

Neuron Glia Biology

Aims And Scope

Neuron Glia Biology publishes high-quality original research articles reporting significant findings in the field of neuron–glia interactions, but reviews and concise summaries of relevant research are welcome. The scope of interest encompasses studies on cell–cell communication between cells in the brain and peripheral nervous system, including glial–glial, neuron–neuron, neuro–glia vascular or immune system interactions. Studies of cellular or molecular mechanisms of cell–cell communication during development, information processing, and disease, via diffusible messenger molecules, growth factors and cytokines, membrane receptors, channels and transporters, cell adhesion and extracellular matrix molecules are of interest. Methodological approaches including ultrastructure, live cell imaging, electrophysiology, biochemistry, molecular biology, transplantation, to investigate such biological processes as synaptogenesis, synaptic plasticity, nervous system development, morphogenesis, process outgrowth and regeneration, information processing, myelination, and activity-dependent communication between neurons and non-neuronal cells are appropriate. Research studies with medical implications are welcome, provided they are based on new findings in basic science. Issues are printed on a bimonthly interval, and individual papers are published continuously on-line ahead of print. There are no figure or page charges.

Originality and Copyright

To be considered for publication in *Neuron Glia Biology* a manuscript cannot have been published previously, nor can it be under review for publication elsewhere. Papers with multiple authors are reviewed with the assumption that all authors have approved the submitted manuscript and concur in its submission to *Neuron Glia Biology*. A Transfer of Copyright Agreement must be executed before an article can be published. Government authors whose articles were created in the course of their employment must so certify in lieu of copyright transfer. Authors are responsible for obtaining written permission from the copyright owners to reprint any previously published material included in their article.

Manuscript Submission and Review

Neuron Glia Biology accepts electronic submission of manuscripts, allowing authors to benefit from faster review and earlier, online publication. Authors should submit their manuscripts online to <http://mc.manuscriptcentral.com/ngb>. Authors who are unable to submit online should contact either of the Editor-in-Chiefs for assistance. For the purposes of reviewing, high-resolution graphics are not necessary; authors may submit low-resolution or pdf versions, but should ensure that they are of sufficient quality for viewing on-screen or by laser printing. On acceptance, high-resolution versions should be submitted, along with high-quality hard copies, to the publishing office. Full instructions and Help function are available on the site.

Each manuscript will normally be reviewed by at least two referees with relevant scientific experience. Authors may suggest appropriate reviewers, but final selection of referees will be made by the Editor. Reviewers are asked to evaluate manuscripts for their scientific merit and clarity of presentation and to voice any concerns related to the welfare of animal and human subjects. Every effort will be made to notify authors of the reviewers' recommendations within four/five/six weeks of receipt of a manuscript.

Manuscript Preparation and Style

Manuscripts must be in English and typed double-spaced. Allow margins of at least 1" (25 mm); do not hyphenate words at the end of lines and do not justify right margins. Numbers should be spelled out when they occur at the beginning of a sentence; use Arabic numerals elsewhere. Abbreviations should be used sparingly and non-standard abbreviations should be defined at their first occurrence. Metric system (SI) units should be used. Manuscripts that do not conform to the style of *Neuron Glia Biology* will be returned without review. Authors of accepted manuscripts will be requested to provide the final text both as hard copy and on diskette. The diskette should be formatted in Word for Macintosh or IBM-compatible computers.

Manuscript Elements and Order

TITLE PAGE: The title should be concise, informative, and free of abbreviations, chemical formulae, technical jargon, and esoteric terms. This page should include (a) the article's full title, (b) names and affiliations of all authors, (c) the name, mailing address, email address and telephone number of the corresponding author, (d) the address for reprint requests if different from that of the corresponding author and (e) a list of the number of manuscript pages, number of tables, and number of figures.

ABSTRACT: A summary of less than 200 words communicating the primary findings and significance of the research.

KEY WORDS: Up to five words for the purposes of indexing, which are not included in the title.

INTRODUCTION: State the relevant background to the study to provide the necessary information and context to enable non-specialists to appreciate the objectives and significance of the paper.

OBJECTIVE: A single paragraph stating the hypothesis to be tested, or the observation or measurement to be made, and the methodological approach that will be taken to achieve the aims.

METHODS: Materials and procedures should be described in sufficient detail to enable replication. Results should not be included in the Methods section. This section should be brief but provide sufficient information to permit others to replicate the study. Pertinent details of species, apparatus and equipment, procedures and experimental design should be described. All experiments involving human subjects must be conducted in accordance with principles embodied in the Declaration of Helsinki (Code of Ethics of the World Medical Association). Experiments involving animal subjects must conform to the principles regarding the care and use of animals adopted by the American Physiological Society and the Society for Neuroscience. The Editor may refuse papers that provide insufficient evidence of adherence to these principles.

RESULTS: This section may contain subheadings. Authors should avoid mixing discussion with the results. The results should be presented clearly and concisely, using Figures and Tables to summarize or illustrate the important findings.

CONCLUSIONS: The main conclusions that obtain directly and unambiguously from the results should be provided in one to four sentences in outline form. Each conclusion is listed as a declarative sentence in a bulleted paragraph, with one sentence for each conclusion. These are a simple statement by the author of the facts obtained from the results, without any interpretation, extrapolation, or equivocation.

DISCUSSION: Interpretation of the conclusions with respect to the hypothesis and the significance to the field should be discussed. Careful consideration of the conclusions for accuracy and alternative interpretation, and possible conflicts or resolution of conflicts in the field is encouraged. Limited speculation and directions for future research can be included.

ACKNOWLEDGEMENTS: Use a separate page to recognize the contributions of individuals and supporting institutions.

REFERENCES: The Harvard (author-date) system should be used in the text and a complete list of References cited given at the end of the article. Unpublished data, personal communications, and manuscripts submitted for publication should be cited in the text and the supporting material submitted with the manuscript. In a text citation of a work by more than three authors cite the first author's name followed by *et al.* (but the names of all of the authors should be given in the References section). In the text, references should be cited in the following styles: Hagge (2001); (Stevens *et al.*, 2002); (Sanes & Scheller, 1997; Chahal *et al.*, 2002). The alphabetical list of references begins a new page, and must be typed double-spaced. Each in-text citation must have a corresponding reference and *vice versa*. List works by different authors who are cited within the same parentheses in chronological order, beginning with the earlier work. Journal titles should not be abbreviated. Only published articles and articles in press should appear in this list. Responsibility for the accuracy of references cited lies with the authors. If the Digital Object Identifier (DOI) is known, it can be given at the end of the citation entry.

Examples:

Journal article

Dudek, S.M. and Fields, R.D. (2002) Somatic action potentials are sufficient for late-phase LTP-related cell signaling. *Proceedings of the National Academy of Sciences* 99, 3962–3967; doi:10.1073/pnas.062510599.

Book chapter

Sanes, J. R. and Scheller, R. H. (1997) Synapse formation: a molecular perspective. In Cowan, W. M., Jessell, T. M. and Zipursky, S. L. (eds) *Molecular and Cellular Approaches to Neural Development*. Oxford University Press, pp. 179–219.

Book

Cowan, W. M., Jessell, T. M. and Zipursky, S. L. (eds) (1997) *Molecular and Cellular Approaches to Neural Development*. Oxford University Press.

Work in press

As above, but no year of publication or volume number.
Bailey, A. Function of galectins. *Science* (in press).

Theses

Try to avoid citing these in the main text – cite peer-reviewed primary publications instead.

Hagge, D. A. (2001) An improved *in vitro* model for the study of *Mycobacterium leprae*/Schwann cell interactions. PhD Thesis, Louisiana State University.

Abstracts

Try to avoid citing these in the main text – cite peer-reviewed primary publications instead.

Chahal, Y., Rouach, N., Pébay, A., Mème, W., Cordier, J., Glowinski, J., Giaume, C. and Tencé, M. (2002) Shingosine-1-phosphate, a novel inhibitor of gap junctional communication in striatal astrocytes. *FENS Abstracts* vol. 1, A182.7, p. 458.

Web sites

Supplemental data for Stevens *et al.* (2002).
<http://www.neuron.org/cgi/content/full/36/5/855/DC1>

FIGURES: The number of figures should be the minimum necessary to make the essential points of the paper, and the copies submitted with the manuscript must be of sufficient quality to enable reviewers to evaluate the data. Figures in which colour is required to communicate the data will be published without additional cost to the authors. Authors should avoid using colour unnecessarily.

TABLES: Tables should be numbered consecutively with Arabic numerals and each should be typed double-spaced on a separate sheet. All tables are to be grouped together after the REFERENCES. A short explanatory title and column headings should make the table intelligible without reference to the text. All tables must be cited and their approximate positions indicated in the text.

FIGURE LEGENDS AND TABLE CAPTIONS: Each legend or caption should begin with a brief description of the conclusion or observation provided in the Figure or Table. These should be submitted as a separate section after the References.

FIGURES AND LEGENDS: Hard copies of Figures should be supplied no larger than 8" x 10" (approx. 200 mm x 250 mm) and must be camera-ready. Photographs for halftone reproduction must be on white glossy paper. Figures should be composed to occupy a single column (83 cm) or two columns (170 cm) after reduction. Diagrams and illustrations must have a professional appearance. To assure legibility, letters, numbers, and symbols on figures should have a minimum height of 1 mm when reduced. Photomicrographs must include a calibration bar; if symbols are used on micrographs, they must contrast sufficiently with the background to be clearly visible when printed. All figures must be identified on the back with the short title of the paper, Figure number, and Figure orientation (top or bottom). Preferably, Figures should be mounted on heavy sheets of the same size as the manuscript. Three complete sets of figures should be carefully packaged in protective envelopes, one to accompany each copy of the manuscript. Each Figure must be cited and its approximate position clearly indicated within the text. Figures must be numbered consecutively with Arabic numerals and be accompanied by a descriptive legend typed double-spaced on a separate sheet. The legends, collected at the end of the manuscript, should describe concisely the Figure and identify any symbols and/or calibration bars. All electronic versions of figures should be submitted as TIFF files at 100% of a suitable final size. The color should be 300 dpi CMYK. Halftone and Grey-scale figures should be 300 dpi, and Mono images should be 600 dpi.

Copyediting and Page Proofs

The publisher reserves the right to copyedit manuscripts to conform to the style of *Neuron Glia Biology*. The corresponding author will receive pdf copies of page proofs for final proofreading. No rewriting of the final accepted manuscript is permitted at the proof stage, and substantial changes may be charged to the authors.

Offprints

A form will accompany the page proofs allowing orders for the purchase of offprints. Offprint requirements of all co-authors should be included on this form.

Publication Policy and Schedule

Articles published in *Neuron Glia Biology* should be original works and not under consideration of being published, or published, elsewhere. On acceptance, articles may be subject to copy-editing and other preparation for publication. Articles will be published online ahead of the print version, as soon as they are in their final, definitive format.

Gene Array Data and Sequences

Movies and supplemental on-line material

Neuron Glia Biology Online gives authors the opportunity to include data that would be impossible or impractical to include in the printed version. These data might substantially enhance the importance of the research and might also be of benefit to readers. Authors are encouraged to include data such as videos, 3-D structures/images and any other supplementary data too large for print duplication. All supplementary material must be submitted with the original manuscript.

Reviews

Proposals for reviews or concise meeting reports should be forwarded to the Editor.

NEURON GLIA BIOLOGY

VOLUME 5 · ISSUE 1–2 · 2009

CONTENTS

- 1 Those enigmatic NG2 cells . . .
William D. Richardson and R. Douglas Fields
- 3 Electrical signalling properties of oligodendrocyte precursor cells
Yamina Bakiri, David Attwell1 and Ragnhildur Karádóttir
- 13 Kainate receptors and signal integration by NG2 glial cells
Maria Kukley and Dirk Dietrich
- 21 Integration of NG2-glia (*synantocytes*) into the neuroglial network
Rebekah Wigley and Arthur M. Butt
- 29 Is activity regulation of late myelination a plastic mechanism in the human nervous system?
Fredrik Ullén

Cambridge Journals Online

For further information about this journal please

go to the journal web site at:

journals.cambridge.org/ngb

CAMBRIDGE
UNIVERSITY PRESS