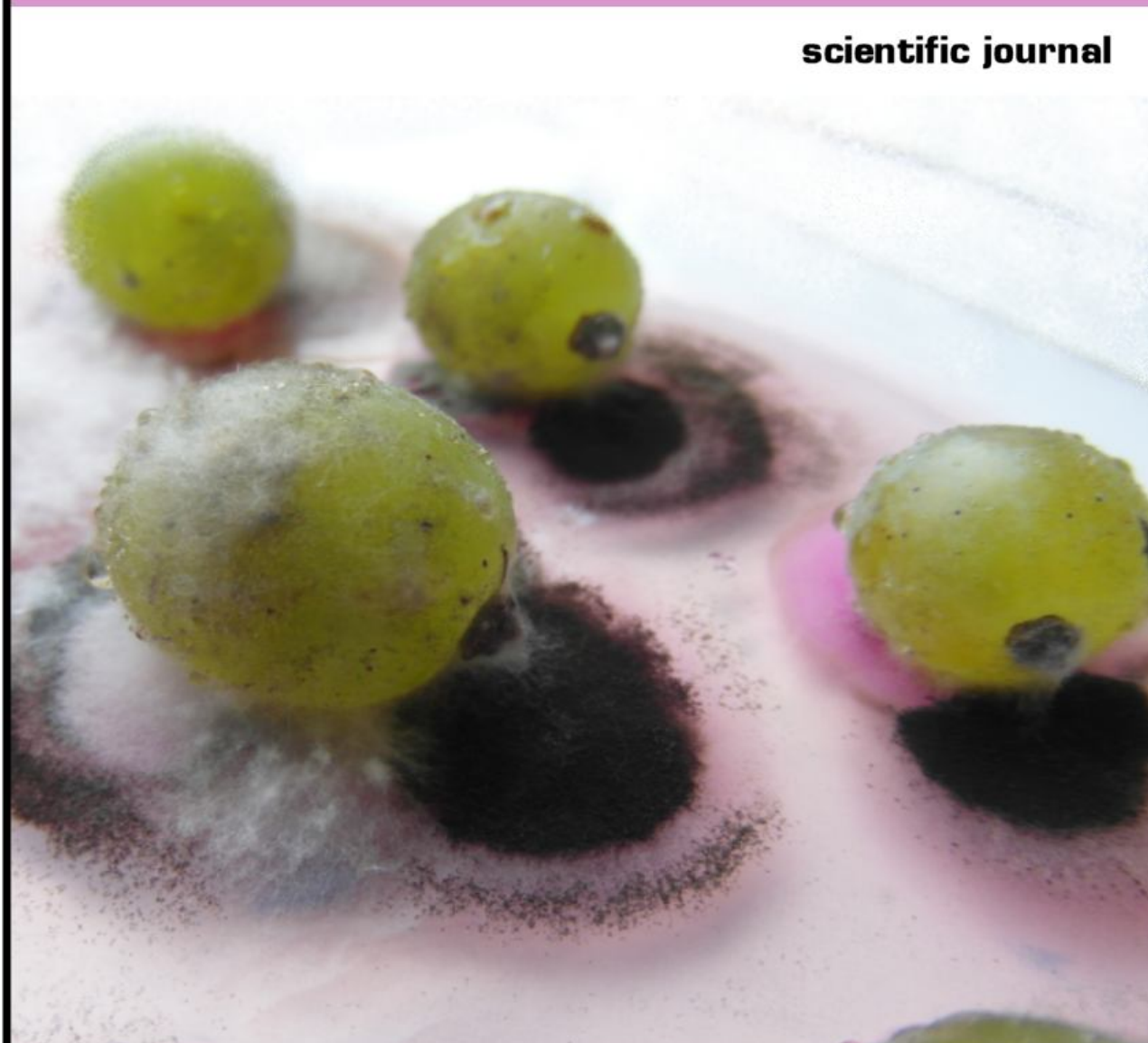


Journal of Microbiology, Biotechnology and Food Sciences

scientific journal



February - March 2014, vol. 3, no. 4



Published by:
Faculty of biotechnology and food sciences
Nitra, Slovakia



Journal of Microbiology, Biotechnology and Food Sciences (JMBFS)

Peer-reviewed scientific journal

ISSN 1338-5178

The Journal of Microbiology, Biotechnology and Food Sciences is a scientific journal for publishing of scientific articles from microbiology including bacteria, fungi, yeasts, algae, protozoa and viruses Microbial, animal and plants biotechnology physiology, modern biotechnologies, genetics, molecular biology, agriculture and food chemistry, food control, evaluation and processing of food, food biochemistry and environmental science of agriculture.

The Journal of Microbiology, Biotechnology and Food Sciences is published 6 times per year in electronic version.

EDITORS OF JMBFS

prof. Ing. Miroslava Kačániová, PhD. SUA, Nitra, Slovakia

Ing. Lukáš Hleba, PhD. SUA, Nitra, Slovakia

doc. Ing. Peter Haščík, PhD. SUA, Nitra, Slovakia

PUBLISHER Faculty of Biotechnology and Food Sciences
PUBLISHER CONTACT Slovak University of Agriculture,
Faculty of Biotechnology and Food Sciences,
Tr. Andreja Hlinku 2,
949 76 Nitra, Slovak Republic
MAIN WEB SITE www.fbp.uniag.sk
E-MAIL dekfbp@uniag.sk
ISSUE February – March, 2014, vol. 3, no. 4
PUBLISHING DATE February 1, 2014
PERSONAL CONTACT **Ing. Lukáš Hleba, PhD.**
Department of microbiology
+ publisher contact
E-MAIL lukas.hleba@gmail.com
PHONE NUMBER +421 904 189 191
JMBFS CONTACT www.jmbfs.org
jmbfs@jmbfs.org
info@jmbfs.org
PHOTO GRAPHIC **Ing. Eubomír Rybárik**
Ing. Lukáš Hleba, PhD.

JMBFS Reviewers:

Ján Tomáš, Slovakia
Juraj Čuboň, Slovakia
Peter Massányi, Slovakia
Zdenka Gálová, Slovakia
Dana Urminská, Slovakia
Marcela Capcarová, Slovakia
Adriana Kolesárová, Slovakia
Norbert Lukáč, Slovakia
Anton Kováčik, Slovakia
Dana Tančinová, Slovakia
Zuzana Mašková, Slovakia
Soňa Felšöciiová, Slovakia
Adriana Pavelková, Slovakia
Peter Chrenek, Slovakia
Alexander Sirotkin, Slovakia
Vladimír Foltys, Slovakia
Mária Bauerová, Slovakia
Miroslav Bauer, Slovakia
Vladimír Kmeť, Slovakia
Andrea Lauková, Slovakia
Dietmar Haltrich, Austria
Klaus Dürschmid, Austria
Roman Labuda, Austria
Silvia Labudová, Austria
Vojtech Rada, Czech Republic
Stanislav Kráčmar, Czech Republic
František Buňka, Czech Republic
Leona Buňková, Czech Republic
Robert Gál, Czech Republic
Ivan Holko, Czech Republic
Ladislava Mišurcová, Czech Republic
Ladislav Zeman, Czech Republic
Tomáš Vyhnánek, Czech Republic
Małgorzata Dżugan, Poland
Joanna Barłowska, Poland
Romas Gružauskas, Lithuania
Agila Dauksiene, Lithuania
Nenad Vuković, Serbia
Ivan B. Stančić, Serbia
Sasa Dragin, Serbia
Păcală Nicolae, Romania
Benesik Ioan, Romania
Ștef Lavinia, Romania
Monica Dragomirescu, Romania
Giuseppe Maiorano, Italy
Angel Antonio Carbonell Barrachina, Spain
Manabendra Dutta Choudhury, India
Shamim Ahmad, India
Baher Effat, Egypt
Abd El.Latif Hesman, Egypt
Siree Chaiseri, Thailand
Gadalla Abdalla El-Hassan, Sudan
Mahdi Abbas Saad Shakak, Sudan
Mohamed Hassan Musa, Sudan
Hisanori Tamaki, Japan
Xiaoxu Jiang, USA
Ramalingam Sivaprakash, USA
Jia Wen, USA
Aseer Manilal, Ethiopia