

EDITOR IN CHIEF (2021)

Thomas J. Silhavy
Princeton University, Princeton, N.J.

EDITORS

Anke Becker, *Editor* (2020)
*Philipps-Universität Marburg,
Marburg, Germany*

Yves V. Brun, *Editor* (2022)
Université de Montréal, Montréal, Canada

Laurie E. Comstock, *Editor* (2024)
*Brigham and Women's Hospital, Harvard
Medical School, Boston, Mass.*

Michael J. Federle, *Editor* (2023)
University of Illinois at Chicago, Chicago, Ill.

Michael Y. Galperin, *Editor* (2023)
National Institutes of Health, Bethesda, Md.

Tina M. Henkin, *Editor* (2024)
Ohio State University, Columbus, Ohio

Roberto Kolter, *Cover Editor* (2023)
Harvard Medical School, Boston, Mass.

William Margolin, *Minireview Editor* (2021)
*University of Texas Health Science Center,
Houston, Tex.*

William W. Metcalf, *Editor* (2021)
*University of Illinois at Urbana-Champaign,
Urbana, Ill.*

Conrad W. Mullineaux, *Editor* (2020)
Queen Mary University of London, London, U.K.

George A. O'Toole, *Editor* (2022)
*Geisel School of Medicine at Dartmouth,
Hanover, N.H.*

Ann M. Stock, *Editor* (2021)
Rutgers University, Piscataway, N.J.

Patrick D. Schloss, *Chairman, Journals
Committee*

Stefano Bertuzzi, *Chief Executive Officer*

Melissa Junior, *Director, Journals*

Rebecca L. Zwadyk, *Production Editor*

Jeff Herring, *Assistant Production Editor*

Heather Drought, *Editorial Coordinator*

EDITORIAL BOARD

Sarah Ades (2021)
Brian Akerley (2019)
Birgit E. Alber (2019)
Sonja Albers (2021)
Gladys Alexandre (2020)
Daniel Amador-Noguez (2021)
Irina Artsimovitch (2019)
Harujuki Atomi (2021)
Paul Babitzke (2021)
Melanie Barnett (2020)
Ivan Berg (2019)
Indranil Biswas (2019)
Thomas Bobik (2019)
Bob Bourret (2021)
Cara C. Boutte (2021)
Miriam Braunstein (2021)
Richard G. Brennan (2021)
Yana Bromberg (2020)
Wolfgang Buckel (2021)
Lori Burrows (2021)
Mark Buttner (2019)
Eric Cascales (2021)
Patricia Champion (2021)
Matthew Chapman (2020)
Laurie Comstock (2019)
Ciaran Condon (2021)
Michael M. Cox (2021)
Dean Crick (2020)
Sean Crosson (2021)
Andrew J. Darwin (2019)
Heran Darwin (2021)
Joseph Dillard (2019)
Alain C. Dufour (2021)
Paul Dunman (2019)
Gary Dunny (2021)
Jonathan Dworkin (2021)
Susan M. Egan (2019)
Patrick Eichenberger (2021)
Craig Ellermeier (2020)
Marie A. Elliot (2021)
Neil Fairweather (2020)
Mario Feldman (2020)
James Ferry (2021)
Alain Filloux (2021)
Steven E. Finkel (2021)
Katrina Forest (2019)
Sara Fortune (2020)
Nancy Freitag (2021)
Michael Glickman (2021)
Mark Gomelsky (2019)

Susan Gottesman (2021)
David Graham (2020)
Dennis Grogan (2021)
Angelika Gründling (2021)
John Gunn (2019)
Ted Hackstadt (2019)
Maria Hadjifrangiskou (2020)
Patrick Hallenbeck (2020)
Brian Hammer (2019)
Mark E. Hart (2021)
Graham Hatfull (2019)
David R. Hendrixson (2021)
Debbie Hinton (2020)
Paul Hoffman (2020)
Kou-San Ju (2021)
Daniel Kearns (2019)
Thomas Kehl-Fie (2020)
Cesar Khursigara (2019)
Michael Koomey (2021)
Tino Krell (2021)
Lee Kroos (2021)
Beth Lazazzera (2021)
Chia Y. Lee (2019)
Vincent Lee (2020)
Petra Levin (2020)
Joe Lutkenhaus (2020)
Michael Manson (2019)
Luciano Marraffini (2019)
Jyl Matson (2021)
Mark McBride (2021)
Shonna McBride (2021)
Linda McCarter (2021)
Stephen B. Melville (2021)
D. Scott Merrell (2021)
Tâm Mignot (2020)
Tohru Minamino (2020)
Dominique Missiakas (2019)
Donald Morrison (2021)
M. A. Motaleb (2021)
Michiko Nakano (2021)
Karen M. Otteman (2021)
Michael Otto (2021)
Marta Perego (2021)
Andreas Peschel (2020)
Gregory J. Phillips (2021)
Jacqueline Plumbbridge (2021)
David Popham (2021)
Tracy Raivio (2020)
Manjula Reddy (2020)
Anthony Richardson (2020)

Arne Rietsch (2021)
Charles Rock (2021)
Jung-Hye Roe (2019)
Roy Martin Roop (2021)
Wilma Ross (2020)
David Rudner (2020)
Natividad Ruiz (2020)
Maria Sandkvist (2019)
Brian Scharf (2020)
Mark A. Schembri (2021)
Michael Schurr (2019)
Kimberley Seed (2021)
Peter Setlow (2021)
Feng Shao (2020)
Aimee Shen (2020)
Lyle Simmons (2020)
Eric Skaar (2019)
Holger Sondermann (2021)
Vanessa Sperandio (2020)
Stephen Spiro (2019)
Eric Stabb (2021)
Nicola Stanley-Wall (2021)
George C. Stewart (2021)
Jörg Stülke (2019)
Rita Tamayo (2019)
Teresa Thiel (2019)
Hung Ton-That (2020)
Renée Tsolis (2020)
Raphael Valdivia (2019)
Cari Vanderpool (2019)
Karen L. Visick (2021)
Waldemar Vollmer (2019)
Daniel M. Wall (2021)
Jue D. Wang (2021)
Karen M. Wassarman (2019)
Chris Waters (2020)
David Weiss (2019)
Marvin Whiteley (2019)
Annegret Wilde (2021)
Malcolm Winkler (2019)
Jeffrey H. Withey (2021)
Matthew Wolfgang (2020)
Daniel J. Wozniak (2021)
Timothy Yahr (2020)
Kevin Young (2019)
Thomas Zahrt (2020)
Cheng-Cai Zhang (2019)
Jun Zhu (2020)
Peter Zuber (2021)
Wolfram R. Zückert (2021)

The *Journal of Bacteriology* (ISSN 1098-5530), a publication of the American Society for Microbiology (ASM), 1752 N St., N.W., Washington, DC 20036-2904, is devoted to the advancement and dissemination of fundamental knowledge concerning bacteria and other microorganisms.

The *Journal of Bacteriology* became an online-only journal with Volume 198, Issue 1 (January 2016). The final print issue was Volume 197, Issue 24 (December 2015). Previous print ISSN: 0021-9193.

Instructions to Authors are updated throughout the year. The current version is available on the journal website. The *Journal of Bacteriology* is published twice monthly, one volume per year. For subscription prices, contact the Subscriptions Unit, ASM (asmjournals@subscriptionoffice.com). Correspondence relating to reprint orders should be directed to ASM Author Services (ASM.AuthorServicesSupport@cenveo.com), and correspondence relating to disposition of submitted manuscripts, proofs, and general editorial matters should be directed to the Journals Department, American Society for Microbiology, 1752 N St., N.W., Washington, DC 20036-2904. Phone: (202) 737-3600 (see <https://journals.asm.org/content/contact-us>). ASM policies for permissions, commercial reprints, and ePrints can be found at <https://journals.asm.org/content/permissions>.

CODEN:JOBAAY

doi:10.1128/JB.masthead.201-19

Copyright © 2019 American Society for Microbiology. All Rights Reserved.