

FM
J80/basm



December 2014
Volume 196
Number 23
Published Twice Monthly



AMERICAN
SOCIETY FOR
MICROBIOLOGY

JB

Journal of Bacteriology

TABLE OF CONTENTS

ARTICLES

- | | | |
|--|--|-----------|
| Near-Real-Time Analysis of the Phenotypic Responses of <i>Escherichia coli</i> to 1-Butanol Exposure Using Raman Spectroscopy | Theresah N. K. Zu, Ahmad I. M. Athamneh, Robert S. Wallace, Eva Collakova, Ryan S. Senger | 3983–3991 |
| Chemotaxis of <i>Escherichia coli</i> to Norepinephrine (NE) Requires Conversion of NE to 3,4-Dihydroxymandelic Acid | Sasikiran Pasupuleti, Nitesh Sule, William B. Cohn, Duncan S. MacKenzie, Arul Jayaraman, Michael D. Manson | 3992–4000 |
| Assembling Flagella in <i>Salmonella</i> Mutant Strains Producing a Type III Export Apparatus without FliO | Clive S. Barker, Irina V. Meshcheryakova, Tomoharu Inoue, Fadel A. Samatey | 4001–4011 |
| <i>Haemophilus ducreyi</i> RpoE and CpxRA Appear To Play Distinct yet Complementary Roles in Regulation of Envelope-Related Functions | Dharanesh Gangaiah, Xinjun Zhang, Beth Baker, Kate R. Fortney, Yunlong Liu, Robert S. Munson, Jr., Stanley M. Spinola | 4012–4025 |
| Cell Envelope Components Influencing Filament Length in the Heterocyst-Forming Cyanobacterium <i>Anabaena</i> sp. Strain PCC 7120 | Mireia Burnat, Enrico Schleiff, Enrique Flores | 4026–4035 |
| A CRISPR with Roles in <i>Myxococcus xanthus</i> Development and Exopolysaccharide Production | Regina A. Wallace, Wesley P. Black, Xianshuang Yang, Zhaomin Yang | 4036–4043 |
| Role of Lipase from Community-Associated Methicillin-Resistant <i>Staphylococcus aureus</i> Strain USA300 in Hydrolyzing Triglycerides into Growth-Inhibitory Free Fatty Acids | Brigitte Cadieux, Vithooshan Vijayakumaran, Mark A. Bernards, Martin J. McGavin, David E. Heinrichs | 4044–4056 |
| Involvement of PG2212 Zinc Finger Protein in the Regulation of Oxidative Stress Resistance in <i>Porphyromonas gingivalis</i> W83 | Yuetan Dou, Wilson Aruni, Tianlong Luo, Francis Roy, Charles Wang, Hansel M. Fletcher | 4057–4070 |
| A Novel, Broad-Range, CTX Φ -Derived Stable Integrative Expression Vector for Functional Studies | Bhabatosh Das, Reena Kumari, Archana Pant, Sourav Sen Gupta, Shruti Saxena, Ojasvi Mehta, Gopinath Balakrish Nair | 4071–4080 |
| The Diguanylate Cyclase SadC Is a Central Player in Gac/Rsm-Mediated Biofilm Formation in <i>Pseudomonas aeruginosa</i> | Joana A. Moscoso, Tina Jaeger, Martina Valentini, Kailyn Hui, Urs Jenal, Alain Filloux | 4081–4088 |
| Unique Genomic Arrangements in an Invasive Serotype M23 Strain of <i>Streptococcus pyogenes</i> Identify Genes That Induce Hypervirulence | Yunjuan Bao, Zhong Liang, Claire Booyjzen, Jeffrey A. Mayfield, Yang Li, Shaun W. Lee, Victoria A. Ploplis, Hui Song, Francis J. Castellino | 4089–4102 |
| Characterization of Five β -Glycoside Hydrolases from <i>Cellulomonas fimi</i> ATCC 484 | Juan Gao, Warren Wakarchuk | 4103–4110 |
| Charge Requirements of Lipid II Flippase Activity in <i>Escherichia coli</i> | Emily K. Butler, Wee Boon Tan, Hildy Joseph, Natividad Ruiz | 4111–4119 |
| <i>Mycobacterium tuberculosis</i> MtrB Sensor Kinase Interactions with FtsI and Wag31 Proteins Reveal a Role for MtrB Distinct from That Regulating MtrA Activities | Renata Plocinska, Luis Martinez, Purushotham Gorla, Emmanuel Pandeeti, Krishna Sarva, Ewelina Blaszczyk, Jaroslaw Dziadek, Murty V. Madiraju, Malini Rajagopalan | 4120–4129 |

Methylamine Utilization via the N-Methylglutamate Pathway in <i>Methylobacterium extorquens</i> PA1 Involves a Novel Flow of Carbon through C₁ Assimilation and Dissimilation Pathways	Dipti D. Nayak, Christopher J. Marx	4130–4139
Role of Adaptor TrfA and ClpPC in Controlling Levels of SsrA-Tagged Proteins and Antitoxins in <i>Staphylococcus aureus</i>	Niles P. Donegan, Jonathan S. Marvin, Ambrose L. Cheung	4140–4151
Oxygen-Dependent Control of Respiratory Nitrate Reduction in Mycelium of <i>Streptomyces coelicolor</i> A3(2)	Marco Fischer, Dörte Falke, Tony Pawlik, R. Gary Sawers	4152–4162
The PqsR and RhlR Transcriptional Regulators Determine the Level of <i>Pseudomonas</i> Quinolone Signal Synthesis in <i>Pseudomonas aeruginosa</i> by Producing Two Different <i>pqsABCDE</i> mRNA Isoforms	Stephan Brouwer, Christian Pustelny, Christiane Ritter, Birgit Klinkert, Franz Narberhaus, Susanne Häussler	4163–4171
Two Fis Regulators Directly Repress the Expression of Numerous Effector-Encoding Genes in <i>Legionella pneumophila</i>	Tal Zusman, Yariv Speiser, Gil Segal	4172–4183
Sporulation during Growth in a Gut Isolate of <i>Bacillus subtilis</i>	Cláudia R. Serra, Ashlee M. Earl, Teresa M. Barbosa, Roberto Kolter, Adriano O. Henriques	4184–4196
ERRATUM		
Erratum for Boldrin et al., The Phosphatidyl-<i>myo</i>-Inositol Mannosyltransferase PimA Is Essential for <i>Mycobacterium tuberculosis</i> Growth <i>In Vitro</i> and <i>In Vivo</i>	Francesca Boldrin, Marcello Ventura, Giulia Degiacomi, Sudha Ravishankar, Claudia Sala, Zuzana Svetlikova, Anisha Ambady, Neeraj Dhar, Jana Kordulakova, Ming Zhang, Agnese Serafini, K. G. Vishwas, Gaëlle S. Kolly, Naveen Kumar, Giorgio Palù, Marcelo E. Guerin, Katarina Mikusova, Stewart T. Cole, Riccardo Manganeli	4197