

APPLIED AND ENVIRONMENTAL MICROBIOLOGY

Volume 73

April 2007

No. 8

MINIREVIEW

- Performance, Design, and Analysis in Microbial Source Tracking Studies** Donald M. Stoeckel and Valerie J. Harwood 2405–2415

GENETICS AND MOLECULAR BIOLOGY

- Analysis of Homothallic *Saccharomyces cerevisiae* Strain Mating during Must Fermentation** Jesús Ambrona and Manuel Ramírez 2486–2490
- Ferrous Iron- and Sulfur-Induced Genes in *Sulfolobus metallicus*** Stephan Bathe and Paul R. Norris 2491–2497
- A *mariner*-Based Transposition System for *Listeria monocytogenes*** Min Cao, Alan Pavinski Bitar, and Hélène Marquis 2758–2761

ENZYMOLGY AND PROTEIN ENGINEERING

- Helicobacter pylori* EstV: Identification, Cloning, and Characterization of the First Lipase Isolated from an Epsilon-Proteobacterium** Cristian Ruiz, Serena Falcocchio, F. I. Javier Pastor, Luciano Saso, and Pilar Diaz 2423–2431
- Generation by a Widely Applicable Approach of a Hybrid Dioxygenase Showing Improved Oxidation of Polychlorobiphenyls** Beatriz Cámara, Michael Seeger, Myriam González, Christine Standfuß-Gabisch, Silke Kahl, and Bernd Hofer 2682–2689

PHYSIOLOGY AND BIOTECHNOLOGY

- Molecular Basis of Fructose Utilization by the Wine Yeast *Saccharomyces cerevisiae*: a Mutated *HXT3* Allele Enhances Fructose Fermentation** Carole Guillaume, Pierre Delobel, Jean-Marie Sablayrolles, and Bruno Blondin 2432–2439
- An NAD(P)H-Nicotine Blue Oxidoreductase Is Part of the Nicotine Regulon and May Protect *Arthrobacter nicotinovorans* from Oxidative Stress during Nicotine Catabolism** Marius Mihasan, Calin-Bogdan Chiribau, Thorsten Friedrich, Vlad Artenie, and Roderich Brandsch 2479–2485
- Carbohydrate Starvation Causes a Metabolically Active but Nonculturable State in *Lactococcus lactis*** Balasubramanian Ganesan, Mark R. Stuart, and Bart C. Weimer 2498–2512
- Genetic Engineering of *Zymobacter palmae* for Production of Ethanol from Xylose** Hideshi Yanase, Dai Sato, Keiko Yamamoto, Saori Matsuda, Sho Yamamoto, and Kenji Okamoto 2592–2599
- Oil Field Souring Control by Nitrate-Reducing *Sulfurospirillum* spp. That Outcompete Sulfate-Reducing Bacteria for Organic Electron Donors** Casey Hubert and Gerrit Voordouw 2644–2652
- Characterization of the Role of *para*-Aminobenzoic Acid Biosynthesis in Folate Production by *Lactococcus lactis*** Arno Wegkamp, Wietske van Oorschot, Willem M. de Vos, and Eddy J. Smid 2673–2681

MYCOLOGY

- A Complex Ergovaline Gene Cluster in Epichloë Endophytes of Grasses** Damien J. Fleetwood, Barry Scott, Geoffrey A. Lane, Aiko Tanaka, and Richard D. Johnson 2571–2579
- Induction of Glutathione S-Transferase in Biofilms and Germinating Spores of *Mucor hiemalis* Strain EH5 from Cold Sulfidic Spring Waters** Enamul Hoque, Stephan Pflugmacher, Johannes Fritscher, and Manfred Wolf 2697–2707

Continued on following page

PUBLIC HEALTH MICROBIOLOGY

- Identification of Bacterial DNA Markers for the Detection of Human Fecal Pollution in Water** Orin C. Shanks, Jorge W. Santo Domingo, Jingrang Lu, Catherine A. Kelty, and James E. Graham 2416–2422
- Persistence and Decontamination of *Bacillus atrophaeus* subsp. *globigii* Spores on Corroded Iron in a Model Drinking Water System** Jeffrey G. Szabo, Eugene W. Rice, and Paul L. Bishop 2451–2457
- Characterization of Extended-Host-Range Pseudo-T-Even Bacteriophage Kpp95 Isolated on *Klebsiella pneumoniae*** Lii-Tzu Wu, Shu-Ying Chang, Ming-Ren Yen, Tsuey-Ching Yang, and Yi-Hsiung Tseng 2532–2540
- Ex Vivo Stability of the Rodent-Borne Hantaan Virus in Comparison to That of Arthropod-Borne Members of the *Bunyaviridae* Family** J. Hardestam, M. Simon, K. O. Hedlund, A. Vaheri, J. Klingström, and Å. Lundkvist 2547–2551
- Prevalence and Genetic Properties of *Salmonella enterica* Serovar Typhimurium Definitive Phage Type 104 Isolated from *Rattus norvegicus* and *Rattus rattus* House Rats in Yokohama City, Japan** Eiji Yokoyama, Soichi Maruyama, Hidenori Kabeya, Siro Hara, Shin Sata, Toshiro Kuroki, and Tomoko Yamamoto 2624–2630
- Inactivation of Influenza A Virus on Copper versus Stainless Steel Surfaces** J. O. Noyce, H. Michels, and C. W. Keevil 2748–2750
- Tetracycline Resistance Mediated by *tet(W)*, *tet(M)*, and *tet(O)* Genes of *Bifidobacterium* Isolates from Humans** J. Aires, F. Doucet-Populaire, and M. J. Butel 2751–2754
- Outbreak of an Acute Aflatoxicosis in Kenya in 2004: Identification of the Causal Agent** Claudia Probst, Henry Njapau, and Peter J. Cotty 2762–2764

ENVIRONMENTAL MICROBIOLOGY

- Development of a Real-Time PCR Probe for Quantification of the Heterotrophic Dinoflagellate *Cryptoperidiniopsis brodyi* (Dinophyceae) in Environmental Samples** Tae-Gyu Park, Miguel F. de Salas, Christopher J. S. Bolch, and Gustaaf M. Hallegraeff 2552–2560
- Isolation of *Methylophaga* spp. from Marine Dimethylsulfide-Degrading Enrichment Cultures and Identification of Polypeptides Induced during Growth on Dimethylsulfide** Hendrik Schäfer 2580–2591
- Evidence of Horizontal Transfer of Symbiotic Genes from a *Bradyrhizobium japonicum* Inoculant Strain to Indigenous Diazotrophs *Sinorhizobium (Ensifer) fredii* and *Bradyrhizobium elkanii* in a Brazilian Savannah Soil** Fernando Gomes Barcellos, Pâmela Menna, Jesiane Stefânia da Silva Batista, and Mariangela Hungria 2635–2643
- Cellular Identification of a Novel Uncultured Marine Stramenopile (MAST-12 Clade) Small-Subunit rRNA Gene Sequence from a Norwegian Estuary by Use of Fluorescence In Situ Hybridization-Scanning Electron Microscopy** Karolina Kolodziej and Thorsten Stoeck 2718–2726

MICROBIAL ECOLOGY

- Succession and Diel Transcriptional Response of the Glycolate-Utilizing Component of the Bacterial Community during a Spring Phytoplankton Bloom** Winnie W. Y. Lau, Richard G. Keil, and E. Virginia Armbrust 2440–2450
- Isolation and Characterization of Bacteria Capable of Tolerating the Extreme Conditions of Clean Room Environments** Myron T. La Duc, Anne Dekas, Shariff Osman, Christine Moissl, David Newcombe, and Kasthuri Venkateswaran 2600–2611
- Effects of Abiotic Factors on the Phylogenetic Diversity of Bacterial Communities in Acidic Thermal Springs** Jayanti Mathur, Richard W. Bizzoco, Dean G. Ellis, David A. Lipson, Alexander W. Poole, Richard Levine, and Scott T. Kelley 2612–2623
- Effects of Bacterial Prey Species and Their Concentration on Growth of the Amoebae *Acanthamoeba castellanii* and *Hartmannella vermiformis*** Zoë L. Pickup, Roger Pickup, and Jacqueline D. Parry 2631–2634

Isolation and Characterization of Soil Bacteria That Define <i>Terriglobus</i> gen. nov., in the Phylum Acidobacteria	Stephanie A. Eichorst, John A. Breznak, and Thomas M. Schmidt	2708–2717
FOOD MICROBIOLOGY		
Genotypic and Physiological Characterization of <i>Saccharomyces boulardii</i>, the Probiotic Strain of <i>Saccharomyces cerevisiae</i>	Laura Edwards-Ingram, Paul Gitsham, Nicola Burton, Geoff Warhurst, Ian Clarke, David Hoyle, Stephen G. Oliver, and Lubomira Stateva	2458–2467
New Mathematical Modeling Approach for Predicting Microbial Inactivation by High Hydrostatic Pressure	Bernadette Klotz, D. Leo Pyle, and Bernard M. Mackey	2468–2478
Identification of <i>Lactobacillus sakei</i> Genes Induced during Meat Fermentation and Their Role in Survival and Growth	Eric Hüfner, Tobias Markieton, Stéphane Chaillou, Anne-Marie Crutz-Le Coq, Monique Zagorec, and Christian Hertel	2522–2531
Gene Expression and Biochemical Analysis of Cheese-Ripening Yeasts: Focus on Catabolism of L-Methionine, Lactate, and Lactose	Orianne Cholet, Alain Hénaut, Serge Casaregola, and Pascal Bonnarme	2561–2570
Comparative High-Density Microarray Analysis of Gene Expression during Growth of <i>Lactobacillus helveticus</i> in Milk versus Rich Culture Medium	Vladimir V. Smeianov, Patrick Wechter, Jeffery R. Broadbent, Joanne E. Hughes, Beatriz T. Rodríguez, Tove K. Christensen, Ylva Ardö, and James L. Steele	2661–2672
Yeast Populations Residing on Healthy or <i>Botrytis</i>-Infected Grapes from a Vineyard in Attica, Greece	Aspasia A. Nisiotou and George-John E. Nychas	2765–2768
INVERTEBRATE MICROBIOLOGY		
Increased Prevalence of Ubiquitous Ascomycetes in an Acropoid Coral (<i>Acropora formosa</i>) Exhibiting Symptoms of Brown Band Syndrome and Skeletal Eroding Band Disease	Oded Yarden, Tracy D. Ainsworth, George Roff, William Leggat, Maoz Fine, and Ove Hoegh-Guldberg	2755–2757
METHODS		
Characterization of Growing Microorganisms in Soil by Stable Isotope Probing with H₂¹⁸O	Egbert Schwartz	2541–2546
Fluorescence-Based Bacterial Overlay Method for Simultaneous In Situ Quantification of Surface-Attached Bacteria	Rainer Müller, Gerhard Gröger, Karl-Anton Hiller, Gottfried Schmalz, and Stefan Ruhl	2653–2660
Assessing Adhesion Forces of Type I and Type IV Pili of <i>Xylella fastidiosa</i> Bacteria by Use of a Microfluidic Flow Chamber	Leonardo De La Fuente, Emilie Montanes, Yizhi Meng, Yaxin Li, Thomas J. Burr, H. C. Hoch, and Mingming Wu	2690–2696
Alignment-Independent Comparisons of Human Gastrointestinal Tract Microbial Communities in a Multidimensional 16S rRNA Gene Evolutionary Space	Knut Rudi, Monika Zimonja, Bente Kvenshagen, Jarle Rugtveit, Tore Midtvedt, and Merete Eggesbø	2727–2734
Gene Targeting in Gram-Negative Bacteria by Use of a Mobile Group II Intron (“Targetron”) Expressed from a Broad-Host-Range Vector	Jun Yao and Alan M. Lambowitz	2735–2743
BIODEGRADATION		
The <i>Dehalococcoides</i> Population in Sediment-Free Mixed Cultures Metabolically Dechlorinates the Commercial Polychlorinated Biphenyl Mixture Aroclor 1260	Donna L. Bedard, Kirsti M. Ritalahti, and Frank E. Löffler	2513–2521

Continued from preceding page

EVOLUTIONARY AND GENOMIC MICROBIOLOGY

Unusual Codon Bias in Vinyl Chloride Reductase Genes of *Dehalococcoides* Species

Paul J. McMurdie, Sebastian F. Behrens, Susan Holmes, and Alfred M. Spormann

2744–2747

Downloaded from <http://aem.asm.org/> on December 4, 2020 by guest

Cover photograph (Copyright © 2007, American Society for Microbiology. All Rights Reserved.): In light of the recent dramatic decline of coral reefs worldwide, a better understanding of the factors (biotic and otherwise) contributing to coral health is needed. In this photograph (taken at a depth of 8 m), branching (background) and digitate (foreground) species of acroporid coral from the Great Barrier Reef can be observed. In their article, Yarden et al. describe the changes in fungal prevalence in acroporid corals once diseases set in. (*See related article on page 2755.*)