

MSURJ

◆ McGill Science Undergraduate Research Journal ◆

Journal Guidelines 2009-2010

Information for authors, editors, and the public

Last revised: September 15, 2009

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For authors, editors, and the public

The 2009-2010 mSURJ Committee is:

Editors-in-Chief

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Daniel Ting

Managing Editor

Eric Eckbo

Copy Editor

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Assistant Editor

Neil Issar

Faculty Advisors

Victor Chisholm, Faculty of Science Advisor
(Office for Undergraduate Research in Science)

Board of Editors

TBA

Last revised: June 27, 2009

1. ABOUT MSURJ

Despite the importance of effective communication in science, most students do not participate directly in the publication process as part of their undergraduate education. The McGill Science Undergraduate Research Journal (mSURJ) addresses this need by providing undergraduates with the opportunity to share their achievements with a diverse research community. Our competitive selection process unites student researchers, student editors, graduate students and faculty supervisors in producing peer-reviewed academic articles. As such, mSURJ is a training experience for students to present a clear, engaging account of their work. **Article submissions are due January 3, 2010.**

The editorial board is composed of undergraduate students from various disciplines with the mandate to conduct a formal editorial evaluation of all submissions. Our editors are involved in the solicitation of research articles, the coordination of the peer-review process and ensuring that all submissions comply with mSURJ guidelines. **Editorial board applications are due October 2, 2009.**

Our guidelines describe the journal framework and provide authors, editors and the public with all relevant information to get involved. Please contact us for any other questions or concerns.

2. INFORMATION FOR AUTHORS

We seek submissions that classify as research articles, research letters, or something in-between; review articles are given a slightly lower priority. In addition to these reports, we publish a limited number of non-peer reviewed interest pieces such as interviews with prominent scientists, editorials or feature articles which offer captivating perspectives on issues in science. Submissions are welcomed from any student or collaborative team, including honours thesis work, independent studies, research assistanceships, summer research positions, and on-going projects.

Instructions for authors

- **Consider** if any research you have been or currently are engaged in is suitable for mSURJ:
 - Read through the mSURJ guidelines, with particular attention to the editorial policies (see section 3).
 - Inform co-authors of your intentions to submit an article, direct them to these guidelines and obtain their consent. The consent form, along with the article, must be received before **11: 59 p.m., January 3, 2010**
- **Contact us** with your intention to submit an article by **November 30, 2009**:
 - Submission of an abstract is highly recommended; however, brief documents outlining the scope of the article will be accepted where appropriate.
- **Prepare** a manuscript based on your research:
 - Draft the text according to mSURJ *Structure and Format*, and follow our *Style Rules* (see section 4).
 - Obtain approval from co-authors on the final draft.
- **Submit** by the deadline – **11:59 p.m., January 3, 2010**:
 - Send cover-page, article manuscript, and image attachments via e-mail to mcgillsurj@gmail.com
- **Get involved** in the editorial process when revisions are requested
- **Celebrate** at the journal launch event right before Winter term finals!

Eligibility

Articles eligible for publication must meet the following criteria:

- i. The research reported in the article must be carried out during a student's undergraduate career at McGill, in the context of collaborating with an affiliated McGill professor.
- ii. All authors or co-authors must review the mSURJ Journal Guidelines and indicate their consent to have the article submitted (especially as regards Authorship and Rights).
- iii. The complete manuscript, cover-page, and consent form must be received by the submission deadline.

Authorship and Rights

Authors retain all rights to their research work. Articles may be submitted to and accepted in other journals subsequent to publishing in mSURJ. Our only condition is that articles cannot be used in another undergraduate journal. Authors must be aware, however, that professional journals may refuse articles submitted or accepted elsewhere—mSURJ included. mSURJ reserves the right to refuse any submission.

Consent

Research carried out in collaboration with professors and other students necessitates that all authors approve of submitting the article. We recommend that the student and the supervising professor share responsibilities throughout the submission and editorial process, though the initiative should be the student's own. We require that each professor communicates his or her consent for the student to engage in the submission process.

(Complete information available at: <http://msurj.mcgill.ca/msurjconsentform.pdf>)

3. EDITORIAL POLICIES

Editorial Board

The mSURJ editorial board initiates and conducts a formal editorial evaluation in collaboration with the student author, his or her supervisor, and selected peer-reviewers. Editors gain valuable experience of handling articles and engaging with authors in developing scientific articles in collaboration with other researchers.

Undergraduates from any department, school, or program at McGill University are encouraged to apply as editors. We seek to build a diverse board composed of students from various scientific backgrounds and interests. Twelve (12) undergraduate students along with two editors-in-chief, a managing editor, and an assistant editor sit on the committee. Only undergraduates studying at McGill University may hold any editorial position and preference will be given to students enrolled in B.Sc. or B.A. & B.Sc. programs.

Instructions for applicants

- **Get familiar** with the mSURJ mission, the journal guidelines, and our past issues (at msurj.mcgill.ca)
- **Produce** two brief items (fewer than 500 words each):
 - A letter of intent detailing commitment and relevant experience. Optionally a CV can be included.
 - A review of an article published in a previous issue of mSURJ, critiquing its content, style, and organization.
- **Send** all requested material by the deadline—11:59 p.m., October 2nd, 2009, via application form at site (at <http://msurj.mcgill.ca/apply.php>)
- **Demonstrate** leadership throughout the editorial process—the mSURJ committee will choose members of the editorial board as next year's editor-in-chief, managing editor, and copy editor!

Editorial Policies

General criteria

Above all, mSURJ seeks to publish well-written articles which demonstrate scientific acumen while remaining accessible to a broad readership outside the specific discipline. We encourage our student contributors to write engaging, non-technical manuscripts. mSURJ accepts articles based on the following criteria:

- Clarity, organization, and style.
- Presentation and interpretation of results.
- Motivation of the study based on literature.
- Contribution to advancing the field of study.

Peer-review

mSURJ considers the peer-review system an essential tool in manuscript selection. Its expedience is twofold:

- i. It allows the board to reach informed decisions based on a fair, consistent assessment of the article.
- ii. It strengthens the quality of submitted work by identifying specific areas requiring improvements.

As such, and to ensure instructive reviews, peer-reviewers are chosen with care. Authors must identify three (3) potential reviewers at McGill University who are knowledgeable in the particular field. Graduate students may also be included as reviewers; in fact, choosing a graduate student often yields a mutually-beneficial academic experience. At least one of the reviewers should be a professor or recognized expert in the field. Co-authors or individuals who work under the same faculty supervisor are not eligible to be reviewers. Note: it is imperative that reviewers *do not* contact reviewers prior to or during the review process, even if the aim is to confirm their availability.

Ultimately, copies of the original manuscript will be sent to at least two reviewers—one recommended by author, and the other selected independently.

Anonymity

The evaluation process is anonymous. In order to ensure an impartial and objective assessment, the names of the reviewers are not released to authors. Conversely, mSURJ removes any authorship information on copies of the manuscripts sent to reviewers.

Review Process

All received submissions are first read and evaluated individually by each board member, on the basis of the listed criteria (see above). Rejected submissions that do not meet the criteria are returned to the authors, with a point-form evaluation of the manuscript.

The short-listed articles undergo the peer-review process, as a second evaluation stage. Copies of the manuscript are sent to the selected reviewers. Upon receipt of the reviews, the comments are combined with those of the editorial board to reach a decision over the article's suitability for publication. Regardless of the outcome, reports of reviewers are forwarded verbatim to authors, along with a point-form evaluation of the article evaluation of the article justifying the decision. Three decisions are possible:

- i. Rejection**
 - Typically justified by outstanding issues noted by reviewers.
- ii. Rejection with possibility of re-submission**
 - Authors are recommended to re-submit their manuscript for the next issue of mSURJ, after applying further work to improve its overall worth.
- iii. Conditional Acceptance**
 - Manuscripts are returned to authors with suggestions for improvements. After criticism has been addressed in the form of revisions, authors are required to re-submit their articles.

Final articles are approved by the Faculty Advisor. Accepted manuscripts undergo grammatical verifications. Subsequently, electronic proofs are sent to the authors for approval, with the expectation of a quick response. Layout discrepancies and other outstanding issues are to be reported at this stage, before the journal goes to press.

(See the detailed calendar of dates on page 9)

4. MANUSCRIPT FORMAT & STRUCTURE

mSURJ format and structure guidelines are deliberately concise to describe the essential elements for submitting article manuscripts. Authors can use creativity in choosing section titles and content, combining sections, or adding subsections, as he or she sees fit. A common example is combining the results and discussion sections or discussion and conclusion sections.

Manuscript citations and references may be submitted in any style (for example, research in psychology typically follows APA rules). However, and authors may find it easier to submit their original article using the style rules below, and authors must ensure that the final print version adheres to the mSURJ style rules. We recommend that authors use EndNote® in preparing their manuscripts, available free to the McGill community from <http://elms04.e-academy.com/mcgill/>

Importantly, authors should focus on submitting clear and well-written manuscripts. That said, mSURJ welcomes any questions that may arise while drafting the manuscript in accordance to these guidelines. Anything beyond basic editing is reserved for the editorial process, *after* an article has been conditionally accepted.

Format

Cover page

The undergraduate author must include all of the following, in order:

- Full name of corresponding author.
- Major(s)/ minor(s)/ degree expected or received (CV, etc. are unnecessary).
- E-mail and telephone.
- Names, contact information and departmental affiliation for three (3) potential reviewers (see page 4).
- Full title of article.
- Abridged title (more or less 5 words).
- Number of figures and tables, if applicable.
- Total number of pages (omitting cover page).

Document

- Total length is 1500-3500 words (6-14 pages excluding figures and cover page).
- Margins are 1" on all sides, on 8.5"×11" paper.
- Text is in Times New Roman, 12-point font, and double-spaced.

Figures, Tables, and Graphs

We suggest using figures to communicate the main findings of the article. A maximum of 6 figures, charts, and tables is allowed, with the assumption that they will be informative and illustrative rather than mere data.

- The minimum resolution of submitted images must be of 300 DPI, in a .tiff, .png, or .jpg format
- Images must be sent separately, as attachments
- Captions are in Times New Roman, 10-point font, and single-spaced.

Style Rules

General

The official language of mSURJ is English.

Overall and default rules follow the standards of style of the *Chicago Manual of Style* (15th edition).

Citations

Citations are provided in-text, in parentheses instead of brackets. Acceptable examples are:

- (Author yr#), Author (yr#), (Author1 and Author2 yr#), Author1 et al. (yr#), (Author1 et al. yr#),
(Author yr#, p. #), or (Author yr#, p. #-#)

References

References are listed alphabetically by first-author surname. Acceptable examples are

Journal articles:

- Herschfus, J. A. 2002. Bronchial Decongestion: experimental techniques. *Applied Allergens* 192(4): 12–22.
- Bell, X., Emmett, D. and Grayson, F. 1995. Identifying Venomous Amphibians. *Herpetologia* 27:167–89.

Book articles:

- Feike, T. 2000. Inhibitory value of dopamine blockers. In *Pharmaceuticals and Industrial Design*. T. M. Nadranathan and Y. Gohe (eds.). 121–134. New York: New York University Fake Press.

Entire books:

- Sheppard, T. 1997. *Climatic Variability*. T. Mann (ed.). Cambridge, MA: MIT False Press.
- _____. 2001. *Climatology and Further Investigations*. Cambridge, MA: MIT False Press.

Conference proceedings:

- Cliff, B. 2003. Deep Oceanic Acidity: recent findings in a benthic sampling. Paper presented at The Royal Oceanography Society 11th Annual Meeting, Melbourne, Australia, 22 June 2003.

Dissertations:

- Parson, W. 2006. On the Collisions of Particles, Waves, and Dualities. PhD diss., Utrecht University.

Figures, Tables, and Graphs

- In-text mention is capitalized and un-abbreviated (i.e., “Figure #” or “Table #”).
- Add titles, labels and units, and external sources (if any).
- Captions are 60 words or less. Each caption begins with the text “Figure #.” or “Table #.” in bold.

Numbers, Units, and Equations

- Equations must be submitted as graphic files, attached in 300DPI .tiff or .jpg format.
- In-text mention of equations is “Equation (1)” instead of “Eq. 1.”
- Decimals include leading zeros (e.g., 0.228 instead of .228).
- Common statistical variables are italicized (e.g., *n*, *f*, *R*, and *p*).
- Greek letter variables and units are not italicized (e.g., 10 µm).
- Units are abbreviated and preceded by a space, except percentages (e.g., 36 in. and 7,200,030 k and 95%).
- There are no spaces before and after numbers and signs (e.g., $p=0.005$ or 8.05 ± 0.1 or $n<2,000$).

Miscellaneous

- Acronyms are spelled out in the first instance, and are only used if the term is repeated three times or more in the article.
- Footnotes and endnotes should be kept to a minimum.
- Writing style should use the active instead of the passive voice.

Structure

Title

General, non-exclusive wording that identifies the important finding

Author information

Names (line 1): Author and Co-Author(s).

Details (line 2+): Department, University, Address, Province or State, Country, Postal or Zip code.

- Identify corresponding author with an asterisk "**."
- Use numbered superscripts to link author names and departmental affiliations.
- An acceptable example;

An Improved Structure for Deoxyribose Nucleic Acid

J.H.C. Crickson*¹, Your name here²

¹Structural Biology Research Division, 10.5 Helix Road, Cambridge, ON, Canada D3D3D3

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Abstract

To the readers, the abstract is often used to gauge their level of interest in the article. Authors must therefore ensure that their abstract effectively communicates their main findings in a clear, well-organized fashion, and without exceeding 250 words. We recommend dividing the abstract into four sections (Introduction, Results, Discussion, Methods) that are logically connected.

Keywords

4-6 terms that put forward the article content. In addition, these should be briefly defined (20 words or fewer) for use in a side-bar to inform our general scientific audience.

Body

Introduction Background, motivation, and significance of the research. This excludes mention of content from later sections. Use in-text citations to reference relevant literature.

Results Data acquired and analytical tests used, limited to the most relevant observations. Organize results into illustrative figures or tables, each with descriptive captions of less than 60 words.

*** Discussion and Conclusion deserve care and attention, and should represent a fair proportion of the article ***

Discussion Interpretation of the results in the context of the driving hypothesis.

Conclusion Significance of the research reported, its implications in the field at-large and its limitations

Methods The approach to the problem; this should emphasize the work's strengths and advantages, rather than simply describing experimental protocols.

References

Strong priority should be given to peer-reviewed articles and books which are published or in-press.

Only published references may be included. If a work was only submitted, an in-text mention is sufficient

- References count as part of the manuscript text.
- (for Style Rules, see 'References' below)

Acknowledgements

Concise and professional, including non-author collaborators, assistants, and sources of grants and funding.

5. 2009-2010 SCHEDULE

<u>item</u>	<u>date</u>	<u>authors</u>	<u>editors</u>	<u>public</u>	<u>reviewers</u>
> Call for Submissions & Call for Editors	Sept. 8	x	x	x	
> Editor application deadline	Oct. 2, 11:59 p.m.		x	x	
Review applications; schedule selected interviews	Oct. 13 – Oct.14		x		
Interviews	Oct. 15 – Oct.19		x		
Final editorial board selection	Oct. 22		x		
<i>OURS/ Undergraduate Research Conference</i>	TBA			x	
<i>Science Charity Fair</i>	TBA			x	
> Abstract and/or title submission deadline	Nov. 30, 11:59 p.m.	x		x	
> Article submission deadline	Jan. 3, 11:59 p.m.	x		x	
Review submissions and short-list articles	Jan. 5-8		x		
Article selection finalized	Jan. 15		x		
Divide articles among teams	Jan. 15-18		x		
Send articles to invited reviewers	Jan. 18		x		x
> Editing period	Jan. 15 - Feb. 16		x		
Team meetings and editing	Jan. 15 - Jan. 30		x		
Reviewer's feedback & comments due	Feb. 9		x		x
Return articles to authors	Feb. 16	x	x		
Article completion deadline	Mar. 6	x	x		
> Journal launch & reception event	March 23-27	x	x	x	x