

APPLIED AND ENVIRONMENTAL MICROBIOLOGY

Volume 74

September 2008

No. 17

MINIREVIEW

Proper Sanitization of Sewage Sludge: a Critical Issue for a Sustainable Society

Veronica Arthurson 5267-5275

GENETICS AND MOLECULAR BIOLOGY

Global Transcriptional Response of the Alkali-Tolerant Cyanobacterium *Synechocystis* sp. Strain PCC 6803 to a pH 10 Environment

Tina C. Summerfield and Louis A. Sherman 5276-5284

Isolation and Characterization of the Gibberellin Biosynthetic Gene Cluster in *Sphaceloma manihoticola*

Christiane Bömke, Maria Cecilia Rojas, Fan Gong, Peter Hedden, and Bettina Tudzynski 5325-5339

Isolation of Predation-Deficient Mutants of *Bdellovibrio bacteriovorus* by Using Transposon Mutagenesis

John J. Tudor, James J. Davis, Marissa Panichella, and Adam Zwolak 5436-5443

Candidate Stress Genes of *Nitrosomonas europaea* for Monitoring Inhibition of Nitrification by Heavy Metals

Sunhwa Park and Roger L. Ely 5475-5482

ENZYMOLGY AND PROTEIN ENGINEERING

Distinct Contributions of the Nisin Biosynthesis Enzymes NisB and NisC and Transporter NisT to Prenisin Production by *Lactococcus lactis*

H. Bart van den Berg van Saparoea, Patrick J. Bakkes, Gert N. Moll, and Arnold J. M. Driessen 5541-5548

PHYSIOLOGY AND BIOTECHNOLOGY

Identification of a Gene Encoding a Transporter Essential for Utilization of C₄ Dicarboxylates in *Corynebacterium glutamicum*

Haruhiko Teramoto, Tomokazu Shirai, Masayuki Inui, and Hideaki Yukawa 5290-5296

Corynebacterium glutamicum Contains 3-Deoxy-D-Arabinose-Heptulosonate 7-Phosphate Synthases That Display Novel Biochemical Features

Ya-Jun Liu, Pan-Pan Li, Ke-Xin Zhao, Bao-Jun Wang, Cheng-Ying Jiang, Harold L. Drake, and Shuang-Jiang Liu 5497-5503

A Recombinant *Saccharomyces cerevisiae* Strain Overproducing Mannoproteins Stabilizes Wine against Protein Haze

Daniel Gonzalez-Ramos, Eduardo Cebollero, and Ramon Gonzalez 5533-5540

MYCOLOGY

Gene Silencing by RNA Interference in the White Rot Fungus *Phanerochaete chrysosporium*

Avi Matityahu, Yitzhak Hadar, Carlos G. Dosoretz, and Paula A. Belinky 5359-5365

PUBLIC HEALTH MICROBIOLOGY

Flock Health Indicators and *Campylobacter* spp. in Commercial Housed Broilers Reared in Great Britain

Stephanie A. Bull, Alastair Thomas, Thomas Humphrey, Johanne Ellis-Iversen, Alasdair J. Cook, Roger Lovell, and Frieda Jorgensen 5408-5413

Effect of Flagellar Mutations on *Yersinia enterocolitica* Biofilm Formation

Tae-Jong Kim, Briana M. Young, and Glenn M. Young 5466-5474

Real-Time PCR Detection of Pathogenic Microorganisms in Roof-Harvested Rainwater in Southeast Queensland, Australia

W. Ahmed, F. Huygens, A. Goonetilleke, and T. Gardner 5490-5496

Continued on following page

Prevalence and Genetic Characterization of *Cryptosporidium* Isolates from Common Brushtail Possums (*Trichosurus vulpecula*) Adapted to Urban Settings

Nichola J. Hill, Elizabeth M. Deane, and Michelle L. Power 5549-5555

ENVIRONMENTAL MICROBIOLOGY

Feasibility of Assessing the Community Composition of Prasinophytes at the Helgoland Roads Sampling Site with a DNA Microarray

Christine Gescher, Katja Metfies, Stephan Frickenhaus, Britta Knefelkamp, Karen H. Wiltshire, and Linda K. Medlin 5305-5316

Novelty and Uniqueness Patterns of Rare Members of the Soil Biosphere

Mostafa S. Elshahed, Noha H. Youssef, Anne M. Spain, Cody Sheik, Fares Z. Najar, Leonid O. Sukharnikov, Bruce A. Roe, James P. Davis, Patrick D. Schloss, Vanessa L. Bailey, and Lee R. Krumholz 5422-5428

Cloning and Overexpression of Alkaline Phosphatase PhoK from *Sphingomonas* sp. Strain BSAR-1 for Bioprecipitation of Uranium from Alkaline Solutions

Kayzad S. Nilgiriwala, Anuradha Alahari, Amara Sambasiva Rao, and Shree Kumar Apte 5516-5523

Importance of Type II Secretion for Survival of *Legionella pneumophila* in Tap Water and in Amoebae at Low Temperatures

Maria A. Söderberg, Jenny Dao, Shawn R. Starkenburg, and Nicholas P. Cianciotto 5583-5588

Short-Term Response of Soil Bacteria to Carbon Enrichment in Different Soil Microsites

C. Monard, F. Binet, and P. Vandenkoornhuyse 5589-5592

MICROBIAL ECOLOGY

Molecular Characterization of the Bacterial Communities in the Different Compartments of a Full-Scale Reverse-Osmosis Water Purification Plant

L. A. Bereschenko, G. H. J. Heilig, M. M. Nederlof, M. C. M. van Loosdrecht, A. J. M. Stams, and G. J. W. Euverink 5297-5304

Phylogenetic Diversity of Sequences of Cyanophage Photosynthetic Gene *psbA* in Marine and Freshwaters

C. Chénard and C. A. Suttle 5317-5324

Bond Strengthening in Oral Bacterial Adhesion to Salivary Conditioning Films

Henny C. van der Mei, Minie Rustema-Abbing, Joop de Vries, and Henk J. Busscher 5511-5515

Methylotrophy in Freshwater *Beggiatoa alba* Strains

Talia Jewell, Sherry L. Huston, and Douglas C. Nelson 5575-5578

FOOD MICROBIOLOGY

Plant Lesions Promote the Rapid Multiplication of *Escherichia coli* O157:H7 on Postharvest Lettuce

M. T. Brandl 5285-5289

Comparative Study of Sugar Fermentation and Protein Expression Patterns of Two *Lactobacillus plantarum* Strains Grown in Three Different Media

Carme Plumed-Ferrer, Kaisa M. Koistinen, Tiina L. Tolonen, Satu J. Lehesranta, Sirpa O. Kärenlampi, Elina Mäkimattila, Vesa Joutsjoki, Vesa Virtanen, and Atte von Wright 5349-5358

Prevalence and Characterization of Enterotoxin Gene-Carrying *Clostridium perfringens* Isolates from Retail Meat Products in Japan

Yasuhiro Miki, Kazuaki Miyamoto, Ikuko Kaneko-Hirano, Kanako Fujiuchi, and Shigeru Akimoto 5366-5372

Rapid Identification and Typing of *Listeria* Species by Matrix-Assisted Laser Desorption Ionization-Time of Flight Mass Spectrometry

Sukhadeo B. Barbuddhe, Thomas Maier, Gerold Schwarz, Markus Kostrzewa, Herbert Hof, Eugen Domann, Trinad Chakraborty, and Torsten Hain 5402-5407

Prevalence and Genetic Characterization of Shiga Toxin-Producing *Escherichia coli* Isolates from Slaughtered Animals in Bangladesh

Transmission of *Yersinia pseudotuberculosis* in the Pork Production Chain from Farm to Slaughterhouse

***Listeria monocytogenes* Biofilm-Associated Protein (BapL) May Contribute to Surface Attachment of *L. monocytogenes* but Is Absent from Many Field Isolates**

Baseline Data from a Belgium-Wide Survey of *Campylobacter* Species Contamination in Chicken Meat Preparations and Considerations for a Reliable Monitoring Program

Differences in Survival among 13 *Listeria monocytogenes* Strains in a Dynamic Model of the Stomach and Small Intestine

Differential Attachment to and Subsequent Contamination of Agricultural Crops by *Salmonella enterica*

PLANT MICROBIOLOGY

Effects of Transgenic Hybrid Aspen Overexpressing Polyphenol Oxidase on Rhizosphere Diversity

Autoaggregation of *Xylella fastidiosa* Cells Is Influenced by Type I and Type IV Pili

INVERTEBRATE MICROBIOLOGY

Sequence Diversity of *Bacillus thuringiensis* Flagellin (H Antigen) Protein at the Intra-H Serotype Level

METHODS

Biological Enrichment of Mycoplasma Agents by Cocultivation with Permissive Cell Cultures

Determination of Clonality and Relatedness of *Vibrio cholerae* Isolates by Genomic Fingerprinting, Using Long-Range Repetitive Element Sequence-Based PCR

Development of a Novel Biofilm Continuous Culture Method for Simultaneous Assessment of Architecture and Gaseous Metabolite Production

Use of Atomic Force Microscopy and Transmission Electron Microscopy for Correlative Studies of Bacterial Capsules

Crellox System and PCR-Based Genome Engineering in *Bacillus subtilis*

Selective Isolation and Rapid Identification of Members of the Genus *Micromonospora*

Mohammad A. Islam, Abdus S. Mondol, Enne de Boer, Rijkelt R. Beumer, Marcel H. Zwietering, Kaisar A. Talukder, and Annet E. Heuvelink 5414-5421

Riikka Laukkanen, Pilar Ortiz Martínez, Kirsi-Maarit Siekkinen, Jukka Ranta, Riitta Majjala, and Hannu Korkeala 5444-5450

Suzanne J. Jordan, Stefano Perni, Sarah Glenn, Isabel Fernandes, Manuela Barbosa, Manuela Sol, Rogerio P. Tenreiro, Lelia Chambel, Belarmino Barata, Isabel Zilhao, Timothy G. Aldsworth, Andreia Adriaio, M. Leonor Faleiro, Gilbert Shama, and Peter W. Andrew 5451-5456

Ihab Habib, Imca Sampers, Mieke Uyttendaele, Dirk Berkvens, and Lieven De Zutter 5483-5489

Ioanna M. Barmpalia-Davis, Ifigenia Geornaras, Patricia A. Kendall, and John N. Sofos 5563-5567

Jeri D. Barak, Anita Liang, and Koh-Eun Narm 5568-5570

Kathryn L. Oliver, Richard C. Hamelin, and William E. Hintz 5340-5348

Leonardo De La Fuente, Thomas J. Burr, and Harvey C. Hoch 5579-5582

Dong Xu and Jean-Charles Côté 5524-5532

Dmitriy V. Volokhov, Hyesuk Kong, Joseph George, Christine Anderson, and Vladimir E. Chizhikov 5383-5391

Nipa Chokesajjawatee, Young-Gun Zo, and Rita R. Colwell 5392-5401

Yutaka Yawata, Nobuhiko Nomura, and Hiroo Uchiyama 5429-5435

Oleg Stukalov, Anton Korenevsky, Terry J. Beveridge, and John R. Dutcher 5457-5465

Xin Yan, Hao-Jie Yu, Qing Hong, and Shun-Peng Li 5556-5562

Danheng Qiu, Jisheng Ruan, and Ying Huang 5593-5597

BIODEGRADATION

Secretion and Transcriptional Regulation of the Latex-Clearing Protein, Lcp, by the Rubber-Degrading Bacterium *Streptomyces* sp. Strain K30

Meral Yikmis, Matthias Arenskötter, Karsten Rose, Nicole Lange, Henrike Wernsmann, Lars Wiefel, and Alexander Steinbüchel 5373-5382

EVOLUTIONARY AND GENOMIC MICROBIOLOGY

Dynamics of Introduced Populations of *Phragmidium violaceum* and Implications for Biological Control of European Blackberry in Australia

D. R. Gomez, K. J. Evans, J. Baker, P. R. Harvey, and E. S. Scott 5504-5510

PCR Detection of Type I Polyketide Synthase Genes in Myxobacteria

Hisayuki Komaki, Ryosuke Fudou, Takashi Iizuka, Daisuke Nakajima, Koei Okazaki, Daisuke Shibata, Makoto Ojika, and Shigeaki Harayama 5571-5574

Cover photograph (Copyright © 2008, American Society for Microbiology. All Rights Reserved.): Photograph of a cyanobacterial bloom on the Hawkesbury River near Sydney, Australia (top), and a micrograph of a Brazilian strain of *Cylindrospermopsis raciborskii* known to produce saxitoxin and containing the *sxt* gene cluster proposed to encode that neurotoxic alkaloid. Photographs and design by Leanne Pearson, Peter Hawkins, Troco Mihali, and Brett Neilan. (See related article in July 2008, vol. 74, no. 13, p. 4044.)