

# Molecular Cancer Therapeutics

*The Journal of Cancer Drug Discovery & Preclinical Development*

# AACR

American Association  
for Cancer Research

AN OFFICIAL JOURNAL OF THE AMERICAN ASSOCIATION FOR CANCER RESEARCH

## Editor-in-Chief

**Napoleone Ferrara**

## Deputy Editor

Stephen W. Fesik  
Paul Workman

## Senior Editors

Ian Collins  
Giulio F. Draetta  
Simone Fulda  
Peter J. Houghton  
Candace S. Johnson  
Ricky W. Johnstone  
Razelle Kurzrock  
John S. Lazo  
Guillermina Lozano  
Brion W. Murray  
Martine F. Roussel  
Michael J. Sailor  
Peter Senter  
Beverly A. Teicher  
Giorgio Trinchieri

## Editorial Board

Robert T. Abraham	Marcia I. Dawson	Lorraine J. Gudas	Pier Paolo Pandolfi
Rajesh Agarwal	William A. Denny	Stephen B. Howell	Ira Pastan
Adriana Albini	Paul Dent	Rakesh K. Jain	Maurizio Pellecchia
Kari Alitalo	Channing J. Der	Peter A. Jones	Yves Pommier
Suresh V. Ambudkar	Vishva M. Dixit	Craig T. Jordan	C. Patrick Reynolds
Paul A. Andrews	Ethan Dmitrovsky	Juliane M. Jürgensmeier	Edward A. Sausville
Avi Ashkenazi	Suzanne A. Eccles	Robert S. Kerbel	Jeffrey Settleman
André S. Bachmann	Heinz-Herbert Fiebig	Donald W. Kufe	Shivendra V. Singh
Rebecca G. Bagley	William D. Figg, Sr.	Michihiko Kuwano	David B. Solit
Albert S. Baldwin, Jr.	Paul B. Fisher	Daruka Mahadevan	Michael B. Sporn
Laura E. Benjamin	Antonio Fojo	Sridhar Mani	Bin Tean Teh
Darell D. Bigner	Arthur E. Frankel	Lawrence D. Mayer	Beverly A. Teicher
Michael L. Bittner	Stephen V. Frye	David J. McConkey	Carter Van Waes
Thomas F. Bumol	Susan M. Galbraith	Frank McCormick	Kristiina Vuori
Robert M. Campbell	Ram N. Ganapathi	Giovanni Melillo	Shaomeng Wang
David A. Cheresh	Michelle D. Garrett	Ira Mellman	David J. Waxman
James G. Christensen	Andreas J. Gescher	Paul S. Mischel	Tai Wai Wong
Steve R. Coats	David A. Gewirtz	Brett P. Monia	Amy E. Wright
Barbara A. Conley	Amato J. Giaccia	Robert A. Newman	Leigh S. Zawal
Robert A. Copeland	I. David Goldman	Barry R. O'Keefe	Yuesheng Zhang
Sayed S. Daoud	Michael M. Gottesman		

**AACR Officers**

Nancy E. Davidson, President  
Michael A. Caligiuri, President-Elect  
José Baselga, Past President  
William N. Hait, Treasurer  
Margaret Foti, Chief Executive  
Officer

**Publications  
Committee**

Mary Helen Barcellos-Hoff  
Alberto Bardelli  
Dafna Bar-Sagi  
Michael E. Berens  
René Bernards  
John D. Carpten  
Frederic J. de Sauvage  
Sanjiv Sam Gambhir  
Levi A. Garraway, Chairperson  
Maura L. Gillison  
Elizabeth M. Jaffee  
Pasi A. Jänne  
Roy A. Jensen  
Jonathan D. Licht  
Steffi Oesterreich  
William Pao  
Helen M. Piwnicka-Worms  
Charles W.M. Roberts  
Lillian L. Siu  
David B. Solit  
Saraswati V. Sukumar  
Toshikazu Ushijima  
Victor E. Velculescu

**Publishing Staff****Publisher**

Christine B. Rullo

**Director of Journal  
Operations and Systems**

Daniel S. Evanko

**Associate Managing Editor**

Gregory Pavlovcak

**Associate Editor**

Jiping Zhang

**Associate Journal Manager**

Crystal Cheepudom

**Editorial Staff**

Ashley Pfeiffer

Meredith A. Kahn

**Associate Director,  
Production**

Charlene Squibb

**Senior Production Editor**

Kristin D. Murray

**Director, Electronic  
Publishing**

Robert Spanier

**Associate Director,  
Sales and Marketing**

Nicola L. Hill

**Assistant Director,  
Institutional Sales &  
Outreach**

Karola Rac

**Marketing and Creative  
Services****Director**

Paul Driscoll

**Design Staff**

Susan Moore

**Scope**

*Molecular Cancer Therapeutics* strives to be the top choice for publishing the best science in the discovery and preclinical development of novel therapeutic agents for oncology, preclinical studies of approved therapeutics, mechanisms of drug action, mechanisms of drug resistance, biomarkers of drug response, novel models and technologies, and occasional drug toxicity mechanisms. While the Journal's main focus is on small molecule and protein drugs, other molecular entities may be considered.

*Molecular Cancer Therapeutics* 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 <http://mct.msubmit.net>. Before submitting a manuscript, please read the Instructions for Authors, which is available from the Journal's home page at <http://mct.aacrjournals.org>.

**Publication Charges**

Beginning with manuscripts submitted January 1, 2016 or after, articles will be published with the understanding that the author(s) will pay both a publication fee plus a color figure handling fee. Please see the Instructions for Authors, which are available from the Journal's home page at <http://mct.aacrjournals.org>.

**Subscription Information****Nonmember Individuals**

Subscriptions include print version with online access. 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](mailto:pubsales@aacr.org)

**Japan**

[e-support@maruzen.co.jp](mailto:e-support@maruzen.co.jp); [journal@kinokuniya.co.jp](mailto:journal@kinokuniya.co.jp); [usaco@usaco.co.jp](mailto:usaco@usaco.co.jp)

International print subscriptions include cost of surface mail. Expedited mailing is available. Contact the American Association for Cancer Research for rates.

**Site Licenses**

For information about institutional site licenses, contact [pubsales@aacr.org](mailto:pubsales@aacr.org).

**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](mailto:membership@aacr.org) or visit the membership page at [www.aacr.org](http://www.aacr.org) for more information.

**Single Issue Sales**

Subject to their availability, single or back issues may be purchased for \$60 (U.S.) or \$65 (outside the U.S.) each. The cost must be prepaid. Contact [pubsales@aacr.org](mailto:pubsales@aacr.org).

**Claims**

One-time claims for missing issues made within 120 days of the issue's publication will be honored, subject to availability. No credit or refund will be given if an issue is out of print at the time of claim.

**AACR Members**

[membership@aacr.org](mailto:membership@aacr.org)

**Nonmembers and Institutions**

[pubsales@aacr.org](mailto:pubsales@aacr.org)

**Advertising Information**

For information about advertising in AACR journals, contact Pharmaceutical Media Inc., 30 East 33rd St., 4th Floor, NY, NY, 10016; 212-904-0374; [Mperlowitz@pminy.com](mailto:Mperlowitz@pminy.com).

**Copyright and Permissions**

Content printed in or disseminated by *Molecular Cancer Therapeutics* is protected by copyright. Authors who wish to publish material in *Molecular Cancer Therapeutics* must formally transfer copyright to the AACR. All authors must sign copyright transfer forms before the AACR can proceed with publication.

To read the complete AACR Copyright and Permissions Policy, visit [www.aacrjournals.org/site/InstrAuthors/ifora.xhtml#copyrightpermissions](http://www.aacrjournals.org/site/InstrAuthors/ifora.xhtml#copyrightpermissions).