

# This Is the Sample Article Template for mSystems®<sup>®</sup>, an American Society for Microbiology (ASM) Journal

First Author,<sup>a</sup> Second Author,<sup>a,†</sup> Third Author,<sup>b</sup> Fourth Final Author,<sup>a,b,\*</sup>

University Name, Faculty Group, Department, City, Country<sup>a</sup>; Company Name, City, Country<sup>b</sup>

**ABSTRACT** Research Articles have structured abstracts consisting of two sections with their own headings: “Abstract” and “Importance.” Because the structured abstract will be published separately by abstracting services, it must be complete and understandable without reference to the text. The Abstract section should be no more than 250 words and should concisely summarize the basic content of the paper without presenting extensive experimental details.

**IMPORTANCE** The Importance section should be no more than 150 words and should provide a nontechnical explanation of the significance of the study to the field. Avoid abbreviations and references, and indicate the specific organism under study. When it is essential to include a reference, use the format shown under “References” below.

**KEYWORDS:** keyword 1, keyword 2, keyword 3.

Please read the [Instructions to Authors](#) carefully, or browse the [FAQs](#) for further details.

## INTRODUCTION

The introduction should supply sufficient background information to allow the reader to understand and evaluate the results of the present study without referring to previous publications on the topic. The introduction should also provide the hypothesis that was addressed or the rationale for the present study. Choose references carefully to provide the most salient background rather than an exhaustive review of the topic.

**Sectioning commands.** Use `\section` to get a first-level heading. You can use `\subsection` or just `\textbf` to get a sub-heading. Further sectioning levels, such as `\subsubsection`, etc., are ignored.

**Citations and References.** This template uses BibTeX and natbib, so `\cite` such as Avizian et al. (1) can be used as usual to produce the correct citation style, and the reference list is generated automatically. In the reference list, references are numbered in the order in which they are cited in the article (citation-sequence reference system). In the text, references are cited parenthetically by number in sequential order. Data that are not published or not peer reviewed are simply cited parenthetically in the text.

Since the abstract must be able to stand apart from the article, references cited in it should be clear without recourse to the References section. Use an abbreviated form of citation, omitting the article title, as follows.

- (M. J. Fraser, G. E. Smith, and M. D. Summers, *J Virol* 47:287–300, 1983)
- (J. Scholefield, R. Manson, R. J. Johnston, R. Scott, and M. Spinell, p. 179–183, *in* R. C. Tilton, ed., *Rapid Methods and Automation in Microbiology*, 1981)

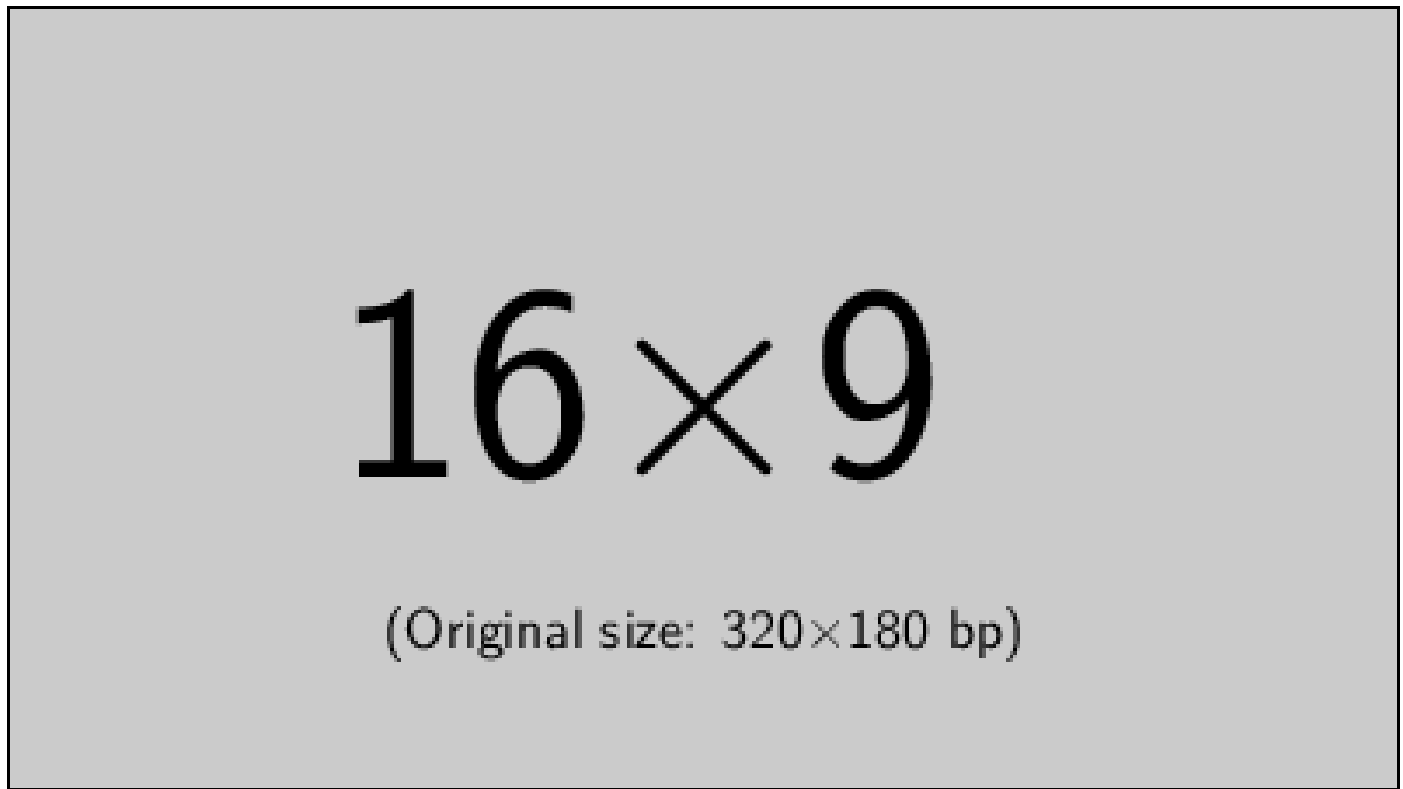
**Compiled** May 26, 2017

This is a draft manuscript, pre-submission

Address correspondence to Fourth Author, fourth@author.edu.

† Present Address: Second Author, Full Affiliation.

F.A., S.A. and F.F.A. contributed equally to this work.



**FIG 1** This is an example figure with caption. Use the fullwidth environment to make it span the entire width of the page. Lorem ipsum dolor sit amet, consectetur adipiscing elit.

40       “. . . the recent report of A. K. Datta and J. S. Pagano (Antimicrob Agents  
41       Chemother 24:10–14, 1983). . .”

42       **File types and formats.** Illustrations may be continuous-tone images, line draw-  
43       ings, or composites. On initial submission, illustrations may be supplied as PDF files,  
44       with the legend on the same page, to assist review. At the modification stage, produc-  
45       tion quality digital files must be provided, along with text files for the legends. The  
46       legends are copyedited and typeset for final publication, not included as part of the  
47       figure itself.

48       All graphics submitted with modified manuscripts should be grayscale or in the  
49       RGB color mode. Minimum resolution is 300 dpi for all file types. All images imported  
50       into a figure file must be at the correct resolution before they are placed in the file. (For  
51       instance, placing a 72-dpi image in a 300-dpi EPS file will not result in the placed image  
52       meeting the minimum requirements for file resolution.) Note that publication quality  
53       will not be improved by using a resolution higher than the minimum.

54       All graphics should be submitted at their intended publication size; that is, the  
55       image uploaded should be 100% of its print dimensions so that no reduction or  
56       enlargement is necessary. Resolution must be at the required level at the submitted  
57       size. Include only the significant portion of an illustration. White space must be  
58       cropped from the image, and excess space between panel labels and the image must  
59       be eliminated.

- 60       • Maximum figure width: 6.875 inches (ca. 17.4 cm)
- 61       • Maximum figure height: 9.0625 inches (23.0 cm)

62       **Author Warranty.** If accepted for publication, the Work will be made freely avail-

**TABLE 1** Automobile land speed records (GR 5-10)<sup>a</sup>

Speed (mph)	Driver	Car	Engine	Date	Extra comments
407.447	Craig Breedlove	Spirit of America	GE J47	8/5/63	(Just to demo a full-width table with auto-wrapping long lines)
413.199	Tom Green	Wingfoot Express	WE J46	10/2/64	
434.22	Art Arfons	Green Monster	GE J79	10/5/64	
468.719	Craig Breedlove	Spirit of America	GE J79	10/13/64	
526.277	Craig Breedlove	Spirit of America	GE J79	10/15/65	
536.712	Art Arfons	Green Monster	GE J79	10/27/65	
555.127	Craig Breedlove	Spirit of America, Sonic 1	GE J79	11/2/65	
576.553	Art Arfons	Green Monster	GE J79	11/7/65	
600.601	Craig Breedlove	Spirit of America, Sonic 1	GE J79	11/15/65	
622.407	Gary Gabelich	Blue Flame	Rocket	10/23/70	
633.468	Richard Noble	Thrust 2	RR RG 146	10/4/83	
763.035	Andy Green	Thrust SSC	RR Spey	10/15/97	

<sup>a</sup>Source is from this website: [https://www.sedl.org/afterschool/toolkits/science/pdf/ast\\_sci\\_data\\_tables\\_sample.pdf](https://www.sedl.org/afterschool/toolkits/science/pdf/ast_sci_data_tables_sample.pdf)

able to the public on ASM's *mSystems* website. ASM will grant the public the nonexclusive right to copy, distribute, adapt, and transmit the published Work for commercial or non-commercial use with proper attribution under the Creative Commons, Attribution license, Version 4.0 (CC-BY). For details, see <https://creativecommons.org/licenses/by/4.0/> and <https://creativecommons.org/licenses/by/4.0/legalcode>, as well as <http://msystems.asm.org/content/author-warranty-and-provisional-license-publish>.

## RESULTS

In the Results section, include the rationale or design of the experiments as well as the results; reserve extensive interpretation of the results for the Discussion section. Present the results as concisely as possible in one or more of the following: text, table(s), or figure(s). Data in tables (e.g., cpm of radioactivity) should not contain more significant figures than the precision of the measurement allows. Illustrations (particularly photomicrographs and electron micrographs) should be limited to those that are absolutely necessary to show the experimental findings. Number figures and tables in the order in which they are cited in the text, and be sure to cite all figures and tables.

The tabularx, booktabs and siunitx packages are loaded by asm-article.cls; see [Table 1](#) for an example table. Use `\begin{fullwidth}... \end{fullwidth}` in your table for the table to span the entire width of the page.

## DISCUSSION

The Discussion section should provide an interpretation of the results in relation to previously published work and to the experimental system at hand and should not contain extensive repetition of the Results section or reiteration of the introduction. In short papers, the Results and Discussion sections may be combined.

$$\frac{\partial^2 \Phi}{\partial x^2} + \frac{\partial^2 \Phi}{\partial y^2} + \frac{\partial^2 \Phi}{\partial z^2} = \frac{1}{c^2} \frac{\partial^2 \Phi}{\partial t^2} \quad (1)$$

Please note that display equations in the Overleaf template may be rendered with a slightly different presentation in the final published (*mSystems*) article.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor

91 incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud  
 92 exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure  
 93 dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.  
 94 Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit  
 95 anim id est laborum.

$$\int_0^{\infty} e^{-\alpha x^2} dx = \frac{1}{2} \sqrt{\int_{-\infty}^{\infty} e^{-\alpha x^2} dx} \int_{-\infty}^{\infty} e^{-\alpha y^2} dy = \frac{1}{2} \sqrt{\frac{\pi}{\alpha}} \quad (2)$$

97 Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor  
 98 incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud  
 99 exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.

## 100 MATERIALS AND METHODS

101 The Materials and Methods section should include sufficient technical information to  
 102 allow the experiments to be repeated. When centrifugation conditions are critical, give  
 103 enough information to enable another investigator to repeat the procedure: make of  
 104 centrifuge, model of rotor, temperature, time at maximum speed, and centrifugal force  
 105 ( $\times g$  rather than revolutions per minute). For commonly used materials and methods  
 106 (e.g., media and protein concentration determinations), a simple reference is sufficient.  
 107 If several alternative methods are commonly used, it is helpful to identify the method  
 108 briefly as well as to cite the reference. For example, it is preferable to state “cells  
 109 were broken by ultrasonic treatment as previously described (9)” rather than to state  
 110 “cells were broken as previously described (9).” This allows the reader to assess the  
 111 method without constant reference to previous publications. Describe new methods  
 112 completely and give sources of unusual chemicals, equipment, or microbial strains.  
 113 When large numbers of microbial strains or mutants are used in a study, include tables  
 114 identifying the immediate sources (i.e., sources from whom the strains were obtained)  
 115 and properties of the strains, mutants, bacteriophages, and plasmids, etc.

116 A method or strain, etc., used in only one of several experiments reported in the  
 117 paper may be described in the Results section or very briefly (one or two sentences)  
 118 in a table footnote or figure legend. It is expected that the sources from whom the  
 119 strains were obtained will be identified.

120 **Data Availability.** Authors should provide the following in a Data Availability para-  
 121 graph at the end of the Materials and Methods section of their submitted manuscript:  
 122 data description, name(s) of the repositories, and digital object identifiers (DOIs) or  
 123 accession numbers. For some public repositories, the DOIs or accession numbers are  
 124 not provided until the manuscript has been accepted; this should be noted in the cover  
 125 letter. In these cases, authors are responsible for providing the DOIs or accession  
 126 numbers at the proof stage.

127 **Accession number(s).** A paragraph dedicated to new accession numbers for  
 128 nucleotide and amino acid sequences, microarray data, protein structures, gene ex-  
 129 pression data, and MycoBank data should appear at the end of Materials and Methods  
 130 with the paragraph lead-in “Accession number(s).”

## 131 ACKNOWLEDGMENTS

132 Statements regarding sources of direct financial support (e.g., grants, fellowships, and  
 133 scholarships, etc.) should appear in the Acknowledgments. A funding statement in-  
 134 dicating what role, if any, the funding agency had in your study (for example, “The  
 135 funders had no role in study design, data collection and interpretation, or the deci-  
 136 sion to submit the work for publication.”) may be included. Funding agencies may

137 have specific wording requirements, and compliance with such requirements is the  
138 responsibility of the author. In cases in which research is not funded by any specific  
139 project grant, funders need not be listed, and the following statement may be used:  
140 “This research received no specific grant from any funding agency in the public, com-  
141 mercial, or not-for-profit sectors.” Statements regarding indirect financial support (e.g.,  
142 commercial affiliations, consultancies, stock or equity interests, and patent-licensing  
143 arrangements) are also allowed. It is the responsibility of authors to provide a general  
144 statement disclosing financial or other relationships that are relevant to the study.  
145 Recognition of personal assistance should be given as a separate paragraph, as should  
146 any statements disclaiming endorsement or approval of the views reflected in the  
147 paper or of a product mentioned therein.

148 **Please read the [Instructions to Authors](#) or browse the [FAQs](#) for further de-**  
149 **tails.**

## 150 REFERENCES

1. Aivazian D, Serrano RL, Pfeffer S. TIP47 is a key effector for Rab9 localization. *The J. Cell Biol.* 2006; 173(6):917–926. <http://jcb.rupress.org/content/173/6/917>.
2. Cox CS, Brown BR, Smith JC. *J. Genet.* In press; .
3. Falagas ME, Kasiakou SK. Use of international units when dosing colistin will help decrease confusion related to various formulations of the drug around the world. *Antimicrob. agents chemotherapy* 2006; 50(6):2274–2275.
4. Forman MS, Valsamakis A. Specimen collection, transport, and processing: virology. In: Murray PR, Baron EJ, Pfaller MA, Jorgensen JH, Tenover FC, Tenover RC, editors. *Manual of Clinical Microbiology*, 8th ed. Washington, DC: ASM Press; 2003.p. 1227–1241.
5. Green PN, Hood D, Dow CS. Taxonomic status of some methylophilic bacteria. In: *Microbial growth on C1 compounds. Proceedings of the 4th International Symposium.* American Society for Microbiology Washington, DC; 1984. p. 251–254.
6. Winnick S, Lucas DO, Hartman AL, Toll D. How do you improve compliance? *Pediatr.* 2005; 115(6):e718–e724.