

# 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 Editors

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      | Sayed S. Daoud       | Michael M. Gottesman    | Barry R. O'Keefe    |
| Rajesh Agarwal         | Marcia I. Dawson     | Lorraine J. Gudas       | Pier Paolo Pandolfi |
| Adriana Albini         | William A. Denny     | Stephen B. Howell       | Ira Pastan          |
| Kari Alitalo           | Paul Dent            | Rakesh K. Jain          | Maurizio Pellecchia |
| Suresh V. Ambudkar     | Channing J. Der      | Peter A. Jones          | Yves Pommier        |
| Paul A. Andrews        | Vishva M. Dixit      | Craig T. Jordan         | C. Patrick Reynolds |
| Avi Ashkenazi          | Ethan Dmitrovsky     | Juliane M. Jürgensmeier | Edward A. Sausville |
| André S. Bachmann      | Suzanne A. Eccles    | Robert S. Kerbel        | Jeffrey Settleman   |
| Raffaele Baffa         | 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. Zavel      |
| Robert A. Copeland     | I. David Goldman     |                         | Yuesheng Zhang      |

## 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. Piwnica-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

**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**  
Jennifer L. Harper

**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, New York, NY 10016; 212-904-0360; [Dsimone@pminy.com](mailto:Dsimone@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).