

JOURNAL OF BACTERIOLOGY

Volume 191

July 2009

No. 14

GENOMICS AND PROTEOMICS

- Genome Sequencing and Comparative Analysis of *Klebsiella pneumoniae* NTUH-K2044, a Strain Causing Liver Abscess and Meningitis**
Keh-Ming Wu, Ling-Hui Li, Jing-Jou Yan, Nina Tsao, Tsai-Lien Liao, Hui-Chi Tsai, Chang-Phone Fung, Hsiang-Ju Chen, Yen-Ming Liu, Jin-Tung Wang, Chi-Tai Fang, Shan-Chwen Chang, Hung-Yu Shu, Tze-Tze Liu, Ying-Tsong Chen, Yih-Ru Shiau, Tsai-Ling Lauderdale, Ih-Jen Su, Ralph Kirby, and Shih-Feng Tsai 4492–4501
- Genome Sequence of *Azotobacter vinelandii*, an Obligate Aerobe Specialized To Support Diverse Anaerobic Metabolic Processes**
João C. Setubal, Patricia dos Santos, Barry S. Goldman, Helga Ertesvåg, Guadalupe Espin, Luis M. Rubio, Svein Valla, Nalvo F. Almeida, Divya Balasubramanian, Lindsey Cromes, Leonardo Curatti, Zijin Du, Eric Godsy, Brad Goodner, Kaitlyn Hellner-Burris, José A. Hernandez, Katherine Houmiel, Juan Imperial, Christina Kennedy, Timothy J. Larson, Phil Latreille, Lauren S. Ligon, Jing Lu, Mali Mærk, Nancy M. Miller, Stacie Norton, Ina P. O'Carroll, Ian Paulsen, Estella C. Raulfs, Rebecca Roemer, James Rosser, Daniel Segura, Steve Slater, Shawn L. Stricklin, David J. Studholme, Jian Sun, Carlos J. Viana, Erik Wallin, Baomin Wang, Cathy Wheeler, Huijun Zhu, Dennis R. Dean, Ray Dixon, and Derek Wood 4534–4545

MOLECULAR BIOLOGY OF PATHOGENS

- Survival of Pathogenic Mycobacteria in Macrophages Is Mediated through Autophosphorylation of Protein Kinase G**
Nicole Scherr, Philipp Müller, Damir Perisa, Benoît Combaluzier, Paul Jenö, and Jean Pieters 4546–4554

BACTERIOPHAGES, TRANSPOSONS, AND PLASMIDS

- Novel Toxin-Antitoxin System Composed of Serine Protease and AAA-ATPase Homologues Determines the High Level of Stability and Incompatibility of the Tumor-Inducing Plasmid pTiC58**
Shinji Yamamoto, Kazuya Kiyokawa, Katsuyuki Tanaka, Kazuki Moriguchi, and Katsunori Suzuki 4656–4666
- Identification of ORF636 in Phage ϕ SLT Carrying Pantone-Valentine Leukocidin Genes, Acting as an Adhesion Protein for a Poly(Glycerophosphate) Chain of Lipoteichoic Acid on the Cell Surface of *Staphylococcus aureus***
Jun Kaneko, Sachiko Narita-Yamada, Yukari Wakabayashi, and Yoshiyuki Kamio 4674–4680

Continued on following page

GENE REGULATION

- Dominant Negative Autoregulation Limits Steady-State Repression Levels in Gene Networks** Szabolcs Semsey, Sandeep Krishna, János Erdőssy, Péter Horváth, László Orosz, Kim Sneppen, and Sankar Adhya 4487–4491
- Involvement of the Leucine Response Transcription Factor LeuO in Regulation of the Genes for Sulfa Drug Efflux** Tomohiro Shimada, Kaneyoshi Yamamoto, and Akira Ishihama 4562–4571
- Identification of a Catabolite-Responsive Element Necessary for Regulation of the *cry4A* Gene of *Bacillus thuringiensis* subsp. *israelensis*** Sashi Kant, Rupam Kapoor, and Nirupama Banerjee 4687–4692

MICROBIAL CELL BIOLOGY

- High-Force Generation Is a Conserved Property of Type IV Pilus Systems** Martin Clausen, Vladimir Jakovljevic, Lotte Sjøgaard-Andersen, and Berenike Maier 4633–4638

PLANT MICROBIOLOGY

- RsmC of *Erwinia carotovora* subsp. *carotovora* Negatively Controls Motility, Extracellular Protein Production, and Virulence by Binding FlhD and Modulating Transcriptional Activity of the Master Regulator, FlhDC** Asita Chatterjee, Yaya Cui, and Arun K. Chatterjee 4582–4593
- The *Sinorhizobium meliloti* LpxXL and AcpXL Proteins Play Important Roles in Bacteroid Development within Alfalfa** Andreas F. Haag, Silvia Wehmeier, Sebastian Beck, Victoria L. Marlow, Vivien Fletcher, Euan K. James, and Gail P. Ferguson 4681–4686

GENETICS AND MOLECULAR BIOLOGY

- Genetic Determinants of *Silicibacter* sp. TM1040 Motility** Robert Belas, Eiko Horikawa, Shin-Ichi Aizawa, and Rooge Suvanasuthi 4502–4512
- Analysis of DNA Binding by a Eubacterial Zinc Finger Transcription Factor** Victor J. McAlister and Gail E. Christie 4513–4521
- orf4* of the *Bacillus cereus* *sigB* Gene Cluster Encodes a General Stress-Inducible Dps-Like Bacterioferritin** Shin-Wei Wang, Chien-Yen Chen, Joseph T. Tseng, Shih-Hsiung Liang, Ssu-Ching Chen, Chienyan Hsieh, Yen-hsu Chen, and Chien-Cheng Chen 4522–4533
- Transcription Activity of Individual *rrn* Operons in *Bacillus subtilis* Mutants Deficient in (p)ppGpp Synthetase Genes, *relA*, *yjbM*, and *ywaC*** Yousuke Natori, Kazumi Tagami, Kana Murakami, Sawako Yoshida, Osamu Tanigawa, Yoonsuh Moh, Kenta Masuda, Tetsuya Wada, Shota Suzuki, Hideaki Nanamiya, Yuzuru Tozawa, and Fujio Kawamura 4555–4561
- Activation of the Promoter of the Fengycin Synthetase Operon by the UP Element** Wan-Ju Ke, Ban-Yang Chang, Tsuey-Pin Lin, and Shih-Tung Liu 4615–4623
- Gene Expression Patterns Associated with the Biosynthesis of the Sunscreen Scytonemin in *Nostoc punctiforme* ATCC 29133 in Response to UVA Radiation** Tanya Soule, Ferran Garcia-Pichel, and Valerie Stout 4639–4646
- The Oligopeptide Transport System Is Essential for the Development of Natural Competence in *Streptococcus thermophilus* Strain LMD-9** Rozenn Gardan, Colette Besset, Alain Guillot, Christophe Gitton, and Véronique Monnet 4647–4655

PHYSIOLOGY AND METABOLISM

- Redundant Hydrogen Peroxide Scavengers Contribute to *Salmonella* Virulence and Oxidative Stress Resistance** Magali Hébrard, Julie P. M. Viala, Stéphane Méresse, Frédéric Barras, and Laurent Aussel 4605–4614

Continued from preceding page

Two Distinct Pathways for Metabolism of Theophylline and Caffeine Are Coexpressed in <i>Pseudomonas putida</i> CBB5	Chi Li Yu, Tai Man Louie, Ryan Summers, Yogesh Kale, Sridhar Gopishetty, and Mani Subramanian	4624–4632
Uptake of Glycerol-2-Phosphate via the <i>ugp</i>-Encoded Transporter in <i>Escherichia coli</i> K-12	Kechao Yang, Mi Wang, and William W. Metcalf	4667–4670
Involvement of Two Transport Systems and a Specific Porin in the Uptake of Phthalate by <i>Burkholderia</i> spp.	Hung-Kuang Chang, Jonathan J. Dennis, and Gerben J. Zylstra	4671–4673
ENZYMES AND PROTEINS		
3-Hydroxypropionyl–Coenzyme A Dehydratase and Acryloyl-Coenzyme A Reductase, Enzymes of the Autotrophic 3-Hydroxypropionate/4-Hydroxybutyrate Cycle in the <i>Sulfolobales</i>	Robin Teufel, Johannes W. Kung, Daniel Kockelkorn, Birgit E. Alber, and Georg Fuchs	4572–4581
Analysis of Achromobactin Biosynthesis by <i>Pseudomonas syringae</i> pv. <i>syringae</i> B728a	Andrew D. Berti and Michael G. Thomas	4594–4604
GENOME ANNOUNCEMENT		
Complete Genome Sequence of <i>Aggregatibacter (Haemophilus) aphrophilus</i> NJ8700	Maria Pia Di Bonaventura, Rob DeSalle, Mihai Pop, Niranjana Nagarajan, David H. Figurski, Daniel H. Fine, Jeffrey B. Kaplan, and Paul J. Planet	4693–4694
AUTHOR'S CORRECTION		
CodY in <i>Staphylococcus aureus</i>: a Regulatory Link between Metabolism and Virulence Gene Expression	Konstanze Pohl, Patrice Francois, Ludwig Stenz, Frank Schlink, Tobias Geiger, Silvia Herbert, Christiane Goerke, Jacques Schrenzel, and Christiane Wolz	4695

Cover photograph (Copyright © 2009, American Society for Microbiology. All Rights Reserved.): *Azotobacter vinelandii* DJ grown under nitrogen-fixing conditions on an agar plate containing Burk's medium. The soil background resembles its natural habitat. (Final composition of photo by Ivan Morozov.) (See related article on page 4534.)