



## Information for Authors

(Revised July 1, 2012)

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ACS Synthetic Biology publishes high-quality research in genetic engineering and the application of engineering principles to study natural systems. Engineers and scientists—chemists and chemical engineers, biologists and bioengineers, electrical engineers and computer scientists, and biophysicists—are invited to submit their original work to the journal.

# Journal Scope

The journal is particularly interested in receiving manuscripts that focus on the following topics:

- \* Design and optimization of genetic systems
- \* Genetic circuit design and their principles for their organization into programs
- \* Computational methods to aid the design of genetic systems
- \* Experimental methods to quantify genetic parts, circuits, and metabolic fluxes
- \* Genetic parts libraries: their creation, analysis, and ontological representation
- \* Protein engineering including computational design
- \* Metabolic engineering and cellular manufacturing, including biomass conversion
- \* Natural product access, engineering, and production
- \* Creative and innovative applications of cellular programming
- \* Medical applications, tissue engineering, and the programming of therapeutic cells
- \* Minimal cell design and construction
- \* Genomics and genome replacement strategies
- \* Viral engineering
- \* Automated and robotic assembly platforms for synthetic biology
- \* DNA synthesis methodologies
- \* Metagenomics and synthetic metagenomic analysis
- \* Bioinformatics applied to gene discovery, chemoinformatics, and pathway construction
- \* Gene optimization
- \* Methods for genome-scale measurements of transcription and metabolomics
- \* Systems biology and methods to integrate multiple data sources
- \* in vitro and cell-free synthetic biology and molecular programming
- \* Nucleic acid engineering

# **Types of Content**

ACS Synthetic Biology publishes original Letters, Articles, Reviews, Technical Notes, and Tutorials that highlight recent developments and further the understanding of synthetic biology and systems bioscience. The editors welcome the submission of manuscripts in the following categories:

Letters. Short reports of original research focused on an individual significant finding. Letters are peer-reviewed and begin with an unreferenced abstract of less than 150 words. Abstracts should not contain abbreviations or acronyms unless essential. Letters include unheaded sections for the Introduction and combined Results and Discussion and a headed section for Methods that can also contain subsections. Letters should contain 4–6 display items (figures/tables/schemes) and ~30 references. Letters should include sufficient experimental detail to allow others to reproduce the findings presented. Supporting Information is encouraged. Letters should be approximately 4500 words or less in length, including the abstract, body text, methods, references, and figure/scheme legends. Letters include a graphical Table of Contents entry and a list of up to six keywords.

Articles. Concise, yet comprehensive, original research presenting an advance of immediate, broad, and lasting impact. Articles are not intended to be follow-up manuscripts, unless they contain new and extensive information that will advance the understanding of the system or biological process. Articles are peer-reviewed and contain an unreferenced abstract of 250 words or less. Abstracts should not contain abbreviations or acronyms unless essential. A referenced introduction should expand on the background of the work. Articles include the following headed sections (presented in this order): combined Results and Discussion, and Methods. In general, Articles include 8–10 display items (figures/tables/schemes) and ~50 references. Supporting Information may be included. Articles include a graphical Table of Contents entry and a list of up to six keywords.

**Reviews.** Topical, brief, and of general interest to the readership. Reviews are peer-reviewed and contain an unreferenced abstract of 250 words or less. A good review critically evaluates existing work, provides a logical organization, and makes the material more easily available to those not expert in the area through clear text and figures. Reviews should contain ~100 references, and the use of graphics to illustrate key concepts is strongly encouraged. Include a graphical Table of Contents entry consisting of a colorful figure that represents the topic of the review. Authors may choose to divide the review into sections preceded by headings. Finally, the journal recommends that authors define key words used in the review and key concepts in separate textboxes.

Technical Notes. Concise communications that focus on the characterization of new or interesting parts, tools, and websites of significance to synthetic biology (such as transcriptional promoters and other DNA parts; and graphical user interfaces and websites associated with computational methodologies). Technical notes are evaluated by the utility and not on the basis of novelty or originality. Technical notes are peer-reviewed and begin with an unreferenced abstract of less than 150 words. Technical notes should not exceed 1500 words including references or contain more than 2 display items (figures/tables/schemes) not including the required graphical Table of Contents entry and a list of up to six keywords.

*Tutorials.* Detailed descriptions of synthetic, computational, and systems methodologies. Tutorials are peer-reviewed and begin with an unreferenced abstract of less than 150 words. Include a graphical

Table of Contents entry consisting of a colorful figure that represents the topic of the tutorial and up to six keywords

In addition to peer-reviewed content, the journal also publishes the *In This Issue* piece, a feature devoted to highlighting research in the journal. Editors also commission *Viewpoint* pieces which include general commentaries of immediate interest to the broad readership. *Viewpoint* pieces are not peer-reviewed.

## Editorial Process and Peer-Review

Manuscripts are handled expeditiously, and full advantage is taken of Web technology in the submission and review of manuscripts.

#### The Review Process

Editors evaluate submitted manuscripts, and only those judged to fall within the scope of the journal and to be of potential interest to our readers are sent to 2 or more reviewers for evaluation. Reviewers can suggest that a paper be published, revised, or rejected. Reviewers will evaluate the originality, technical quality, clarity of presentation, and importance to the field. The editors evaluate the reviewers' arguments in the context of the scope and aims of the journal and make the final decision on each manuscript.

Please note that editorial decisions are based on many factors. Reviewers' concerns are considered very seriously. In cases when reviewers suggest differing decisions, additional information may be requested from the reviewers, other experts may be consulted, and/or the authors may be asked to clarify questionable sections. Reviewers may be asked to review subsequent versions of the manuscript, especially if new data have been added to the paper, to evaluate whether the authors have addressed the scientific concerns. In such cases, blind copies of all reviewer comments are normally sent to the reviewers. This practice allows the reviewers to obtain a clear understanding of the expectations of the editors. The editors will expedite any additional rounds of reviews to ensure timely publication.

#### **Anonymity**

The ACS strongly disapproves of any attempts by authors to determine the identity of reviewers or to confront potential reviewers. The editorial policy of this journal is to neither confirm nor deny any speculation about the identities of our reviewers. The journal will not release the identity of a reviewer to the authors or to other reviewers.

### **Professional Ethics**

All parties—editors, reviewers, and authors—are expected to adhere to the standards embodied in the American Chemical Society's *Ethical Guidelines to Publication of Chemical Research*, which are available at <a href="http://pubs.acs.org/ethics">http://pubs.acs.org/ethics</a>. Authors are reminded of their obligation to obtain the consent of all their coauthors before submitting a paper for publication. If any change in authorship is necessary after a paper has been submitted, the corresponding author must mail or fax a signed letter to the editor confirming that all of the original coauthors have been notified and have agreed to the change. If any author is deleted after a paper has been submitted, the deleted author must mail or fax a signed letter to the editor confirming that the author has agreed to the change.

## **Submission Policies**

### **Conflict of Interest Disclosure**

A statement describing any financial conflicts of interest or lack thereof is published with each manuscript. This statement, provided separately from the manuscript during the submission process, should describe all potential sources of bias, including affiliations, funding sources, and financial or management relationships, that may constitute conflicts of interest (please see the <u>ACS Ethical Guidelines</u>). The corresponding author must provide a statement on behalf of all authors of a manuscript. If no conflict of interest is declared during the submission process, the following statement will be published in the manuscript: "The authors declare no competing financial interest."

#### **Author List**

During manuscript submission, the submitting author must provide contact information (full name, email address, institutional affiliation and mailing address) for all of the co-authors. Because all of the author names are automatically imported into the electronic Journal Publishing Agreement, the names must be entered into ACS Paragon Plus in the same sequence as they appear on the first page of the manuscript. (Note that co-authors are not required to register in ACS Paragon Plus.) The author who submits the manuscript for publication accepts the responsibility of notifying all co-authors that the manuscript is being submitted. Deletion of an author after the manuscript has been submitted requires a confirming letter to the Editor-in-Chief from the author whose name is being deleted. For more information on ethical responsibilities of authors, see the <a href="Ethical Guidelines to Publication of Chemical Research">Ethical Guidelines to Publication of Chemical Research</a>.

#### **Costs**

ACS Synthetic Biology does not impose any submission or publication fees.

### **Database Deposition**

Sequence Data. Papers reporting protein or nucleic acid sequences will not be published without an accession number to GenBank/EMBL/DDBJ, SWISS-PROT, or another appropriate database in the field that provides free access to the data for all scientists from the date of publication.

Crystal and NMR Structures. Small molecular crystallographic data should be submitted upon publication to the Cambridge Structural Database (<a href="www.ccdc.cam.ac.uk">www.ccdc.cam.ac.uk</a>). Papers reporting macromolecular NMR or crystal structures must specifically state that the atomic coordinates have been deposited in the Protein Data Bank (PDB) (<a href="www.rcsb.org/pdb/home/home.do">www.rcsb.org/pdb/home/home.do</a>) or the Nucleic Acid Database (<a href="http://ndbserver.rutgers.edu">http://ndbserver.rutgers.edu</a>) and must list the accession code(s). These coordinates must be designated "for immediate release upon publication". Authors of papers reporting X-ray crystal structures are encouraged to deposit the structure factor files in the PDB. No formal requirement exists for deposition of NMR assignments and constraints (see Biological Magnetic Resonance Data Bank at <a href="www.bmrb.wisc.edu">www.bmrb.wisc.edu</a>).

Electron Microscopy Data. No formal requirement exists for deposition of molecular envelope reconstruction from electron microscopy data, but the journal encourages authors to deposit relevant information in appropriate databases. Approved databases for deposition of electron microscopy data are the Worldwide Protein Data Bank (http://www.wwpdb.org), the Protein Data Bank Japan (www.pdbj.org), or the Macromolecular Structure Database–EMBL–European Bioinformatics Institute (MSD-EMBL-EBI, www.ebi.ac.uk/msd).

*Microarray Data.* Data must be submitted to the GEO (<a href="www.ncbi.nlm.nih.gov/geo">www.ncbi.nlm.nih.gov/geo</a>) or ArrayExpress (<a href="www.ebi.ac.uk/arrayexpress">www.ebi.ac.uk/arrayexpress</a>) databases and the relevant accession numbers included in the published manuscript. Please reference the Microarray Gene Expression Data (MGED) open letter specifying microarray standards at <a href="www.mged.org/Workgroups/MIAME/miame\_checklist.html">www.mged.org/Workgroups/MIAME/miame\_checklist.html</a>.

Genetically Modified Organisms and Mutants. Use established repositories such as the Jackson Laboratory, the Mutant Mouse Regional Resource Center, the American Type Culture Collection, the UK Stem Cell Bank, or another public storage area whenever possible. Large datasets for which an approved database has not yet been established must be housed as online Supporting Material on the journal's website.

# Material and Data Availability

ACS Synthetic Biology understands that communication and collaboration between chemists and biologists are significantly enhanced when materials and data can be exchanged among scientists. Therefore, a condition of publication is that authors are required to make materials, data, and protocols available to readers through deposition in a publicly used database. Hosting on an author's website is not an acceptable substitute. Authors also agree to make available to interested academic researchers for their own use any materials reported in their manuscript that are not otherwise obtainable. Any restrictions to the availability of materials or information must be stated at the time of submission.

## Online Publication, Publication Dates, and Patent/IP Considerations

Just Accepted Manuscripts. Just Accepted manuscripts are peer-reviewed, accepted manuscripts that are posted on the ACS Publications website prior to technical editing, formatting for publication, and author proofing—usually within 30 minutes to 24 hours of acceptance by the editorial office. During the manuscript submission process, Authors can choose to have their manuscript posted online as a Just Accepted manuscript. All Authors can select the Just Accepted service. However, Authors are responsible for ensuring that all intellectual property issues are resolved prior to manuscript acceptance. Because the process is completely automated, it is critical that the accepted version of the manuscript is complete and prepared according the requirements in these author instructions and all intellectual property issues are resolved prior to acceptance. Once the manuscript is posted on the Web, it is accessible to all readers, and is indexed by SciFinder, PubMed and Google. For further information. please refer the Accepted to Just http://services.acs.org/pubshelp/passthru.cgi?action=kb&item=244. Note that publishing a manuscript as Just Accepted is not a means by which to comply with the NIH Public Access Mandate.

When page proofs are made available, review the proofs in detail to ensure that the text and figures are correct. *ACS Synthetic Biology* will publish manuscripts As Soon As Publishable (ASAP) online when proofs are corrected and all author concerns are resolved, usually within days after the authors return their corrected proofs. These ASAP articles represent the final, published scientific articles of record. As with *Just Accepted* manuscripts, Authors should take this schedule into account when planning intellectual and patent activities related to a manuscript.

The actual date on which an accepted paper is published on the Web is recorded on the HTML version of the manuscript and on the first page of the PDF version. Published manuscripts are definitive and may be altered only through an Addendum or Erratum. All articles published receive a unique digital object identifier (DOI) number (<a href="http://www.doi.org/">http://www.doi.org/</a>), which may be used to cite the paper at all stages of its existence.

## **Security Concerns**

Certain manuscripts may represent a potential security risk for the public. Such manuscripts will be brought to the attention of editors of the journal. If necessary, outside reviewers with expertise in security matters will be consulted.

## **Submission Procedure**

Authors must submit manuscripts online at <a href="http://paragonplus.acs.org/login">http://paragonplus.acs.org/login</a>. Complete details regarding acceptable file formats, etc., are available at this site. Submission is taken to imply that all coauthors have approved of the content and submission to ACS Synthetic Biology and that the corresponding author is authorized to represent all authors. The Web submission site employs state-of-the-art security mechanisms to ensure that all electronically submitted manuscripts are secure. These same security mechanisms are also utilized throughout the peer-review process, permitting access only to editors and reviewers who are assigned to a particular paper.

## Writing Style and Language Usage

Chemists, biologists, and engineers with other distinct scientific training read ACS Synthetic Biology. Therefore, making all manuscripts accessible to scientists interested in systems and synthetic biology is essential. The editors will request that authors rewrite portions of the manuscript if it is not accessible to a broad audience. Clarity and conciseness are critical requirements for publications. Authors should consult The ACS Style Guide (<a href="http://pubs.acs.org/page/books/styleguide/index.html">http://pubs.acs.org/page/books/styleguide/index.html</a>) for guidance on style, word-usage conventions, nomenclature, physical quantity symbols and units, abbreviations, use of italics, and punctuation.

The ACS Style Guide also provides information about copyrights and insight on what editors and reviewers look for in evaluating manuscripts. Spelling and use of periods and commas in numbers should conform to U.S. usage. Any author who is not fully fluent in idiomatic English is urged to obtain assistance with manuscript preparation from a colleague whose native language is English.

### **Table of Contents/Abstract Graphic**

Each paper must include a single graphic to be used for the Table of Contents (TOC) and abstract. This graphic should capture the readers' attention and, in conjunction with the manuscript title, give readers a visual impression of the essence of the paper without providing specific results. Type size of labels, formulas, or numbers within the graphic must be legible at publication size. Tables or spectra are not acceptable as TOC/abstract artwork. Color graphics are highly encouraged, with text kept to a minimum. At final published size, all text should be ~6 points. These graphics should be ~8 cm in width and ~4 cm height, and must be ~300 dpi in resolution.

### **Cover Letter**

A letter must accompany the submission, and it must contain the following elements:

- Manuscript title,
- Name of the corresponding author,
- Name(s) of any other author(s),
- A paragraph explaining why the paper is appropriate for ACS Synthetic Biology, and

- Note whether the manuscript was discussed with an ACS Synthetic Biology Editor before submission.
- A short (~150 word) lay summary (at the level of an undergraduate in biochemistry) describing the significance of the study for a broad audience

If your manuscript is accepted for publication, *ACS Synthetic Biology* may choose to modify, edit, and publish your lay summary in the *In This Issue* feature of the journal. The journal may also promote your research article through press communications.

## **Journal Publishing Agreement**

A properly completed and signed Journal Publishing Agreement must be submitted for each manuscript. ACS Paragon Plus provides an electronic version of the Agreement that will be available on the **My Authoring Activity** tab of the corresponding author's Home page once the manuscript has been assigned to an editor. A PDF version of the Agreement is also available, but **authors are strongly encouraged to use the electronic Journal Publishing Agreement.** If the PDF version is used, **all pages of the signed PDF Agreement must be submitted.** If the corresponding author cannot or should not complete either the electronic or PDF version for any reason, another author should complete and sign the PDF version of the form. Forms and complete instructions are available at <a href="http://pubs.acs.org/page/copyright/journals/index.html">http://pubs.acs.org/page/copyright/journals/index.html</a>.

## **Acceptable File Formats and Graphics Specifications**

**Text.** Please refer to the Manuscript Submission and Peer Review in ACS Paragon Plus site (<a href="http://paragonplus.acs.org">http://paragonplus.acs.org</a>) for a complete listing of acceptable file formats and tips for working with graphics.

*Tables.* Submit within the body of the manuscript text file.

- Number consecutively and use Arabic numbers.
- Include a descriptive heading that, together with the individual column headings, makes the table self-explanatory.
- Give footnotes letter designations and cite them in the table by italic superscript letters. The sequence of letters should proceed by line rather than by column.
- When a reference is cited, insert a lettered footnote in the table and put the reference number in a footnote.
- When columns are used, arrange data efficiently in order to save space.
- Place crystallographic and NMR data tables last in a series of tables in a manuscript, because they are generally placed in the Methods section.

### *Graphics.* TIFF and PDF are the preferred file formats for graphical objects.

- Artwork may be categorized into structure blocks, equations (numbered reactions), schemes, and figures. Within each category, use Arabic numbers to sequentially number artwork.
- All chemical structures should be prepared using ChemDraw and the ACS document settings.
- Schemes may have titles and footnotes.
- Figures must have captions.
- Number structures with boldface Arabic numbers.
- Do not place macromolecular structures on any backgrounds. Choose colors that will allow all features to be clearly visible on white background.

- Submit graphics at the required publication size.
  - o 1-column figures must be ~8 cm wide. 2-column figures must be ~17 cm wide.
  - o Graphics must be 300 dpi for color and photographic images and 1200 dpi for line art.
  - o Figures containing photographic material should be in TIFF format.
- For color graphics, format in CMYK color scheme.
- Use Arial font for lettering within a graphic.
  - o Lettering should be ~6 points, and lines should have ~0.5-point thickness at final published size.
  - o Lettering and lines should be of uniform density.
  - o Text within a graphic should be initial-capped.
- Panel labels should be bold, lowercase, and in the upper-left corner of the panel.
- Do not place a rule around the entire graphic.
- To save space, place legends for graphs within the main body of the graph, whenever possible.
- Graphs containing similar information should be of similar size.
- Name your graphics Figure 1, Figure 2, etc., and place a call-out in the main manuscript text where the graphic should be located.

## **Organization of Paper**

**Title.** Titles should clearly and concisely reflect the emphasis and content of the manuscript and be accessible to a broad audience. Titles are of great importance for current awareness and information retrieval and should be carefully constructed for these purposes. **One option that authors may wish to consider is to present a significant outcome in the title. Titles should not contain specialized <b>abbreviations or jargon.** Editors may request author revision of a title at any time prior to publication.

Author List. Include all those who have made substantial contributions to the work. To facilitate indexing and retrieval and for unique identification of an author, use first names, initials, and surnames (e.g., John R. Smith) or first initials, second names, and surnames (e.g., J. Robert Smith). At least one author must be designated with an asterisk as the person to whom correspondence should be addressed.

Abstract. All Articles, Letters, Reviews, Tutorials, Technical Notes, and Viewpoints must contain an abstract, which should provide a succinct, informative summation of the most important results and conclusions. Ideally, an abstract should be less than 150 words. Abbreviations should be used sparingly and spelled out when first used. Abstracts display the same graphic provided for the TOC.

*Keywords*. Authors should provide a list of up to six keywords to be displayed below the abstract of their publication.

**Introduction.** In this unheaded section, the purpose and significance of the research should be clearly stated and placed in the context of earlier work in the area. Historical summaries are seldom warranted. Do not attempt a complete survey of the literature. If a recent article has summarized work on the subject, cite that article without repeating its individual citations. In general, the introductory section should be ~750 words for a letter and ~1000 words for an article.

**Results and Discussion.** Present this section concisely. The first paragraphs should explain the motivation for the work and how it combines the chemistry and biology disciplines. Use tables and

figures only if they are essential for the comprehension of the data. Do not present the same data in more than one figure or in both a figure and a table. The purpose of the discussion is to interpret the results and to relate them to existing knowledge in the field. Manuscripts reporting new 3D structures of small molecules from crystallographic analysis should include a structural figure with probability ellipsoids and a CIF file. Those reporting NMR or X-ray crystal structures of macromolecules must include a table with relevant data collection and refinement statistics. For manuscripts reporting structures derived from electron microscopy experiments, authors must provide one image showing the distribution of particles being analyzed, the percentage of the particles being used in the reconstruction, and a correlation coefficient plot (or equivalent data) to indicate the resolution of the presented structure. Upon request from the editor, the authors must provide sequence, structure data (including coordinate files and structure), and/or microarray data in a MIAME-compliant format to the editors and reviewers for the purpose of evaluating the manuscript.

Methods. Provide a clear, unambiguous description of materials, methods, and equipment in sufficient detail to permit repetition of the work elsewhere. Describe novel experimental procedures in detail, but refer to published procedures by literature citation of both the original and any published modifications. Manuscripts reporting data from experiments on live animals must include a statement identifying the approving committee and certifying that such experiments were performed in accordance with all national or local guidelines and regulations. Results from experiments involving humans or tissue samples must additionally include a statement that informed consent was obtained from the subject or from the next of kin. Precautions for handling dangerous material or for performing hazardous procedures must be explicitly stated.

Supporting Information. This information is made available to the reviewers during the peer-review process. The Supporting Information format of this journal can accommodate and make readily available almost any type of supplementary figures or data (e.g., reproductions of spectra, experimental procedures, tabulated data, or expanded discussion of peripheral findings). Supporting Information must be submitted at the same time as the manuscript and uploaded separately to the ACS Paragon Plus Environment. A list of acceptable file types\_is available on the Web <a href="http://paragonplus.acs.org">http://paragonplus.acs.org</a>)

Information files of the same type should be prepared as a single file (rather than submitting a series of files containing individual images or structures). For example, all Supporting Information available as PDF files should be contained in one PDF file.

Authors need to include a paragraph at the end of the paper indicating the nature of the Supporting Information material and the means by which an interested reader can obtain copies directly. Use the following format:

Supporting Information Available: [Your description of the supporting materials.] This material is available free of charge via the Internet at <a href="http://pubs.acs.org">http://pubs.acs.org</a>.

**Abbreviations.** If you use abbreviations extensively throughout the manuscript, please add this section to spell these out.

Author Information. Please provide your current address in this section. ACS Synthetic Biology also recommends that individual contributions of authors be listed under a separate subheading entitled

"Author Contribution". Please also list sources of funding under a separate subheading entitled "Funding Sources" and "Conflict of Interest" (if any) in another additional subsection.

Acknowledgment. Include financial support, technical assistance, advice from colleagues, gifts, etc.

**References.** Compile all references together in a list at the end of the manuscript text. Many of them will have links to other Web resources, such as the corresponding abstracts in Chemical Abstracts and the full text on publisher websites. Because of this electronic linking, and because the references are not checked in detail by editors or reviewers, it is crucial that authors verify their accuracy. Avoid unnecessarily long lists of references. However, authors must reference all previous publications in which portions of the present work have appeared. Avoid long references; place additional data and peripheral discussion in the Supporting Information rather than in references. Supplementary references may be placed in Supporting Information. Literature references must be numbered with Arabic numerals in the order of their first citation in the text and the corresponding numbers inserted at the appropriate locations in the text. Please use the following reference styles (which in EndNote is the *Biochemistry* style).

## For journals:

1. Moreau, P., Anizon, F., Sancelme, M., Prudhomme, M., Bailly, C., Severe, D., Riou, J.-F., Fabbro, D., Meyer, T., and Aubertin, A.-M. (1999) Syntheses and biological activities of rebeccamycin analogues. Introduction of a halogenoacetyl substituent. *J. Med. Chem.* 42, 584–592.

For journal articles published online ahead of print or online only, the DOI should be used: 2. Liu, C., and Yang, S. (2009) Synthesis of angstrom-scale anatase titania atomic wires. *ACS Nano* Epub Mar 23, 2009. DOI: 10.1021/nn900157r.

#### For books:

3. Fierke, C. A., and Hammes, G. G. (1996) Transient kinetic approaches to enzyme mechanisms. In *Contemporary Enzyme Kinetics and Mechanism* (Purich, D., Ed.), 2nd ed., pp 1–35, Academic Press, New York.

Titles of journals are abbreviated according to *Chemical Abstracts Service Source Index* (CASSI, <a href="www.cas.org/products/print/cassipr/index.html">www.cas.org/products/print/cassipr/index.html</a>). Manuscripts accepted for publication are cited as "in press"; the DOI should be given if the paper is published online. Cite manuscripts that are in preparation or have been submitted but not yet accepted as unpublished experiments or personal communications.

Web-Enhanced Objects Such as Movies. ACS Synthetic Biology encourages the use of multimedia attachments such as animations and movies. These objects should complement a reader's understanding of the research being reported. For acceptable file formats and specifications please refer to the Web page on Specifications for Web Enhanced Objects (http://pubs.acs.org/page/4authors/submission/weo.html).

# **Additional Requirements**

**Nomenclature.** Use abbreviations and acronyms sparingly, and all usage should be defined at the first occurrence in the text. Whenever possible, use systematic nomenclature as recommended by IUPAC and IUBMB for chemical compounds and biomolecules. Names of organisms should comply with genetic conventions, with genus and species names written in italics and spelled out in full on first appearance. Gene symbols should conform to approved nomenclature and should be italicized, whereas corresponding protein products should start with a capital letter and should not be italicized. Consult the available nomenclature databases (*e.g.*, LocusLink) for correct names and symbols. Enzyme names should be accompanied by their Enzyme Commission numbers.

Chemical Compound Characterization. The knowledge of the purity of compounds employed in biological studies, whether they are synthesized, purchased, or received as gifts, is a crucial factor for obtaining reliable and reproducible results. For studies reported in *ACS Synthetic Biology*, it is recommended that assayed compounds be at least 90% pure as judged by HPLC, LC-MS, and NMR. The analytical methods used for compound characterization and purity assessment should be mentioned in the Experimental Procedures section. For novel compounds, it is important to obtain such data to confirm their structure and purity. Manuscripts for *ACS Synthetic Biology* should *at least* provide exemplary characterization data for key compounds, including LC-MS, HPLC, <sup>1</sup>H NMR/<sup>13</sup>C NMR (peak lists), and HRMS. For compounds prepared in a library format, a general experimental procedure should be provided, including full experimental details, with yields, for a representative selection of library members. The synthesis protocols and selected characterized compounds must reflect the reliability and scope of the reaction sequence. The purity of all reported library compounds should be explicitly stated. The submission of manuscripts purely based on mixture synthesis and/or mixture analysis is discouraged.

# **Conditions of Acceptance**

When a paper is accepted for publication in ACS Synthetic Biology, the authors:

- Will honor any reasonable request from editors, reviewers, and other scientists for materials, methods, or data necessary for verification of the conclusions reported in the paper;
- Have deposited protein and nucleic acid sequences, crystallographic structures, and microarray
  data in approved databases and provided accession numbers for inclusion in the published
  manuscript as described in the deposition policies described above;
- Provide assurance that animals used in the study were cared for in accordance with institutional guidelines;
- Verify that, in human studies, consent was obtained after the consequences of the studies had been explained to the experimental subjects. All research on humans must have IRB approval;
- Agree to disclose all potential sources of bias, including affiliations, funding sources, and financial or management relationships, that may constitute conflicts of interest; and
- Will not release to the press or the public the accepted manuscript prior to the stated embargo date.

## Additional Journal Information

## **Language Editing and Other Services**

For a list of Language Editing Services, a list of free Viewers for Supporting Information, and more information on services and policies of the ACS please refer to the following link: <a href="http://paragonplus.acs.org">http://paragonplus.acs.org</a>.

## The ACS AuthorChoice Option

The ACS AuthorChoice option establishes a fee-based mechanism for authors or their research funding agencies to sponsor the open availability of their articles on the Web at the time of online publication. Under this policy, the ACS as copyright holder will enable unrestricted Web access to a contributing author's publication from the Society's website in exchange for a fixed payment from the sponsoring author. ACS AuthorChoice will also enable participating authors to post electronic copies of published articles on their own personal websites and institutional repositories for noncommercial scholarly purposes and allow immediate open access to an article as soon as it is published on the ACS website. For more details on ACS AuthorChoice, please http://pubs.acs.org/page/policy/authorchoice/index.html. ACS AuthorChoice is one way in which authors can comply with NIH and Wellcome Trust open access policies. Wellcome Trust will reimburse the ACS AuthorChoice fee.

ACS offers three options by which authors can fulfill the requirement of manuscript deposit for NIH funded research. For further information, please refer to the following Website: <a href="http://pubs.acs.org/page/policy/nih/index.html">http://pubs.acs.org/page/policy/nih/index.html</a>.

#### **Sharing Manuscripts**

Under the ACS Articles on Request policy, the Society will provide (free of charge) to all contributing authors a unique URL within the ACS Web site that they may e-mail to colleagues or post on external websites. These author-directed links are designed to facilitate distribution of an author's published work to interested colleagues in lieu of direct distribution of the PDF file by the author. The ACS Articles on Request policy allows 50 downloads within the first year after web publication and unlimited access via the same author-directed links 12 months after web publication. For additional details, please refer to the following link: <a href="http://pubs.acs.org/page/policy/articlesonrequest/index.html">http://pubs.acs.org/page/policy/articlesonrequest/index.html</a>

#### **Proofs**

Correction of the galley proofs is the responsibility of the corresponding (submitting) author. Authors will receive a link to their proofs via email. Corrections are limited to errors; authors are not permitted to rewrite sections at this stage of production. Substantive changes will require the approval of the editor. It is the responsibility of the corresponding author to ensure that all authors listed on the manuscript agree with the changes made on the proofs. Corrections should be submitted according to the instructions on the author galley website. *Galley proofs should be returned in <48 hours of receipt in order to ensure timely publication of the manuscript*. Corrected articles will be posted on the *ACS Synthetic Biology* ASAP website within a few days of receipt of the galley proofs.

# **Reprints**

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