Green Mold Disease of the Oyster Mushroom (*Pleurotus ostreatus*) is Caused by Two New Species of *Trichoderma*, *T. fulvidum* and *T. pleurotophilum***  
*Lóránt Hatvani, Zsuzsanna Antal, László Manczinger, Irina S. Druzhinina, Christian P. Kubicek, András Szekeres, Csaba Vágvölgyi, and László Kredics*
- 242 **Lignin, Cellulose, and Hemicellulose Degrading Enzyme Production by Selected Polypores Grown on Wheat Straw**  
*Omoanghe S. Isikhuemhen, Nona A. Mikiashvili, and Ashton Gooding*
- 243 **Optimum of Submerged Fermentation Parameters for *Antrodia camphorata***  
*Wei Jia and Hua Liu*
- 244 **Characteristics of Cultural Conditions on *Phellinus* spp. and Their Artificial Cultivated Fruiting Bodies**  
*Woo-Sik Jo, Young-Hyun Rew, Sung-Guk Choi, Seung-Chun Park, Geon-Sik Seo, and Jae-Youl Uhm*
- 245 **Influence of Some Mineral Rows on the Growth of Mycelia of Some Medical Mushrooms**  
*Anita Klaus, Mirko Grubisic, and Miomir Niksic*
- 246 **The SCFA-Production after *in Vitro* Fermentation of Various Grains and Mushroom Materials**  
*Hannu Mäkelä, Isa Kivelä, Arsi Ikonen, Kaisu Riihinen, Jouni Ahlholm, Ari Pappinen, and Atte von Wright*
- 247 **Effects of Environmental Factors on Bacterial Disease in *Pleurotus ostreatus* Cultivation**  
*Se Jong Oh, Young Bok Yoo, Kab Yeul Chang, Chang Sung Jhune, and Jong Chun Jung*
- 248 **Mycotechnology for Optimal Recycling of Winery and Vine Wastes**  
*Marian Petre, Carmen Bejan, Emilia Visoiu, Ion Tita, and Aurelian Olteanu*
- 249 **Mushrooms: Production Prospects and Commercialization**  
*Rahul Salgaonkar, Pravin Jajoo, Alka Karwa, and Mahendra K. Rai*
- 250 **Enzyme Activities and Growth Rates of *Grifola frondosa* Mycelia on Substrates Composed of Wheat Bran, Wasted Brewery Grains, and Beech Sawdust**  
*Mirjan Švagelj, Andrej Gregori, Bojan Pahor, Marin Berovič, and Franc Pohleven*
- 251 **Experiments on *Hericium erinaceus* Cultivation in Hungary**  
*József Szarvas, Melinda Bray, Csaba Hajdú, and András Misz*
- 251 **Effect of Temperature Regime during Incubation on Yield and Fruit Body Quality in Intensive Cultivation of *Lentinus edodes***  
*Lena Vasylenko, Michael H. Böhme, Burkhard Kirchhoff, and Andrej Griganskii*
- 252 **Genetic Diversity and Self-Fertility for Breeding *Pleurotus ostreatus***  
*Young Bok Yoo, In Yeup Kim, Ki Wook Kwon, Won Sik Kong, Kab Yeul Jang, Se Jong Oh, and Chang Sung Jhune*

#### **Mycoremediation**

- 254 **Bioremediation of Waste Copper/Chromium Treated Wood Using Wood Decay Fungi**  
*Miha Humar, Franc Pohleven, and Samuel A. Amartey*
- 255 **Degradation of Dioxin and PCB by White-Rot Fungus *Phlebia brevispora***  
*Ichiro Kamei and Ryuichiro Kondo*
- 256 **Biodegradation Study of Polycyclic Aromatic Hydrocarbons (PAHs) and Polychlorinated Phenols (PCPs) by *Hypoxylon fragifome* and *Coniophora puteana***  
*Mustafa Memić, Margareta Vrtačnik, Bojana Boh, and Franc Pohleven*
- 257 **The Mycoremediation of the Degraded Surfaces by *Pleurotus ostreatus***  
*Barbara Piškur, Dušan Jurc, Robert Robek, Hojka Kraigher, and Franc Pohleven*

- 258 Fungal Biodegradation of Plastics and Soil Pollutants**  
*Václav Šašek, Čeněk Novotný, Jiří Vitásek, Irena Prokopová, Jiří Brožek, and Josef Náhlík*
- 259 Treatment of C.I. Reactive Orange 16 with the White Rot Fungus *Irpex lacteus*—Degradation Intermediates and Their Effect on Fungal Enzymes**  
*Kateřina Svobodová, Marion Senholdt, and Astrid Rehorek*

***Ethnomycology, Folk Medicine, and Homeopathy***

- 261 Some Data from the Ethnomycology of Pre-Slavonic and Slavonic Tribes on Polish Territory**  
*Krzysztof Grzywnowicz*
- 262 Medicinal Mushrooms of the Melghat Forest and Their Biotechnological Potential**  
*Alka Karva and Mahendra K. Rai*
- 262 Indigenous Knowledge on Edible, Poisonous, and Medicinal Macrofungi in Botswana**  
*Elenimo B. Khonga and Khola K. Mogotsi*
- 263 *Phallus impudicus*: From Folk Medicine to Supportive Cancer Care**  
*Sergejs Kuznecovs, Klara Jegina, Galina Kuznecova, and Ivans Kuznecovs*
- 264 How Mushrooms Can Help Save the World**  
*Paul E. Stamets*
- 265 Fungal Diseases of Humans: The Dark Side of Mycology**  
*Thomas J. Volk and Craig Dunek*

**POSTER PRESENTATIONS**

- 269 Comparison of Growth of Selected Wood Decay Fungi on Various Agar-Supplemented Media**  
*Samuel A. Amartey, Miha Humar, and Franc Pohleven*
- 270 Biosorption of Heavy Metals in the Ectomycorrhizal Fungus *Tuber borchii*: A Preliminary Molecular Approach**  
*Antonella Amicucci, Emanuela Polidori, Roberta Saltarelli, Paola Ceccaroli, Alessandra Zambonelli, Emanuela Cerigini, and Vilberto Stocchi*
- 271 Antioxidant and Free-Radical Scavenging Activity of Higher Basidiomycetes in Submerged Cultivation**  
*Mikheil D. Asatiani, Lital Sharvit, Vladimir I. Elisashvili, Solomon P. Wasser, Abraham Z. Reznick, and Eviatar Nevo*
- 272 Isolation, Characterization, and Cloning of CnSPI, a Serine Protease Inhibitor from *Clitocybe nebularis***  
*Petra Avanzo, Sabina Anžlovar, Tatjana Popovič, Janko Kos, and Jože Brzin*
- 273 Production and Antitumor Properties of Fruit Body Substances and Submerged Mycelium of *Ganoderma lucidum***  
*Anastasia V. Avtonomova, Igor V. Belitskii, Elena B. Isakova, Maria S. Evsenko, Anatolii I. Usov, Vladimir M. Buchman, and Larissa M. Krasnopolskaya*
- 274 The Influence of Different Factors on the Polysaccharide Accumulation of *Ganoderma lucidum***  
*Valentina G. Babitskaya, Nina A. Bisko, Natalia L. Poedinok, and Tatjana A. Puchkova*
- 275 Perspectives in the Usage of Bioactive Substances of Medicinal Mushrooms in Pharmaceutical and Cosmetic Industries**  
*Suzanna M. Badalyan, Narine G. Gharibyan, and Aschen E. Kocharyan*
- 276 Biological Characteristics and Genetic Diversity of Several Basidiomycetes Medicinal Mushrooms**  
*Suzanna M. Badalyan, Narine G. Gharibyan, Carmen Z. Sakeyan, Hrachuhi K. Avetisyan, Margarita O. Grigoryan, Monica Navarro-González, and Ursula Kües*
- 277 A Study of the Mitogenic Effect of Cultural Broth of Several Medicinal Mushrooms (Aphyllorphoromycetideae)**  
*Suzanna M. Badalyan and Carmen Z. Sakeyan*
- 278 Medicinal Operculate Discomycetes of Israeli Mycobiota**  
*Gayane S. Barseghyan, Solomon P. Wasser, and Eviatar Nevo*

- 279 **L-Ergothioneine, a Potent Antioxidant in Cultivated Mushrooms: A Review**  
*Robert B. Beelman, N. Joy Dubost, and Marvin Hausman*
- 280 **Aegerolysins: Structure, Function, and Putative Biological Role**  
*Sabina Berne, Peter Maček, and Kristina Sepčić*
- 280 **Ostreolysin Induces Growth Promotion in *Pleurotus ostreatus***  
*Sabina Berne, Jure Pohleven, Iztok Vidic, Franc Pohleven, Tom Turk, Peter Maček, and Kristina Sepčić*
- 281 **Solid State Cultivation of *Grifola frondosa* Biomass and Production of Intra- and Extracellular Polysaccharides**  
*Marin Berovič, Bojana Boh, Anja Menard, and Franc Pohleven*
- 282 **Production of Intra- and Extracellular Polysaccharides of *Grifola frondosa* Biomass by Submerged Cultivation**  
*Marin Berovič, Bojana Boh, and Jerica Stanisa*
- 283 **The Chemical Composition of the Fruiting Bodies of Selected *Lentinus edodes* Strains**  
*Nina A. Bisko, Valentina I. Fomina, Nadezda Yu. Mitropolskaya, and Victor T. Bilay*
- 284 **Mushrooms Cultivation with the Aim at Developing and Maintaining Psycho-Physical Abilities of Mentally Disabled People**  
*Irena Borštnik*
- 285 **Insecticidal Proteins from the Mushroom *Clitocybe nebularis***  
*Jože Brzin, Lara Kandič, Jerica Sabotič, Borut Štrukelj, Janko Kos, and Spela Schrader*
- 285 **Screening of Medicinal and Culinary Mushrooms in Pure Culture**  
*Asya S. Buchalo, Natalya L. Poyedinok, Oksana B. Mykchaylova, and Margarita L. Lomberg*
- 287 **Identification of a Novel Lectin from the Ascomycetes Fungus *Tuber borchii***  
*Emanuela Cerigini, Francesco Palma, Michele Buffalini, Antonella Amicucci, Paola Ceccaroli, Roberta Saltarelli, and Vilberto Stocchi*
- 288 **Production of Fruit Bodies and Enzymatic Activities of *Agaricus bisporus* on Supplemented Compost**  
*Oscar Arce Cervantes, Hermilo Leal Lara, Francisco Cruz Sosa, Rebeca Ramírez Carrillo, and Octavio Loera Corral*
- 289 **Evidence-Based Potential Benefits of *Ganoderma lucidum***  
*Alice W. Chen, John Seleen, and Glen Babcock*
- 290 **Anticancer Activities of Wild and Cultivated Edible Danish Mushrooms**  
*Ming Chen, Lin Zhai, Henning Knudsen, Henrik Hoff-Hansen, and Arsalan Kharazmi*
- 291 **Study on the Differentially Expressed Genes in Mice Poisoned by  $\alpha$ -Amanitin and Screening the Antergic Materials of Its Toxicity**  
*Qian Chen, Mei Cao, Qun Sun, Jie Zhang, Wen-liang Xiang, Ruo-tong Hou, Zhi-rong Yang, and Jian Zhao*
- 292 **Exploitation and Utilization of Wild Fujian *Ganoderma sinense* (Sect. *Phaeonema*) Resource**  
*Ti-qiang Chen, Liyi Zhong, Jinzhong Wu, Ye Li, Xingsheng Lin, Peigen Zhu, Jie Xu, and Fuping Qiu*
- 293 **Edible and Medicinal Fungi in Northeast China**  
*Yu-Cheng Dai and Bau Tolgor*
- 294 **Biomedical Potential of Some Cultures of Basidial Macromycetes**  
*Nina P. Denisova and Mark M. Shamtsyan*
- 295 **Cost-Effective Sustainable Cultivation of Some Edible Mushrooms and Assessment of Their Nutritional Values and Immunostimulatory Properties**  
*Sikha Dutta and Narayan Chandra Chatterjee*
- 296 **Quantification of the Bioactive Compound Eritadenine in *Lentinus edodes***  
*Josefine Enman, Ulrika Rova, and Kris A. Berglund*
- 297 ***Pleurotus ostreatus* as a Potential Source of Probiotics**  
*Vladimir Erban, Eliska Komarkova, Oldrich Benada, Andrej Sinitza, and Jana Čopíková*
- 298 **Extracellular Biosynthesis of Silver Nanoparticles by *Pleurotus* Species**  
*Aniket Gade, Mahendra K. Rai, Alka Karwa, Prashant Bonde, and Avinash Ingle*



- 299 **Expression Profile of Extracellular Proteins of *Phanerochaete chrysosporium* RP78 during Biodegradation of Azo Dyes**  
*Fahimeh Ghasemi and Fatemeh Tabandeh*
- 300 **Effect of Oregano Essential Oil on Infection of *Agaricus bisporus* by *Mycogone perniciosa* in Vitro and in the Mushroom Growing Unit**  
*Jasmina Glamočlija, Marina Soković, Jelena Vukojević, Ivanka Milenković, Vele Tešević, and Leo J.L.D. van Griensven*
- 301 **Membrane Activity of Ostreolysin, a Cytolytic Protein from the *Pleurotus ostreatus*, Is Inhibited by Lysophospholipids**  
*Dejan Gmajner, Katja Rebolj, Peter Maček, and Kristina Sepčić*
- 302 **Two Control Strategies of Oxalate Concentration in White-Rot Fungi: *Bjerkandera fumosa* and *Abortiporus biennis***  
*Marcin Grąz*
- 302 **Potential Use of Agricultural By-Products for Medicinal Mushroom Cultivation**  
*Andrej Gregori, Bojan Pahor, Roman Glaser, and Franc Pohleven*
- 304 **Spread of the *Fomitopsis officinalis* Inoculated in Stems of Living Larch in Slovenia**  
*Andrej Gregori, Barbara Piškur, Marija Gregori, and Dušan Jurc*
- 305 **Enzyme Activities and Growth Rate of *Pleurotus ostreatus* Mycelium on Substrates Composed of Wheat Bran, Wasted Brewery Grains, and Beech Sawdust**  
*Andrej Gregori, Mirjan Švagelj, Bojan Pahor, Marin Berovič, and Franc Pohleven*
- 306 **Effect of *Hericium erinaceus* Extracts on Physiological Functions, Growth, and Development of Nerve and Glial Cells, and Myelination of Nerve Fibers**  
*Andrii P. Gryganski, Mykhaylo G. Moldavan, Olena V. Kolotushkina, Burkhard Kirchhoff, Galina G. Skibo, and Paola Pedarzani*
- 307 **Natural Inhibitors of Asparagine Proteases from Mushrooms as Bioactive Metabolites of Potential Medicinal Value**  
*Krzysztof Grzywnowicz, Krzysztof Sobczyk, Katarzyna Socala, and Magdalena Jaszek*
- 308 **Contribution of Dectin-1 on Immunomodulating Activity of Soluble Beta-Glucan SCG from *Sparassis crispa* in Mice**  
*Toshie Harada, Hiromi Kawaminami, Noriko N. Miura, Yoshiyuki Adachi, Mitsuhiro Nakajima, Toshiro Yadomae, and Naohito Ohno*
- 308 **Contribution to Understanding the Biodegradation Mechanism of Wood Sterilized by Gamma Radiation**  
*Marin Hasan, Radovan Despot, Miha Humar, Franc Pohleven, and Gregor Rep*
- 309 **A PCR-Based Test for the Rapid Detection of *Trichoderma pleurotophilum* and *T. fulvidum*, the Causative Agents of the Newly Emerged Worldwide Green Mold Disease of *Pleurotus ostreatus***  
*Lóránt Hatvani, Sándor Kocsubé, László Manczinger, Irina S. Druzhinina, Christian P. Kubicek, Csaba Vágvölgyi, and László Kredics*
- 310 **Mushroom-Derived Supplements for the Control of HIV and Type 2 Diabetes**  
*John C. Holliday*
- 311 **PCR-RFLP Database: Its Application in Ectomycorrhizal Identification and Assessment of Fungal Molecular Diversity**  
*Melita Hrenko, Barbara Štupar, Tine Grebenc, and Hojka Kraigher*
- 312 **Reactivity of Anti-Beta-Glucan Antibody in Sera to Edible Mushrooms**  
*Ken-Ichi Ishibashi, Mayu Morita, Masuro Motoi, Noriko N. Miura, Yoshiyuki Adachi, and Naohito Ohno*
- 313 **Preliminary Studies on Fruit Body and Lignocellulolytic Enzyme Production by *Pleurotus ostreatus* on Solid Waste from Anaerobic Digestion of Poultry Litter**  
*Omoanghe S. Isikhuemhen, Nona A. Mikiashvili, and Jonathon M. Chatfield*
- 314 **Pelletized Plant Waste—A Perspective Source of Substrate for Growing Wood-Inhabiting Cultivated and Medicinal Mushrooms**  
*Ivan Jablonský, Zdeněk Blažek, and Václav Šašek*

- 315 **Treating Human Cancers with Medicinal Mushroom Preparations (Croatian Experience)**  
*Ivan Jakopovich*
- 316 **Major Diseases and Pests on Mushroom Beds in Korea**  
*Chang Sung Jhune, Won Sik Kong, Young Bok Yoo, Jong Cheon Jung, and Se Chul Chun*
- 317 ***In Vitro* Study of Neuroprotective Activity of Extracts Isolated from *Piptoporus betulinus***  
*Józef Kaczor, Agata Mitura, Wojciech Brzana, Małgorzata Juszcak, Martyna Kandefer-Szerszeń, and Wojciech Rzeski*
- 317 **Genetic Variations in *Pleurotus* Species Collected from Central India**  
*Rupali Katekar, Alka Karwa, and Mahendra K. Rai*
- 318 **Osteoclast-Forming Suppressing Substances from the Mushroom *Agrocybe chaxingu***  
*Hirokazu Kawagishi, Takuto Akachi, Akihiro Ogawa, Kikuko Masuda, Kohji Yamaguchi, and Kazunaga Yazawa*
- 319 **The Current Status of the "Culture Collection of Wild Mushroom Species" in Korea**  
*Sang Beom Kim, Gun Woo Lee, Hyun Su Rho, Hyun Sook Lee, Shim Mi Ja, Hye Young Kim, Seong Hwan Kim, Kyung Rim Lee, U Youn Lee, Min Woong Lee, and Tae Soo Lee*
- 320 **Inhibitory Effect of Mouse Sarcoma 180 by Crude  $\beta$ -D-Glucan Extracted from the Fruiting Body of *Lentinus giganteus***  
*Sang Beom Kim, Gun Woo Lee, Mi Ja Shim, Hyun-Su Rho, Hyun Sook Lee, Min Woong Lee, U-Youn Lee, and Tae Soo Lee*
- 320 **Medicinal Agaricales s.l. of Israeli Mycobiota**  
*Annush Kosakyan and Eviatar Nevo*
- 321 **Design of Effective Submerged Cultivation Methods for Xylotrophic Medicinal and Culinary-Medicinal Basidial Mushrooms**  
*Larissa M. Krasnopolskaya, Maria I. Leontieva, Anastasia V. Avtonomova, Igor V. Belitskii, Elena B. Isakova, and Vladimir M. Buchman*
- 322 **The Effect of Initial pH on Biomass Production of *Ganoderma applanatum* and *G. lucidum* Strains**  
*Tatyana A. Krupodorova*
- 323 ***In Vitro* Formation of *Cordyceps bassiana* Fruiting Bodies from the *Beauveria bassiana* Isolate**  
*Je-O Lee, Bhushan Shrestha, Sang-Kuk Han, Won-Ho Lee, Beom-Suk Kim, and Jae-Mo Sung*
- 324 **Factors Influencing the Production of Water-Soluble Endopolysaccharide and Exopolysaccharide from *Lentinus lepideus* and Their Effects on Immune Cytokine Production**  
*Wi Young Lee, Jin Kwon Ahn, and Kang Hyeon Ka*
- 325 **Submerged Cultivation and Antitumor Activity of *Hypsizygus ulmarius***  
*Maria I. Leontieva, Anastasia V. Avtonomova, Igor V. Belitskii, Elena B. Isakova, Anatolii I. Usov, Vladimir M. Buchman, and Larissa M. Krasnopolskaya*
- 326 **Effect of Boron Compounds on Growth and Decay Abilities of Wood Decay Fungi**  
*Boštjan Lesar, Andreja Žagar, Boštjan Podlesnik, Jerneja Modic, Franc Pohleven, and Miha Humar*
- 326 **Research on the *in Vitro* Growth Inhibition Effect of *Inonotus obliquus* on Bacteria**  
*Xue Li, Yang Lin, and Qi Wang*
- 327 **Inoculated Goat Willow (*Salix caprea*) Cuttings as a Model Plant Species for Phytostabilization at a Heavy Metal Polluted Site in Žerjav**  
*Matevž Likar and Marjana Regvar*
- 328 **Effects of Red Pepper as a Substrate Additive on the Growth and Metabolic Activity of *Pleurotus ostreatus***  
*Jong-Hyun Lim, Min-Jin Song, Kyung-Yun Kim, Eun-Suk Son, Joong-Ho Joh, Young-Sub Cho, and Chang-Soo Lee*
- 329 **The Study on *in Vitro* Bacteriostasis Testing of Puffballs' *Hyphostroma***  
*Yang Lin, Qi Wang, Xue Li, and Huocai Zhang*
- 330 **Antioxidative and Antibacterial Activity of Some Lignicolous Basidiomycetous Fungi from Serbia**  
*Karaman A. Maja, Mimica-Dukic M. Neda, Petar N. Knežević, and Matavulj N. Milan*
- 331 **Changes in Electrophoretic Patterns of Laccase and HR-Peroxidase Fungal Isozymes in the Presence of Very Low Doses of Phenol**  
*Elzbieta Malarczyk, Grzegorz Nowak, and Janina Kochmanska-Rdest*

- 332 Application of the RAPD Method for the Identification of *Lentinus edodes* Strains**  
Natalya Matjushkova, Uldis Malinovskis, Indra Petrauska, and Nina A. Bisko
- 332 Extraction of Polysaccharides from Selected Malaysian Mushroom Species: Yield and Antioxidant Properties**  
Shaiful Azuar Mohamad, Mat Rasol Awang, and Tengku Ahbrizal Farizal Tengku Ahmad
- 333 Immunomodulating Activity of *Agaricus brasiliensis* KA21 in Human Volunteers**  
Masuro Motoi, Ying Liu, Yasushi Fukuwatari, Ko Okumura, Kazuyoshi Takeda, Ken-ichi Ishibashi, Naohito Ohno, Kazu Mori, and Ming Gao
- 334 Slovenian Fungal Database: Boletus Informaticus**  
Nikica Ogris, Andrej Piltaver, and Dušan Jurc
- 335 Cultivation and Determination of the Bromatological and Chemical Composition of the Colombian Wild Fungus, *Pleurotus cornucopiae***  
Oscar Eliseo Mejía Orozco, José Henry Toro López, Héctor Jairo Osorio Zuluaga, Augusto Rivera Umaña, Maryeimi Varón López, and Susana Hernández Niño
- 336 Development of New Antithrombotic Substance from Mushrooms**  
Jeong Sik Park, Won Sik Kong, Kab Yeul Jang, Chang-Hyun You, and Jong Soo Lee
- 337 Comparison of the *Pleurotus ostreatus* Growth Rates on Beech and Aspen Stumps**  
Martin Pavlík
- 337 Some Medicinal and Other Cultivated Mushrooms in Thailand**  
Ahchara Payapanon, Leka Manoch, Satit Thaitatkul, Pramote Thaitatkul, Boonchok Thaitatkul, Onuma Jeamjitt, and Tida Dethoup
- 338 Inhibitory Effects of *Marasmius oreades* Extract Fractions on NF- $\kappa$ B Activation Pathway**  
Roumyana D. Petrova, Nili Ruimi, Sherbel Sussan, Solomon P. Wasser, Eviatar Nevo, Abraham Z. Reznick, and Jamal A. Mahajna
- 339 Recent Advances in the Applied Research, Human Health-Related Properties, and Commercial Cultivation of Selected Medicinal Mushrooms Grown in Greece**  
Antonios Philippoussis, George Zervakis, Panagiota Diamantopoulou, Panagiotis Katsaris, Demetrios Kletsas, Eleftherios Lahouvaris, Athanasios Mastrogiannis, and Cleathes Israilides
- 340 Antiproliferative and Adhesion Effects of Lectins from Mushroom *Clitocybe nebularis* on Human Cancer Cell Lines**  
Jure Pohleven, Nataša Obermajer, Bogdan Kralj, Janko Kos, Borut Štrukelj, Jože Brzin
- 341 Lipid Profile and Effect of *Agaricus bisporus* as Protective Factors in Experimental Hypercholesterolemia**  
Goundappan K. Poongodi
- 342 The Activity of Certain Medicinal Mushrooms after Light Influences**  
Natalya L. Poyedinok, Asya S. Buchalo, Oksana B. Mykchaylova, and Anatolij M. Negriyko
- 343 A Newly Recorded *Amauroderma subresinosum* from National Park of Cat Tien, Vietnam**  
Dang Ngoc Quang, Le Xuan Tham, Le Thi Hoang Yen, and Duong Van Hop
- 345 Anti-Insect Activity of *Ganoderma lucidum* Extract Against *Tribolium castaneum***  
Hossein Riahi and Fatema Sargazi
- 345 Production of Cytokines and Cytotoxic Mediators by Peritoneal Macrophages in Mice on a *Ganoderma lucidum* Supplemented Diet**  
Rosália Rubel, Herta Sutz Dalla Santa, Sergio Ricardo Bello, Sandro Bonatto, Luiz Cláudio Fernandes, Raffaello Di Bernardi, Juliana Gern, Adenise L. Woiciehoski, Fan Leifa, and Carlos Ricardo Soccol
- 347 Immunological Profile in Mice Fed on a *Ganoderma lucidum* Supplemented Diet**  
Rosália Rubel, Herta Sutz Dalla Santa, Raffaello Di Bernardi, Juliana Gern, Kamille S. Pereira, Andressa Bisol, Luciana P. S. Vandenberghe, Fan Leifa, and Carlos Ricardo Soccol
- 348 Molecular and Biochemical Characterization of a New Italian *Ganoderma lucidum* Strain**  
Roberta Saltarelli, Paola Ceccaroli, Mirco Iotti, Alessandra Zambonelli, Michele Buffalini, Lucia Casadei, Luciana Vallorani, and Vilberto Stocchi
- 349 Strain Improvement of *Agaricus bisporus* through Protoplast Fusion**  
Sardul Singh Sandhu, Inder Singh Rana, and Mahendra K. Rai

- 350** *Agaricus brasiliensis* Promote Alteration in the Cytotoxic Mediators by Peritoneal Macrophages *in Vitro*  
Herta Sutz Dalla Santa, Rosália Rubel, Luiz Cláudio Fernandes, Sandro Bonatto, Sergio Ricardo Bello, Raffaello Di Bernardi, Kamille S. Pereira, Juliana Gern, Luciana P. S. Vandenberghe, Adenise L. Woiciechoski, Fan Leifa, and Carlos Ricardo Soccol
- 351** Development of Natural Multifunctional Cosmetic Ingredients Using a Biotechnological Approach  
Madhuri Shamanna, Tajalli Keshavarz, and Danka Tamburic
- 352** Effect of Cultural Conditions on Mycelial Growth and Fruiting of *Agrocybe aegerita*  
Elvira F. Solomko and Margarita L. Lomborg
- 353** Ingestion of *Agaricus bisporus* Lowers Blood Triglyceride and Total and Low-Density Lipoprotein Cholesterol Levels in Hyperlipidemic Rats  
Chi-Hyun Song, Byung-Keun Yang, Sang-Chul Jeong, Yip Cho, Sundar Rao Koyyalamudi, Gerald Pang, and Percy Wong
- 354** Higher Basidiomycetes Laccase and Manganese Peroxidase Activity in Submerged Fermentation of Food Industry Wastes  
George G. Songulashvili, Vladimir I. Elisashvili, Eviatar Nevo, and Yitzhak Hadar
- 355** Effect of Different Nitrogen Sources and Concentrations, and Medium pH on the Production of Laccase and Mn-Oxidizing Peroxidases by *Ganoderma lucidum*  
Mirjana Stajić, Jelena Vukojević, and Sonja Duletić-Laušević
- 356** Effect of Ostreolysin on Cell-Sized Lipid Vesicles  
Vid Šuštar, Janja Majhenc, Kristina Sepčić, Sasa Svetina, and Peter Maček
- 357** Biologically Active Polysaccharides of *Agaricus brasiliensis*: Isolation and Structural Characterization  
Andriy Synytsya, Petra Blafková, Kateřina Míčková, Ivan Jablonský, Jiří Spěváček, and Jana Čopíková
- 358** Two Forms of Tropical Red Lingzhi *Ganoderma tropicum* Newly Recorded from South Vietnam: A Precious Source of Materia Medica  
Le Xuan Tham, Le Thi Hoang Yen, Duong Van Hop, Dang Ngoc Quang, Bui Quang Trung, and Le Tien Son
- 359** Secondary Metabolites from Submerged Cultures of Higher Basidiomycetes and Their Effect on the Growth of Ovarian Cancer Cells  
Amal Toubi (Rouhana), Solomon P. Wasser, and Fuad Fares
- 360** Medicinal Aphyllophorales Mushrooms of Israeli Mycobiota  
Daniel Tura and Eviatar Nevo
- 361** Liquid Medium Selection for Fungal Biodegradation of Lindane and Sodium Pentachlorophenolate  
Iztok Vidic, Kristina Sepčić, and Franc Pohleven
- 363** Investigation of the Effect of the *Cordyceps militaris* Extract on Human and Canine Mammary Tumor Cell Apoptosis  
Yu-Chern Wei, Yu-Shen Lai, Su-Der Chen, and Yeong-Hsiang Cheng
- 363** Fas Upregulation is Involved in *Trametes versicolor* Polysaccharopeptide-Induced Apoptosis in Leukemic Molt-4 Cells  
Xiaotong Yang, Mei Li Li, Huiqing Feng, Ke Mi, and Qingyao Yang
- 364** Isolation, Purification, Structural Elucidation, and Anti-Tumor Activity of PIP60-1, a Polysaccharide from Fruit Bodies of *Phellinus igniarius*  
Yan Yang, Jingsong Zhang, Qingjiu Tang, Yanfang Liu, and Wei Jia
- 365** Study on Germplasm Characteristics of *Pleurotus nebrodensis* in China  
Jinxia Zhang and Chenyang Huang
- 366** Modulation of Neutrophilic Inflammation *in Vivo* by *Coprinus comatus* Proteoglucans  
Jelena Živanović, Marina Soković, Jasmina Glamočlija, Srđja Drakulić, Leo J.L.D. van Griensven, and Milena Kataranovski
- 367** To Reveal Natural Groups within the Genus of the Medicinal Fungi *Trametes* (Polyporales, Basidiomycota)  
Ivan V. Zmitrovich and Wjacheslav A. Spirin

- 368 Mechanisms of Toxicity of Ostreolysin, a Cytolytic Protein from the *Pleurotus ostreatus*, in Rodents**  
*Monika C. Žužek, Katja Rebolj, Urska Batista, Kristina Sepčić, Peter Maček, Vojteh Cestnik, and Robert Frangež*

**FULL TEXT ARTICLES**

- 373 Cultivation of Three *Pleurotus* (Jacq.: Fr.) P. Kumm. Species on Pasteurized Elephant Grass (*Pennisetum purpureum*) Substrate**  
*Eduardo Bernardi, Lorena Pastorini Donini, Elisandra Minotto, and José Soares do Nascimento*
- 379 Analysis of Element Contents in Selected Medicinal *Phellinus* Qué. (Aphyllorphomycetideae) Species from India**  
*Prasad Y. Lamrood and Rahul R. Mungikar*
- 385 Mycelial Growth of Three *Pleurotus* (Jacq.: Fr.) P. Kumm. Species on Sugarcane Bagasse: Production of Hydrolytic and Oxidative Enzymes**  
*Gerardo Mata, Erika González Cortés, and Dulce Salmones*

**395 Contents of Volume 9**

**409 Indices to Volume 9**