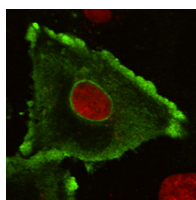




CONTENTS • JANUARY 2021 • VOLUME 89, NO. 1

COVER IMAGE



*Cover photograph:* The host glycolytic enzyme aldolase A localizes at *Chlamydia trachomatis* inclusions. HeLa cells expressing 3×FLAG-tagged aldolase A were infected with a strain of *C. trachomatis* serovar L2 expressing mCherry (red). Cells were fixed at 24 h postinfection and immunostained with anti-FLAG antibodies (green) to determine the localization of aldolase A within infected cells. Host aldolase A localizes at the *C. trachomatis* inclusion membrane during infection and confers a developmental advantage to the bacteria. (See related article in December 2020, vol. 88, e00545-20.) (Copyright © 2020 American Society for Microbiology. All Rights Reserved.)

SPOTLIGHT

Articles of Significant Interest in This Issue

e00704-20

MOLECULAR PATHOGENESIS

Competing Substrates for the Bifunctional Diaminopimelic Acid Epimerase/Glutamate Racemase Modulate Peptidoglycan Synthesis in *Chlamydia trachomatis*

e00401-20

Raghuveer Singh, Jessica A. Slade, Mary Brockett, Daniel Mendez, George W. Liechti, Anthony T. Maurelli

Role of *metAB* in Methionine Metabolism and Optimal Chicken Colonization in *Campylobacter jejuni*

e00542-20

Brandon Ruddell, Alan Hassall, Orhan Sahin, Qijing Zhang, Paul J. Plummer, Amanda J. Kreuder

CELLULAR MICROBIOLOGY: PATHOGEN-HOST CELL MOLECULAR INTERACTIONS

Effects of Myeloid *Hif-1β* Deletion on the Intestinal Microbiota in Mice under Environmental Hypoxia

e00474-20

Ni Han, Zhiyuan Pan, Zongyu Huang, Yuxiao Chang, Fengyi Hou, Guangwei Liu, Ruifu Yang, Yujing Bi

The Extracellular Polysaccharide Matrix of *Pseudomonas aeruginosa* Biofilms Is a Determinant of Polymorphonuclear Leukocyte Responses

e00631-20

Morten Rybtke, Peter Østrup Jensen, Claus Henrik Nielsen, Tim Tolker-Nielsen

BACTERIAL INFECTIONS

GigC, a LysR Family Transcription Regulator, Is Required for Cysteine Metabolism and Virulence in *Acinetobacter baumannii*

e00180-20

Michael J. Gebhardt, Daniel M. Czyz, Shweta Singh, Daniel V. Zurawski, Lev Becker, Howard A. Shuman

The Impact of Circulating Antibody on Group B *Streptococcus* Intestinal Colonization and Invasive Disease

e00348-20

Michelle J. Vaz, Sheryl A. Purrier, Maryam Bonakdar, Anna B. Chamby, Adam J. Ratner, Tara M. Randis

Bronchial Epithelial Tet2 Maintains Epithelial Integrity during Acute *Pseudomonas aeruginosa* Pneumonia

e00603-20

Wanhai Qin, Xanthe Brands, Cornelis van't Veer, Alex F. de Vos, Brendon P. Scicluna, Tom van der Poll

***Burkholderia pseudomallei* as an Enteric Pathogen: Identification of Virulence Factors Mediating Gastrointestinal Infection** e00654-20

*Javier I. Sanchez-Villamil, Daniel Tapia, Grace I. Borlee, Bradley R. Borlee, David H. Walker, Alfredo G. Torres*

**HOST RESPONSE AND INFLAMMATION**

**Regulation of Pulmonary Bacterial Immunity by Follistatin-Like Protein 1** e00298-20

*Matthew Henkel, Justin A. Dutta, Jessica Partyka, Taylor Eddens, Raphael Hirsch, Jay K. Kolls, Brian T. Campfield*

**Effect of CARD9 Deficiency on Neutrophil-Mediated Host Defense against Pulmonary Infection with *Streptococcus pneumoniae*** e00305-20

*Shigenari Ishizuka, Rin Yokoyama, Ko Sato, Ryuhei Shiroma, Ayako Nakahira, Hideki Yamamoto, Kazuki Takano, Takafumi Kagesawa, Tomomitsu Miyasaka, Jun Kasamatsu, Emi Kanno, Hiromasa Tanno, Keiko Ishii, Kazuyoshi Kawakami*

**Toll-Like Receptor 2-Tpl2-Dependent ERK Signaling Drives Inverse Interleukin 12 Regulation in Dendritic Cells and Macrophages** e00323-20

*Sarah G. Groft, Nancy Nagy, W. Henry Boom, Clifford V. Harding*

**Failure of CD4 T Cell-Deficient Hosts To Control Chronic Nontyphoidal *Salmonella* Infection Leads to Exacerbated Inflammation, Chronic Anemia, and Altered Myelopoiesis** e00417-20

*Wendy P. Loomis, Martha A. Delaney, Matthew L. Johnson, Brad T. Cookson*

**Silencing of Ac45 Simultaneously Inhibits Osteoclast-Mediated Bone Resorption and Attenuates Dendritic Cell-Mediated Inflammation through Impairing Acidification and Cathepsin K Secretion** e00436-20

*Wenbin Yang, Zheng Zhu, Longjiang Li, Abigail McVicar, Ning Gao, Lin Wang, Yi-Ping Li, Wei Chen*

***Akkermansia muciniphila* and Its Pili-Like Protein Amuc\_1100 Modulate Macrophage Polarization in Experimental Periodontitis** e00500-20

*Hannah Mulhall, Jeanne M. DiChiara, Matthew Deragon, Radha Iyer, Olivier Huck, Salomon Amar*

***Escherichia coli* K12 Upregulates Programmed Cell Death Ligand 1 (PD-L1) Expression in Gamma Interferon-Sensitized Intestinal Epithelial Cells via the NF- $\kappa$ B Pathway** e00618-20

*Seul A. Lee, Yiming Wang, Fang Liu, Stephen M. Riordan, Lu Liu, Li Zhang*

**FUNGAL AND PARASITIC INFECTIONS**

**Lactic Acid Supplementation Increases Quantity and Quality of Gametocytes in *Plasmodium falciparum* Culture** e00635-20

*Rachel West, David J. Sullivan*

**Interleukin-8 Receptor 2 (IL-8R2)-Deficient Mice Are More Resistant to Pulmonary Coccidioidomycosis than Control Mice** e00883-19

*Aaron F. Carlin, Suganya Viriyakosol, Sharon Okamoto, Lorraine Walls, Joshua Fierer*

**MICROBIAL IMMUNITY AND VACCINES**

**Antibody Opsonization Enhances Early Interactions between *Yersinia pestis* and Neutrophils in the Skin and Draining Lymph Node in a Mouse Model of Bubonic Plague** e00061-20

*Jeffrey G. Shannon, B. Joseph Hinnebusch*

***Chlamydia*-Specific IgA Secretion in the Female Reproductive Tract Induced via Per-Oral Immunization Confers Protection against Primary *Chlamydia* Challenge** e00413-20  
*Nita Shilova, Savannah E. Howe, Besmir Hyseni, Deahneece Ridgell, Derek J. Fisher, Vjollca Konjufca*

**Efficient 5-OP-RU-Induced Enrichment of Mucosa-Associated Invariant T Cells in the Murine Lung Does Not Enhance Control of Aerosol *Mycobacterium tuberculosis* Infection** e00524-20  
*Charles Kyriakos Vorkas, Olivier Levy, Miroslav Skular, Kelin Li, Jeffrey Aubé, Michael S. Glickman*

**HOST-ASSOCIATED MICROBIAL COMMUNITIES**

**The Arg753Gln Polymorphism of Toll-Like Receptor 2 Has a Lower Occurrence in Patients with Syphilis, Suggesting Its Protective Effect in Czech and Slovak Individuals** e00503-20  
*Linda Grillová, Jana Musilová, Klára Janečková, Petra Pospíšilová, Ivana Kuklová, Vladana Woznicová, Hana Zákoucká, David Šmajš*