CANCER IMMUNOLOGY RESEARCH

Illuminating the Interplay of Cancer and the Immune System

Editor-in-Chief
Robert D. Schreiber

Editor-in-Chief
Philip D. Greenberg

Deputy Editors
James P. Allison
Glenn Dranoff
Elizabeth M. Jaffee
Robert H. Vonderheide

Senior Editors
Maxim N. Artyomov
Nina Bhardwaj
Vincenzo Bronte
Christine E. Brown
Xuetao Cao
Marco Colonna
Lisa M. Coussens
Sandor Demaria
Olvera J. Finn
Lawrence H. Fong
Nir Hacohen
F. Stephen Hodi
Stephen C. Jameson
Carl H. June
Lewis L. Lanier
Alberto Mantovani
Cornelia J.M. Melief
Evan Newell
Ellen Puré
Padmanee Sharma

Hiroshi Shiku
Mark J. Smyth
Pramod K. Srivastava
Cornelia L. Trimble
Benoit J. Van den Eynde
Jennifer A. Wargo
Louis M. Weiner

Biostatistics Editor
Rosemarie Mick

Editorial Staff
Senior Associate Editor
Karen Honey

Associate Editor
Adriana D. Benavides

Managing Editor
Jason S. Woodson

Editorial Associate
Brittany Rubio

Special Content Manager
Chris Vesci

Senior Production Project Editor
Corinne Mooney

Editorial Board
Jean-Pierre Abastado
Gregory P. Adams
Gosse J. Adema
Steven M. Alldada
Frances R. Balkwill
Robert J. Binder
Renier Brentjens
Joshua Brody
Steven Burakoff
William E. Carson
Adelheid Cerwenka
Lieeping Chen
Mario P. Colombo
George Coukos
Tanja D. de Gruijl
Michele De Palma
I. Jolanda de Vries
Reno Debets
Nora L. Disis

In collaboration with the Cancer Research Institute

Editorial Office: Cancer Immunology Research [ISSN: 2326-6066 (Print); ISSN: 2326-6074 (Online)] is published monthly, one volume per year, by the American Association for Cancer Research, Inc.; 615 Chestnut Street, 17th Floor, Philadelphia, PA 19106-4404. Periodicals postage paid at Philadelphia, PA, and additional mailing offices. POSTMASTER: Send address changes to Cancer Immunology Research, AACR Member Services, 615 Chestnut St., 17th Floor, Philadelphia, PA 19106-4404 or E-mail: membership@aacr.org. Copyright 2021 by the American Association for Cancer Research, Inc. © The paper used in this publication meets the requirements of ANSI/ISO Z39.48-1992 (Permanence of Paper).
Editorial Board (continued)

Charles G. Drake
Edgar G. Engleman
Dean W. Felsher
Robert L. Ferris
Soldano Ferrone
Ian H. Frazer
Gordon J. Freeman
Alan B. Frey
Wolf H. Fridman
Yang-Xin Fu
Dmitry I. Gabrilovich
Luca Gattinoni
Eli Gilboa
Sacha Gnjatic
Naoto Hirano
Yuhui Huang
Patrick Hwu
Darrell Irvine
Masahisa Jinushi
Yutaka Kawakami
Khashayarsha Khazaie
Alexander Knuth
Vijay Kuchroo
Peter P. Lee
Haifan Liu
Ignacio Melero
Miriam Merad
Jeffrey S. Miller
James J. Mulé
David H. Munn
Hiroyoshi Nishikawa
Kunle Odunsi
Pamela S. Ohashi
Suzanne Ostrand-Rosenberg
Karolina Palucka
Drew M. Pardoll
Mikael J. Pittet
Scott K. Pruitt
Gabriel A. Rabinovich
David H. Raulet
Nicholas P. Restifo
Cliona M. Rooney
Alexander Y. Rudensky
Michel Sadelain
Ugur Sahin
Shimon Sakaguchi
John H. Sampson
Noriyuki Sato
Michael Schmitt
Charles L. Sentman
Arlene Sharpe
Michail Sitkovsky
Craig L. Slingluff
Mark X. Slivkowsk
Eduardo M. Sotomayor
Daniel E. Speiser
Melody A. Swartz
Mario Sznol
Hideaki Tahara
Giorgio Trinchieri
Shannon J. Turley
Sjoerd H. van der Burg
Richard G. Vile
Eric Vivier
Irving L. Weissman
E. John Wherry
Kai W. Wucherpfennig
Cassian Yee
Weiping Zou
CANCER IMMUNOLOGY RESEARCH

Publishing Information

Scope
Cancer Immunology Research publishes outstanding original articles reporting major advances that span the discipline of cancer immunology, from basic investigations of host–tumor interactions to developmental therapeutics in model systems, early translational studies in patients, and in-depth analysis of late-stage clinical trials. The journal also publishes reviews and opinion pieces of broad significance across the spectrum of cancer immunology research. As the premier resource for disseminating knowledge of immunology to the cancer research community, the journal catalyzes cross-disciplinary work that yields a deeper understanding of the host–tumor relationship, more potent cancer treatments, and improved clinical outcomes.

Cancer Immunology Research is abstracted and/or indexed in Current Contents/Clinical Medicine, MEDLINE, Science Citation Index, Scopus, and Web of Science.

Submission of Manuscripts
Online manuscript submission is welcomed at https://cancerimmunolres.aacrjournals.org. Before submitting a manuscript, please read the Instructions for Authors, which is available from the journal's home page at https://cancerimmunolres.aacrjournals.org.

Presubmission inquiries are welcomed. For instructions on sending a presubmission inquiry to the journal, please visit the About the Journal page at https://cancerimmunolres.aacrjournals.org/misc/about.shtml.

Publication Charges
Articles will be published with the understanding that the author(s) will pay both a publication fee plus a display item fee. For more detail, please see the Publication Fees and Reprints page which is available at https://cancerimmunolres.aacrjournals.org/content/authors/publication-fees-and-reprints.

Subscription Information
AACR Members
AACR members may opt to receive either a print subscription with online access to content or an online-only subscription. Contact membership@aacr.org or visit the membership page at https://aacr.org for more information.

Nonmember Individuals
Subscriptions include online access only. Contacts listed below are for nonmember individual subscriptions.

USA and Rest of World (excluding Japan)
American Association for Cancer Research, 615 Chestnut Street, Philadelphia, PA 19106; 1-855-744-4667; pubsales@aacr.org

Japan
e-support@maruzen.co.jp; journal@kinokuniya.co.jp; usaco@usaco.co.jp

Site Licenses
For information about institutional site licenses, contact pubsales@aacr.org.

Single Issue Sales/Claims
Due to the impact of COVID-19, the AACR has discontinued single issue orders and fulfillment of claims through December 31, 2021.

Advertising Information
For information about advertising in AACR journals, contact The Walchli Tauber Group, Inc., 2225 Old Emmorton Road, Suite 201, Bel Air, MD 21015; 443-512-8899; maura.paoletti@wt-group.com.

Copyright and Permissions
Content printed in or disseminated by Cancer Immunology Research is protected by copyright. Authors publishing in Cancer Immunology Research may either formally transfer copyright to the AACR or may select the Open Access option and publish the article under one of two Creative Commons Attribution licenses – Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0) or Attribution 4.0 International (CC BY 4.0) – depending on funder requirements. Please visit https://aacrjournals.org/content/authors/copyright-permissions-and-access.