Guide to Authors

AIMS AND SCOPE OF THE JOURNAL

Nature Chemical Biology is an international monthly journal that provides a high-visibility forum for the publication of top-tier original research and commentary for the chemical biology community. Chemical biology combines the scientific ideas and approaches of chemistry, biology and allied disciplines to understand and manipulate biological systems with molecular precision. The journal publishes papers from the expanding community of chemical biologists, including contributions from chemists who are applying the principles and tools of chemistry to biological questions and from biologists who are interested in understanding and controlling biological processes at the molecular level.

We give priority to studies that report significant conceptual or practical advances in any area where chemistry and biology intersect. The journal is primarily interested in basic research, especially those studies that report new chemical or biological tools or present significant new molecular-level insights into the mechanisms underpinning biological processes. Additionally, because chemical biology approaches have broad utility for manipulating or engineering biological systems, the journal also considers manuscripts describing applied molecular studies at the chemistry-biology interface. Independent of the scientific area, we seek manuscripts that blend chemistry and biology in new ways, particularly those that provide major conceptual or methodological advances that are likely to open up innovative avenues of research in the field. The journal strives for a fair but comprehensive review process that emphasizes rigorous chemical and biological characterization.

In addition to publishing original research, Nature Chemical Biology is a forum for the exchange of ideas between scientists in the chemical and life sciences and a community resource for this emerging field. To this end, we publish content including scholarly reviews and perspectives, highlights of research published in our pages and in other journals, correspondence and commentaries that present topics of scientific and community interest.

EDITORIAL PROCESS

The overview of the journal’s manuscript decision process includes submission, editorial decision on whether the paper should be reviewed, peer review, decisions after review, revision, acceptance in principle, final submission and acceptance, proofs, advance online publication, and print publication. Before submitting a paper, authors should consult our editorial policies as well as technical tips for using our online submission system.

Please also consult our general guide for manuscript preparation and submission, which includes information on article formats, journal style, and figure preparation tips. Note that procedures for initial submission, revision, and final submission are slightly different, so please consult the directions before proceeding to the online submission system. Presubmission inquiries are not a prerequisite for the regular submission process, but are intended as a mechanism for authors to receive rapid feedback on whether a manuscript in preparation is likely to be of interest to the journal. We encourage authors who have already prepared their manuscripts to bypass the presubmission inquiry process and upload their papers as a regular submission to the journal.

Journals in the Nature family no longer take copyright on the primary research articles we publish. Instead we ask authors to sign a license for us to publish their work. US government employees sign a different license.

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Like the other Nature titles, Nature Chemical Biology has no external editorial board. Instead, all editorial decisions are made by a team of full-time professional editors, who are PhD-level chemists and biologists. For information on their research backgrounds and scientific interests, see About the Editors at http://www.nature.com/nchembio/about/about_eds/index.html.

Full contact information for the journal can be found here.

RELATIONSHIP TO OTHER NATURE JOURNALS

Nature Chemical Biology is editorially independent, and its editors make their own decisions, independent of the other Nature journals. If a paper is rejected from one Nature journal, the authors can use an automated manuscript transfer service to submit the paper to another Nature journal via a link sent to them by the editor handling the manuscript. Authors should note that referees’ comments (including any confidential comments to the editor) and identities are transferred to the editor of the second journal along with the manuscript. In that case, the journal editors will take the previous reviews into account when making their decision, although in some cases the editors may choose to take advice from additional or alternative referees. Alternatively, authors may choose to request a fresh review, in which case they should not use the automated transfer link, and the editors will evaluate the paper without reference to the previous review process. More details are available on the manuscript transfer service at http://www.nature.com/authors/author_services/transfer_manuscripts.html and on the relationships between Nature titles at http://www.nature.com/authors/about_nature_family.html.

EDITORIAL AND PUBLISHING POLICIES

Please see authors & referees at http://www.nature.com/authors/index.html for detailed information about author and referee services and publication policies at the Nature family of journals. The Nature journals, including Nature Chemical Biology, share a number of common policies including the following:

- Author responsibilities
- License agreement and author copyright
- Compliance with open access mandates
- Embargo policy and press releases
- Use of experimental animals and human subjects
- Competing financial interests
- Availability of materials and data
COMMUNICATIONS have no more than 3 display items (figures and/or tables). References are limited to 25. Article titles are omitted from the reference list. Brief Communications include an Online Methods section. Brief Communications include received/accepted dates and may be accompanied by supplementary information. Brief Communications are peer reviewed, and authors must provide a competing financial interests statement before publication.

An Article is a substantial research study of high quality and general interest to the chemical biology community. Articles are generally 4–8 printed journal pages. The main text (not including abstract, Online Methods, references and figure legends) is typically no more than 4,000 words. The abstract is no more than 150 words and may not contain references. Articles typically have up to 6 display items (figures and/or tables). An introduction is followed by sections headed Results, Discussion and Online Methods. The Results and Online Methods should be divided by topical subheadings; the Discussion should be succinct and may not contain subheadings. References are limited to 50. Articles include received/accepted dates and may be accompanied by supplementary information. Articles are peer reviewed, and authors must provide a competing financial interests statement before publication.

OTHER FORMATS

Commentary articles focus on policy, science and society or purely scientific issues related to chemical biology. They should be of immediate interest to a broad readership and should be written in an accessible, nontechnical style. Commentaries are approximately 2,000–3,000 words and typically occupy 3–4 printed journal pages. These pieces generally contain 2–3 display items (figures, tables and/or boxes) and up to 25 references. Article titles are omitted from the reference list. Commentaries may not contain primary research data, although they may present sociological data (funding trends, demographics, bibliographic data, etc.). Commentaries may be peer reviewed at the editor’s discretion and do not include received/accepted dates. Authors must provide a competing financial interests statement before publication.

The Books & Arts section of Nature Chemical Biology publishes timely reviews of books and other technological or cultural resources of interest to chemical biologists; the section also runs comment pieces on trends in these areas. These pieces are generally limited to one page in the journal. Articles in this section are commissioned, and unsolicited contributions are not accepted.

Books & Arts pieces are not peer reviewed and do not contain received/accepted dates. Authors must provide a competing financial interests statement before publication.

News and Views are by prior arrangement only. They may be linked to articles in Nature Chemical Biology, or they may focus on papers of
exceptional contributions will not normally be considered, prospective authors may propose topics. News and Views are not peer reviewed, but undergo editing in consultation with the editorial team. Authors must provide a competing financial interests statement before publication.

A Review is an authoritative, balanced and scholarly survey of recent developments in a research field. Although reviews should be recognized as scholarly by specialists in the field, they should be written with a view to informing nonspecialist readers. Thus, Reviews should be presented using simple prose, avoiding excessive jargon and technical detail. Reviews typically occupy 8–10 pages in the printed journal and begin with a 150-word abstract written for a general audience. The main text is approximately 4,000–5,000 words. Reviews typically include 6–8 display items (figures, tables and/or boxes). Because references are limited to 100, citations should be selective. In the case of particularly important studies (≤10% of all the references), we encourage authors to provide short annotations explaining why these are key contributions. The scope of a Review should be broad enough that it is not dominated by the work of a single laboratory, and particularly not by the authors’ own work. Unpublished primary research data are not permitted in Reviews.

Reviews include received/accepted dates. Reviews are always peer reviewed to ensure factual accuracy, appropriate citations and scholarly balance, and they are edited in consultation with the editorial team. Authors must provide a competing financial interests statement before publication.

Perspectives are a second format for scholarly reviews and discussions of the primary research literature. Perspectives differ from Reviews and Commentaries in that they frequently present a focused review of a rapidly moving area of science. They also may advocate a controversial position or present a speculative hypothesis. Two reviews advocating opposite sides in a research controversy are normally published as Perspectives. Perspectives are usually 8–10 printed journal pages. Perspectives include a 150-word abstract written for a general audience, a main text of 4,000–5,000 words and 6–8 display items (figures, tables and/or boxes). References are limited to 100. Unpublished primary research data are not permitted in Perspectives.

Perspectives include received/accepted dates. Perspectives are always peer reviewed to ensure factual accuracy and appropriate citations, and they are edited in consultation with the editor. Authors must provide a competing financial interests statement before publication.

HOW TO SUBMIT

ONLINE SUBMISSION
We strongly prefer to receive manuscripts via our online submission system. Using this system, authors can upload manuscript files (text, figures and supplementary information, including video) directly to our office and check on the status of their manuscripts during the review process. In addition, reviewers can access the manuscript over a direct Internet link, which speeds the review process and maintains referee anonymity. Please consult our technical information on file formats and tips for using the system effectively. Revisions, including manuscripts submitted after a presubmission inquiry, should be uploaded via the link provided in the editor’s decision letter. Please do not submit revisions as new manuscripts.

SUBMISSION POLICIES
Submission to Nature Chemical Biology is taken to imply that there is no significant overlap between the submitted manuscript and any other papers from the same authors under consideration or in press elsewhere (abstracts or unreviewed web preprints do not compromise novelty). The authors must include copies of all related manuscripts with any overlap in authorship that are under consideration or in press elsewhere. If a related manuscript is submitted elsewhere while the manuscript is under consideration at Nature Chemical Biology, a copy of the related manuscript should be sent to the editor.

The primary affiliation for each author should be the institution at which the majority of their work was done. If an author has subsequently moved, the current address may also be stated.

If the manuscript includes personal communications, please provide a written statement of permission from any person who is quoted. E-mail permission messages are acceptable.

For bioinformatics manuscripts, please send four copies of a CD containing any new algorithms for data analysis along with other resources necessary to use the algorithm, such as the user manual or spreadsheets. The CDs should be mailed to Nature Chemical Biology, 25 First Street, Suite 104, Cambridge, MA 02141, USA.

For further information on the review process and how editors make decisions please see the manuscript decisions page.

Nature Chemical Biology strives to publish papers that will be of interest to chemical biologists with diverse research interests. Thus it is essential that all manuscripts are accessible to nonspecialists. Manuscripts are subject to substantial editing, in consultation with authors, to achieve this goal. After acceptance, a copy editor may make further changes so that the text and figures are readable and clear to those outside the field, and so that papers conform to our style. Contributors are sent proofs and are welcome to discuss proposed changes with the editors, but Nature Chemical Biology reserves the right to make the final decision about matters of style and the size of figures.

The editors also reserve the right to reject a paper even after it has been accepted if it becomes apparent that there are serious problems with the scientific content or with violations of our publishing policies.

Additional editorial policies can be found on the Nature journals joint policies page (http://www.nature.com/authors/editorial_policies/index.html). This page includes information on manuscripts reviewed at other Nature journals, competing financial interests declarations, pre-publication publicity, deposition of data as a condition of publication, availability of data and reagents after publication, human and animal subjects, digital image integrity, biosecurity, refutations and complaints, correction of mistakes in the journal, duplicate publication, confidentiality and plagiarism.

Submission of a signed competing financial interests statement is required for all content of the journal. This statement will be published at the end of all papers, whether or not a competing financial interest is reported. In cases where the authors declare a competing financial interest, a short statement to that effect is published at the end of article, which is linked to a more detailed version available online.

COSTS
There is a charge of $620 for the first color figure and $310 for each additional color figure. Otherwise, there are no submission fees or page charges.

ADVANCE ONLINE PUBLICATION
Nature Chemical Biology provides Advance Online Publication (AOP) of Brief Communications and Articles, which benefits authors with an earlier publication date and allows our readers access to accepted papers before they appear in print. Note that papers published online are definitive and may be altered only through the publication of a print corrigendum or erratum, so authors should make every effort to ensure
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COVERS AND OTHER ARTWORK

Authors of accepted papers are encouraged to submit images for consideration as a cover. Cover images normally are linked to a specific paper in that issue, but we may also be able to use other images elsewhere in the journal. Illustrations are selected for their scientific interest and aesthetic appeal. Please send electronic files and include a clear and concise legend explaining the image.

GRAPHICAL ABSTRACT

A Graphical Abstract, which summarizes the manuscript in a visual way, is designed to attract the attention of readers in the table of contents of the journal. Graphical abstracts are published with the following content items: Brief Communications, Articles, Reviews and Perspectives. The Graphical Abstract may contain chemical structures or images. Textual statements should be kept to a minimum. Color figures are encouraged and will be published at no additional charge. The image must be sized to fit in a rectangle of dimensions 9 cm wide × 4 cm high. The graphic should be submitted as a single file using a standard file format (see below) and will be published in the Table of Contents in print and online. All Graphical Abstracts should be submitted with a white background and imagery should fill the available width, whenever possible. Please see figure guidelines for resolution requirements.

PREPARING THE MANUSCRIPT

Nature Chemical Biology is read by scientists from diverse backgrounds including chemists and biologists. In addition, many are not native English speakers. Authors should therefore give careful thought to how their findings may be communicated clearly. Although a shared basic knowledge of biological and chemical sciences may be assumed, please bear in mind that the language and concepts that are standard in one subfield may be unfamiliar to nonspecialists. Thus, technical jargon should be avoided as much as possible and clearly explained where its use is unavoidable. Abbreviations, particularly those that are not standard, should also be kept to a minimum. Chemical abbreviations should be defined in the text or legends at their first occurrence, and abbreviations should be used thereafter. The background, rationale and main conclusions of the study should be clearly explained. Titles and abstracts in particular should be written in language that will be readily intelligible to any scientist. We strongly recommend that authors ask a colleague with different expertise to review the manuscript before submission, in order to identify concepts and terminology that may present difficulties to nonspecialist readers.

The journal’s format requirements are described below.

Cover Letter

Authors should provide a cover letter that includes the affiliation and contact information for the corresponding author. Authors should briefly discuss the work’s importance and explain why the work is considered appropriate for the diverse readership of Nature Chemical Biology. Authors are asked to provide the names and contact information for qualified scientific reviewers and may request the exclusion of certain referees. Authors should indicate whether they have had any prior discussions with a particular Nature Chemical Biology editor about the work described in the manuscript so that the manuscript may be assigned appropriately.

Manuscript Text

The manuscript text should be submitted in a single word processing file (such as Microsoft Word); figures are provided in individual files (see below). The manuscript text file should include, in the following order: a title page with author affiliations and contact information, the sections required for each content type (see information for Brief Communications and Articles), Acknowledgments (optional), Author Contributions, Competing Financial Interests Statement, figure legends, tables, Online Methods and references. Nature Chemical Biology does not use word processing manuscript templates. Thus, the manuscript file should be formatted as double-spaced, single-column text with left justification. Pages should be numbered using an Arabic numeral in the footer of each page. Please use American English spelling throughout. Standard fonts are recommended and “Symbol” font should be used for representing Greek characters and for symbols such as ±, × (times), and ° (deg). The corresponding author(s) should be identified with an asterisk (*).

Methods. The Methods section should be written as concisely as possible but should contain all elements necessary to allow interpretation and replication of the results. The Methods sections of all original research papers will appear in all online versions of the article. Authors can deposit the step-by-step protocols used in their study to Protocol Exchange, an open resource maintained by NPG. Protocols deposited by the authors will be linked to the Online Methods section upon publication.

The Methods section should be subdivided by short bold headings referring to methods used and we encourage the inclusion of specific subsections for statistics, reagents and animal models. If further references are included in this section, the numbering should continue from the end of the last reference number in the rest of the paper and the list should accompany the additional Methods at the end of the paper.

Synthetic protocols. Experimental protocols that describe the synthesis of new compounds should be included. The systematic name of the compound and its bold, Arabic numeral are used as the heading for the experimental protocol. Thereafter, the compound is represented by its assigned bold numeral. Authors should describe the experimental protocol in detail, referring to amounts of reagents in parentheses, when possible (e.g., 1.03 g, 0.100 mmol). Standard abbreviations for reagents and solvents are encouraged. Safety hazards posed by reagents or protocols should be identified clearly. Isolated mass and percent yields should be reported at the end of each protocol.

Acknowledgments should be brief, and should not include thanks to anonymous referees and editors, or effusive comments. Grant or contribution numbers may be acknowledged. Nature Chemical Biology requires an Author Contribution statement as described in the Authorship section of our joint Editorial policies.

References are numbered sequentially as they appear in the text. References in the figure legends are numbered in sequence after those in the main text, followed by references in tables and finally references in boxes. Only one publication is given for each number. Only papers that have been published or accepted by a named publication should be in the numbered list; preprints of accepted papers in the reference list should be submitted with the manuscript. Meeting abstracts that have been published or accepted by a named publication should be mentioned in the text with a list of authors (or initials if any of the authors are coauthors of the present contribution). URLs for web sites and personal communications should be cited parenthetically in the text, not in the reference list. Grant details and acknowledgments are not permitted as numbered references. Footnotes are not used.
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Figure legends begin with a brief title sentence for the whole figure and continue with a short description of each panel and the symbols used, focusing on describing what is shown in the figure and de-emphasizing methodological details. Each legend should total no more than 250 words.

Tables. Please submit tables in Word format at the end of your text document. Tables that include statistical analysis of data should describe their standards of error analysis and ranges in a table legend.

Equations. Equations and mathematical expressions should be provided in the main text of the paper and will be inserted as figures during manuscript production. Equations are identified by parenthetical numbers, such as (1), and are referred to in the manuscript as “equation (1).”

PREPARING FIGURES
Figures should be numbered separately with Arabic numerals in the order of occurrence in the text of the manuscript. When appropriate, figures should include error bars. A description of the statistical treatment of error analysis should be included in the figure legend.

Authors are responsible for obtaining permission to publish any figures or illustrations that are protected by copyright, including figures published elsewhere and pictures taken by professional photographers. The journal cannot publish images downloaded from the internet without appropriate permission.

Figures should be uploaded upon submission via our online submission system, in one of our preferred formats. Please use the smallest file size that provides sufficient resolution, preferably less than 1 MB, so that referees do not have to download extremely large files. When a paper is accepted, the editors will request high-resolution files suitable for publication.

Figure lettering should be in Helvetica or Arial; if possible, the same typeface in approximately the same font size should be used for all figures in a paper. Use Symbol font for Greek letters. All display items should be on a white background, and should avoid excessive boxing, unnecessary color, spurious decorative effects (such as three-dimensional ‘skyscraper’ histograms) and highly pixelated computer drawings. The vertical axis of histograms should not be truncated to exaggerate small differences. Labeling must be of sufficient size and contrast to be readable, even after appropriate reduction. The thinnest lines in the final figure should be no smaller than one point wide. Reasonable requests to enlarge figures will be considered, but editors will make the final decision on figure size. Authors will see a proof of figures.

Figures divided into parts should be labeled with a lower-case, bold ‘a’, ‘b’, and so on, in the same type size as used elsewhere in the figure. Lettering in figures should be in lower-case type, with only the first letter of each label capitalized. Units should have a single space between the number and the unit, and follow SI nomenclature (for example, ms rather than msec) or the nomenclature common to a particular field. Thousands should be separated by commas (1,000). Unusual units or abbreviations should be spelled out in full or defined in the legend. Scale bars should be used rather than magnification factors, with the length of the bar defined in the legend rather than on the bar itself.

Authors are encouraged to consider the needs of colorblind readers (a substantial minority of the male population) when choosing colors for figures. Many colorblind readers cannot interpret visuals that rely on discrimination of green and red, for example. Thus, we ask authors to recolor green-and-red heatmaps, graphs and schematics for which colors are chosen arbitrarily. Recoloring primary data, such as fluorescence or rainbow pseudo-colored images, to color-safe combinations such as green and magenta, turquoise and red, yellow and blue or other accessible color palettes is strongly encouraged.

Unnecessary figures should be avoided: data presented in small tables or histograms, for instance, can generally be stated briefly in the text instead. Figures should not contain more than one panel unless the parts are logically connected; each panel of a multipart figure should be sized so that the whole figure can be reduced by the same amount and reproduced on the printed page at the smallest size at which essential details are visible.

When a manuscript is accepted for publication, we will ask for high-resolution figure files, possibly in a different electronic format. This information will be included in the acceptance letter. See below for detailed digital image production and submission.

CHEMICAL AND BIOLOGICAL NOMENCLATURE AND ABBREVIATIONS
When possible, authors should refer to chemical compounds and biomolecules using systematic nomenclature, preferably using IUPAC and IUBMB rules (http://www.chem.qmw.ac.uk/iupac). Standard chemical and biological abbreviations should be used. Unconventional or specialist abbreviations should be defined at their first occurrence in the text.

GENE NOMENCLATURE
Authors should use approved nomenclature for gene symbols, and use symbols rather than italicized full names. Approved human gene symbols are provided by HUGO Gene Nomenclature Committee (HGNC), e-mail: hgnc@genenames.org; see also http://www.genenames.org/. Approved mouse symbols are provided by The Jackson Laboratory, e-mail: nomen@informatics.jax.org; see also http://www.informatics.jax.org/mgihome/nomen.

For proposed gene names that are not already approved, please submit the gene symbols to the appropriate nomenclature committees as soon as possible, as these must be deposited and approved before publication of an article.

Avoid listing multiple names of genes (or proteins) separated by a slash, as in ‘Oct4/Pou5f1’, as this is ambiguous (it could mean a ratio, a complex, alternative names or different subunits). Use one name throughout and include the other at first mention: ‘Oct4 (also known as Pou5f1).’
LIFE SCIENCES REPORTING GUIDELINES
Authors of life sciences research papers that are sent for external review must include in their manuscripts relevant details about several elements of experimental and analytical design. These requirements aim to improve the transparency of reporting and the reproducibility of published results. They focus on elements of methodological information that are frequently poorly reported (see more details on these elements here). During peer review, authors will be asked to confirm that these elements are included in the manuscript by filling out a checklist that will be made available to the editors and reviewers.

CHARACTERIZATION OF CHEMICAL AND BIOMOLECULAR MATERIALS
Nature Chemical Biology is committed to publishing the highest quality research at the interface of chemistry and biology. Manuscripts submitted to the journal will be held to rigorous standards with respect to experimental methods and characterization of new compounds. Authors must provide adequate data to support their assignment of identity and purity for each new compound described in the manuscript. Authors should provide a statement confirming the source, identity and purity of known compounds that are central to the scientific study, even if they are purchased or resynthesized using published methods.

Chemical identity for organic and organometallic compounds should be established through spectroscopic analysis. Standard peak listings (see preparation of Online Methods section below) for 1H NMR and proton-decoupled 13C NMR should be provided for all new compounds. Other NMR data should be reported (19F NMR, 13C NMR, etc.) when appropriate. For new materials, authors should also provide mass spectral data to support molecular weight identity. High-resolution mass spectral (HRMS) data are preferred. UV or IR spectral data may be reported for characteristic functional group identification, when appropriate. Melting point ranges may be provided for crystalline materials. Specific rotations may be reported for chiral compounds. Authors should provide references, rather than detailed procedures, for known compounds, unless their protocols represent a departure from or improvement on published methods.

Combinatorial compound libraries. Authors describing the preparation of combinatorial libraries should include standard characterization data for a diverse panel of library members.

Biomolecular identity. For new biopolymers and macromolecules (oligosaccharides, peptides, nucleic acids, etc.), direct structural analysis by NMR spectroscopic methods may not be possible. In these cases, authors must provide evidence of identity based on: sequence (when appropriate) and mass spectral characterization. Detailed characterization of standard oligonucleotide reagents (for example, primers) for molecular biology experiments is not required.

Biological constructs. Authors should provide sequencing or functional data that validates the identity of their biological constructs (plasmids, fusion proteins, site-directed mutants, etc.).

Sample purity. Evidence of sample purity is requested for each new compound. Methods for purity analysis depend on the compound class. For most organic and organometallic compounds, purity may be demonstrated by high field 1H NMR or 13C NMR data, although elemental analysis (±0.4%) is encouraged for small molecules. Quantitative analytical methods including chromatographic (GC, HPLC, etc.) or electrophoretic analyses may be used to demonstrate purity for small molecules and biopolymeric materials.

Spectral data. Detailed spectral data for new compounds should be provided in list form (see below) in the Online Methods section or in a Supplementary Note. Figures containing spectra generally will not be published as a manuscript figure unless the data are directly relevant to the central conclusions of the paper. Authors are encouraged to include high-quality images of spectral data for key compounds in the supplementary information. Specific NMR assignments should be listed after integration values only if they were unambiguously determined by multidimensional NMR or decoupling experiments. Authors should provide information about how assignments were made in the Online Methods section.

Example format for compound characterization data. mp: 100–102 °C (lit.1999–101 °C); TLC (CHCl3:MeOH, 98:2 v/v): Rf = 0.23; [α]D = –21.5 (0.1 M in n-hexane); 1H NMR (400 MHz, CDCl3): δ 9.30 (s, 1H), 7.55–7.41 (m, 6H), 5.61 (d, J = 5.5 Hz, 1H), 5.40 (d, J = 5.5 Hz, 1H), 4.93 (m, 1 H), 4.20 (q, J = 8.5 Hz, 2H), 2.11 (s, 3H), 1.25 (t, J = 8.5 Hz, 3H); 13C NMR (125 MHz, CDCl3): δ 165.1, 165.0, 140.5, 138.7, 131.5, 129.2, 118.6, 84.2, 75.8, 66.7, 37.9, 20.1; IR (Nujol): 1765 cm−1; UV/Vis: λmax 267 nm; HRMS (m/z): [M]+ calcd. for C26H33ClNO2, 420.0406; found, 420.0412; analysis (calcld, found for C26H33ClNO2): C (57.16, 57.22), H (3.60, 3.61), Cl (16.87, 16.88), N (3.33, 3.33), O (19.04, 19.09).

Small-molecule high-throughput screening data
Manuscripts reporting high-throughput screens of small-molecule libraries should include a supplementary information table summarizing the assay, library, screen and post-screen analysis. A template and instructions for preparing the high-throughput screening table are available.

Chemical probe data
Manuscripts that report the characterization of new chemical probes will include a peer-reviewed table that summarizes relevant compound and activity information. This Chemical Probe Table will be linked to the online version of the manuscript and the Chemical Probe Page of the journal website. A template and instructions for preparing the Chemical Probe Table are available.

Crystallographic data for small molecules
Manuscripts reporting new three-dimensional structures of small molecules from crystallographic analysis should include a cif file and a structural figure with probability ellipsoids for publication as Supplementary Information. The structure factors for each structure should also be submitted. Both the structure factors and the structural output must have been checked using the IUCR’s CheckCIF routine, and a PDF copy of the output must be included with the submission, together with a justification for any alerts reported. Crystallographic data for small molecules should be submitted to the Cambridge Crystallographic Data Centre and the deposition number referenced appropriately in the manuscript. Full access must be provided on publication.

Macromolecular structural data
Manuscripts reporting new macromolecular structures (proteins, nucleic acids, etc.) should contain a table summarizing structural and refinement statistics. Templates for such tables describing NMR and X-ray crystallography data are available. To facilitate assessment of the quality of the structural data, a stereo image of a portion of the electron density map (for crystallography papers) or of the superimposed lowest energy structures (>10; for NMR papers) should be provided with the submitted manuscript. If the reported structure represents a novel overall fold, a stereo image of the entire structure (as a backbone trace) should also be provided.

CHEMICAL COMPOUND INFORMATION
For manuscripts that describe original research (Brief Communication or Article), the Nature Chemical Biology acceptance process includes automated deposition of the article’s chemical compound data to PubChem (http://pubchem.ncbi.nlm.nih.gov). In the online version of the published
paper, chemical compounds will be linked to a Compound Data Page for each compound, which includes links to PubChem and further information related to the compound.

SUPPLEMENTARY INFORMATION

Supplementary information should be submitted with the manuscript and will be sent to referees during peer review. It is published with the online version of accepted manuscripts. We request that authors avoid "data not shown" statements and instead include data necessary to evaluate the claims of the paper as supplementary information. Supplementary information is not copyst/keyed by Nature Chemical Biology, so authors should ensure that it is clearly and succinctly presented, and that the style and terminology conform with the rest of the paper. The following guidelines detail the creation, citation and submission of supplementary information. Please note that modification of supplementary information after the paper is published requires a formal correction, so authors are encouraged to check their supplementary information carefully before submitting the final version.

Where there is supplementary information to be included exclusively in the online version of a paper published in Nature Chemical Biology, please follow these guidelines, or publication may be delayed:

• Designate each item as Supplementary Table, Figure, Video, Note or Data Set. Each type of supplementary information should be continuously numbered (for example, Supplementary Figure 1, Supplementary Figure 2, Supplementary Table 1, Supplementary Table 2 and so on).

• Please provide a title for Supplementary Tables and a title and a caption for Supplementary Figures, Supplementary Videos and Supplementary Notes. A Supplementary Note should be used only in consultation with the editors and for specific elements best presented in supplementary information, such as stand-alone descriptions related to methods (for example, algorithm description or compound synthesis and characterization).

• File sizes should be as small as possible, with a maximum size of 30 MB, so that they can be downloaded quickly. The combined total size of all files must not exceed 150 MB.

• All Supplementary Figures and Tables in the Supplementary Information should be grouped under a header entitled "Supplementary Results".

• You must cite "Supplementary Results" in the main text before going on to cite the figures and other items that make up the Supplementary Results section. You need not cite all of the Supplementary Figures, Tables, etc. and you need not cite them in order.

• Use the following samples as a guide (note: abbreviate "Figure" as "Fig." when in parentheses).

"Table 1 provides a selected subset of the most active compounds. The entire list of 96 compounds can be found as Supplementary Table 1."

"The biosynthetic pathway of L-ascorbic acid in animals involves intermediates of the D-glucuronic acid pathway (see Supplementary Fig. 2). Figure 2 shows..."

• For optimal quality videos please use H.264 encoding, the standard aspect ratio of 16:9 (4:3 is second best) and do not compress the video. Videos will be rendered using the Brightcove video platform; for additional source file recommendations please refer to this page: http://support.brightcove.com/en/docs/video-source-file-specifications-and-recommendations.

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• Remember to include a brief title and legend (incorporated into the file to appear near the image) as part of every figure and video submitted, and a title as part of every table.

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