

GENETICS AND MOLECULAR BIOLOGY

Characterization of Replication and Conjugation of *Streptomyces* Circular Plasmids pFP1 and pFP11 and Their Ability To Propagate in Linear Mode with Artificially Attached Telomeres

Ran Zhang, Ana Zeng, Ping Fang, and Zhongjun Qin 3368–3376

In Vitro Mutagenesis of *Bacillus subtilis* by Using a Modified Tn7 Transposon with an Outward-Facing Inducible Promoter

Christophe Bordi, Bronwyn G. Butcher, Qiaojuan Shi, Anna-Barbara Hachmann, Joseph E. Peters, and John D. Helmann 3419–3425

The Probiotic *Lactobacillus johnsonii* NCC 533 Produces High-Molecular-Mass Inulin from Sucrose by Using an Inulosucrase Enzyme

Munir A. Anwar, Slavko Kralj, Marc J. E. C. van der Maarel, and Lubbert Dijkhuizen 3426–3433

Characterization and Genomic Analysis of Phage ascc ϕ 28, a Phage of the Family Podoviridae Infecting *Lactococcus lactis*

Steven E. Kotsonis, Ian B. Powell, Christopher J. Pillidge, Gaëtan K. Y. Limsowtin, Alan J. Hillier, and Barrie E. Davidson 3453–3460

The Cyclic AMP-Dependent Catabolite Repression System of *Serratia marcescens* Mediates Biofilm Formation through Regulation of Type 1 Fimbriae

Eric J. Kalivoda, Nicholas A. Stella, Dawn M. O'Dee, Gerard J. Nau, and Robert M. Q. Shanks 3461–3470

ENZYMOLGY AND PROTEIN ENGINEERING

Improvement of the Glutaryl-7-Aminocephalosporanic Acid Acylase Activity of a Bacterial γ -Glutamyltranspeptidase

Chiaki Yamada, Kyoko Kijima, Sayaka Ishihara, Chinatsu Miwa, Kei Wada, Toshihiro Okada, Keiichi Fukuyama, Hidehiko Kumagai, and Hideyuki Suzuki 3400–3409

Investigating the Properties of *Bacillus thuringiensis* Cry Proteins with Novel Loop Replacements Created Using Combinatorial Molecular Biology

Craig R. Pigott, Martin S. King, and David J. Ellar 3497–3511

PHYSIOLOGY AND BIOTECHNOLOGY

Factors Contributing to Heat Resistance of *Clostridium perfringens* Endospores

Benjamin Orsburn, Stephen B. Melville, and David L. Popham 3328–3335

Synthesis and Accumulation of Cyanophycin in Transgenic Strains of *Saccharomyces cerevisiae*

Anna Steinle, Fred Bernd Oppermann-Sanio, Rudolf Reichelt, and Alexander Steinbüchel 3410–3418

Responses of *Mycobacterium tuberculosis* Hemoglobin Promoters to In Vitro and In Vivo Growth Conditions

Sudesh Pawaria, Amrita Lama, Manoj Raje, and Kanak L. Dikshit 3512–3522

Coenzyme F₄₂₀-Dependent Sulfite Reductase-Enabled Sulfite Detoxification and Use of Sulfite as a Sole Sulfur Source by *Methanococcus maripaludis*

Eric F. Johnson and Biswarup Mukhopadhyay 3591–3595

High-Yield Production of Secreted Active Proteins by the *Pseudomonas aeruginosa* Type III Secretion System

M. Derouazi, B. Toussaint, L. Quéneé, O. Epaulard, M. Guillaume, R. Marlu, and B. Polack 3601–3604

Construction of a Reporter Vector System for In Vivo Analysis of Promoter Activity in *Propionibacterium freudenreichii*

Therese Faye, Anita Åsebø, Zhian Salehian, Thor Langsrud, Ingolf F. Nes, and Dag Anders Brede 3615–3617

MYCOLOGY

Isolation of Fungal Cellobiohydrolase I Genes from Sporocarps and Forest Soils by PCR

Aspergillus nidulans Natural Product Biosynthesis Is Regulated by MpkB, a Putative Pheromone Response Mitogen-Activated Protein Kinase

Ivan P. Edwards, Rima A. Upchurch, and Donald R. Zak 3481-3489
Ali Atoui, Dapeng Bao, Navgeet Kaur, W. Scott Grayburn, and Ana M. Calvo 3596-3600

PUBLIC HEALTH MICROBIOLOGY

Shewanella and *Photobacterium* spp. in Oysters and Seawater from the Delaware Bay

Detection and Quantification of Group C Rotaviruses in Communal Sewage

Bayesian-Integrated Microbial Forensics

Comparison of *Campylobacter* Populations in Wild Geese with Those in Starlings and Free-Range Poultry on the Same Farm

Gary P. Richards, Michael A. Watson, Edward J. Crane III, Iris G. Burt, and David Bushek 3323-3327
Edina Meleg, Krisztián Bánya, Vito Martella, Baoming Jiang, Béla Kocsis, Péter Kisfali, Béla Meleg, and György Szűcs 3394-3399
Kristin H. Jarman, Helen W. Kreuzer-Martin, David S. Wunschel, Nancy B. Valentine, John B. Cliff, Catherine E. Petersen, Heather A. Colburn, and Karen L. Wahl 3573-3582
F. M. Colles, K. E. Dingle, A. J. Cody, and M. C. J. Maiden 3583-3590

ENVIRONMENTAL MICROBIOLOGY

Anaerobic and Aerobic Degradation of Cyanophycin by the Denitrifying Bacterium *Pseudomonas alcaligenes* Strain DIP1 and Role of Three Other Coisolates in a Mixed Bacterial Consortium

Characterization of Diazotrophs Containing Mo-Independent Nitrogenases, Isolated from Diverse Natural Environments

Assessing Genetic Heterogeneity within Bacterial Species Isolated from Gastrointestinal and Environmental Samples: How Many Isolates Does It Take?

Comparative Genomics of "*Dehalococcoides ethenogenes*" 195 and an Enrichment Culture Containing Unsequenced "*Dehalococcoides*" Strains

Community-Level Assessment of the Effects of the Broad-Spectrum Antimicrobial Chlorhexidine on the Outcome of River Microbial Biofilm Development

Blocking of Bacterial Biofilm Formation by a Fish Protein Coating

Detection of Active Butyrate-Degrading Microorganisms in Methanogenic Sludges by RNA-Based Stable Isotope Probing

Ahmed Sallam and Alexander Steinbüchel 3434-3443
Doris A. Betancourt, Telisa M. Loveless, James W. Brown, and Paul E. Bishop 3471-3480
D. Döpfer, W. Buist, Y. Soyer, M. A. Munoz, R. N. Zadoks, L. Geue, and B. Engel 3490-3496
Kimberlee A. West, David R. Johnson, Ping Hu, Todd Z. DeSantis, Eoin L. Brodie, Patrick K. H. Lee, Helene Feil, Gary L. Andersen, Stephen H. Zinder, and Lisa Alvarez-Cohen 3533-3540
J. R. Lawrence, B. Zhu, G. D. W. Swerhone, E. Topp, J. Roy, L. I. Wassenaar, T. Rema, and D. R. Korber 3541-3550
Rebecca Munk Vejborg and Per Klemm 3551-3555
Masashi Hatamoto, Hiroyuki Imachi, Yuto Yashiro, Akiyoshi Ohashi, and Hideki Harada 3610-3616

MICROBIAL ECOLOGY

Development of a Cell Surface Display System in a Magnetotactic Bacterium, "*Magnetospirillum magneticum*" AMB-1

Masayoshi Tanaka, Yuko Nakata, Tetsushi Mori, Yoshiko Okamura, Hitoshi Miyasaka, Haruko Takeyama, and Tadashi Matsunaga 3342-3348

Factors Controlling the Distribution of Archaeal Tetraethers in Terrestrial Hot Springs

Ann Pearson, Yundan Pi, Weidong Zhao, WenJun Li, Yiliang Li, William Inskeep, Anna Perevalova, Christopher Romanek, Shuguang Li, and Chuanlun L. Zhang 3523-3532

GEOMICROBIOLOGY

Estimates of Biogenic Methane Production Rates in Deep Marine Sediments at Hydrate Ridge, Cascadia Margin

F. S. Colwell, S. Boyd, M. E. Delwiche, D. W. Reed, T. J. Phelps, and D. T. Newby 3444-3452

FOOD MICROBIOLOGY

Inactivation of *Bacillus anthracis* Spores by a Combination of Biocides and Heating under High-Temperature Short-Time Pasteurization Conditions

Sa Xu, Theodore P. Labuza, and Francisco Diez-Gonzalez 3336-3341

Evaluation of the Persistence of Infectious Human Noroviruses on Food Surfaces by Using Real-Time Nucleic Acid Sequence-Based Amplification

Safaa Lamhoujeb, Ismail Fliss, Solange E. Ngazoa, and Julie Jean 3349-3355

Transcriptional Analysis of L-Methionine Catabolism in the Cheese-Ripening Yeast *Yarrowia lipolytica* in Relation to Volatile Sulfur Compound Biosynthesis

Orianne Cholet, Alain Hénaut, Agnès Hébert, and Pascal Bonnarne 3356-3367

PLANT MICROBIOLOGY

Characterization of the RND-Type Multidrug Efflux Pump MexAB-OprM of the Plant Pathogen *Pseudomonas syringae*

Savina O. Stoitsova, Yvonne Braun, Matthias S. Ullrich, and Helge Weingart 3387-3393

INVERTEBRATE MICROBIOLOGY

Evolutionary Relationships of "*Candidatus Endobugula*" Bacterial Symbionts and Their *Bugula* Bryozoan Hosts

Grace E. Lim-Fong, Lindsay A. Regali, and Margo G. Haygood 3605-3609

METHODS

Development and Use of an Efficient System for Random *mariner* Transposon Mutagenesis To Identify Novel Genetic Determinants of Biofilm Formation in the Core *Enterococcus faecalis* Genome

Christopher J. Kristich, Vy T. Nguyen, Thinh Le, Aaron M. T. Barnes, Suzanne Grindle, and Gary M. Dunny 3377-3386

EVOLUTIONARY AND GENOMIC MICROBIOLOGY

Complete Genome Sequence of *Nitrosospora multififormis*, an Ammonia-Oxidizing Bacterium from the Soil Environment

Jeanette M. Norton, Martin G. Klotz, Lisa Y. Stein, Daniel J. Arp, Peter J. Bottomley, Patrick S. G. Chain, Loren J. Hauser, Miriam L. Land, Frank W. Larimer, Maria W. Shin, and Shawn R. Starkenburg 3559-3572

AUTHOR'S CORRECTION

Effects of Imposed Salinity Gradients on Dissimilatory Arsenate Reduction, Sulfate Reduction, and Other Microbial Processes in Sediments from Two California Soda Lakes

T. R. Kulp, S. Han, C. W. Saltikov, B. D. Lanoil, K. Zargar, and R. S. Oremland 3618