The Journal of Immunology

Information for Authors

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ABOUT THE JOURNAL OF IMMUNOLOGY

Journal Facts:

• Publisher: The Journal of Immunology (The JI) is owned and published by The American Association of Immunologists, Inc. (AAI)
• Editor-in-Chief: Pamela J. Fink, Ph.D., eic@aai.org
• Editorial Board: The Journal of Immunology Editorial Board is included in each issue. All editors are practicing scientists.
• Impact factor: 5.362 (2013 Journal Citation Reports)
• Citations: The JI is cited more than any other immunology journal (2013 Journal Citation Reports)
• Number of research articles published/year: 1,173 (2014)
• Number of pages published/year: 12,200 (2014)
• Over 1.8 million page views per month
• Over 395,000 PDF downloads per month
• Publication schedule: Printed and posted online twice each month
• Issue dates: 1st and the 15th of each month
• Average time from submission to initial decision (full-length manuscripts): 30 days (2014)
• Average time from acceptance to print: 7.4 weeks (2014)
• Acceptance rate: 41% for full-length papers, 11% for Cutting Edge papers (2014)
• Online ISSN: 1550-6606 Print ISSN: 0022-1767

JOURNAL SCOPE AND CONTENT

Full-Length Articles: The JI publishes peer-reviewed articles describing novel findings in all areas of experimental immunology, including both basic and clinical studies. Manuscripts are published in the following sections:

- Allergy and Other Hypersensitivities
- Antigen Recognition and Responses
- Autoimmunity
- Clinical and Human Immunology
- Immune Regulation
- Immune System Development
- Immunogenetics
- Immunotherapy and Vaccines
- Infectious Disease and Host Response
- Innate Immunity and Inflammation
- Molecular and Structural Immunology
- Mucosal Immunology
- Transplantation
- Tumor Immunology
- Novel Immunological Methods

Novel Immunological Methods

(see P. Fink. 2014. Introducing the Novel Immunological Methods section. J. Immunol. 192: 1339.) Manuscripts submitted to the Novel Immunological Methods section should provide a new approach to important immunological problems. The manuscript should validate the technique, reagent, or genetically manipulated line of mice (and provide data on that) and indicate their utility for solving an immunologically interesting problem, but it is not necessary for the manuscript to solve that problem. The manuscript is evaluated on whether the technique, reagent, or line of mice is better than what is currently available and could therefore advance the field, as well as the usefulness of the technique, reagent, or line of mice to the field.

Descriptions of new reagents, research techniques, or clinical case reports usually are appropriate only to the extent they provide innovative insight into unresolved problems or represent major breakthroughs.

The JI will not publish descriptive manuscripts that report the identification of epitopes recognized by B or T cells, unless such identification can be considered of unusual immunological significance. The JI usually will not publish the definition of peptide-binding motifs for previously uncharacterized MHC products, regardless of species or method used. Similarly, The JI usually will not publish surveys of possible or actual epitopes from pathogens not previously examined for T cell epitopes. Authors should address the immunological significance explicitly and convincingly when submitting a paper that may fall into the above categories. Those wishing to report the identification of epitopes may do so at the Immune Epitope Database and Analysis Resource (http://www.immuneepitope.org/).

The JI will consider for publication comparative analysis of proteins of immunological interest (intra- or inter-species comparisons) only if such manuscripts transcend a simple descriptive examination and reveal aspects of significance to evolution and/or function of such proteins that are not intuitively obvious.

The JI will publish manuscripts that describe the characterization of the three-dimensional structure of antibody-defined epitopes, antigen–antibody, or peptide–MHC complexes only if such structures reveal features that are unique in an immunologically relevant manner. The JI usually will not publish structures of new MHC allelic products not previously crystallized, homologs from previously uncharacterized species, or peptide–MHC complexes composed of known MHC allelic products but with different peptides. Reports of the three-dimensional structures of allergens or other antigens likewise also fall under this description. The editors consider the atomic structure of antigen–antibody, MHC–peptide, and TCR–MHC complexes sufficiently well established to insist on immunological relevance as a criterion for publication in The JI.

Brief Reviews: The JI publishes a small number of invited reviews on a regular basis. These reviews are four to six journal pages in length, including illustrations and references. They cover a focused
area on the advancing edge of immunology and provide a balanced view of current research that can be understood by researchers outside of that specialty. Authors interested in submitting an article to *Brief Reviews* should submit a proposal, including an outline of the proposed review, by e-mail to the Editor-in-Chief at eic@aai.org.

**Cutting Edge Articles**: *Cutting Edge* is the rapid publication section of *The JI*, presenting short reports describing significant advances in an area of immunology. Manuscripts submitted for consideration in this section should present scientifically sound and novel research in a clear and concise fashion and contain conclusions of unusual interest to immunologists that are justified from the data presented. Chief criteria for acceptance are scientific novelty and quality, originality, clarity, and conciseness. In addition to research articles, the *Cutting Edge* section publishes invited brief commentaries on controversial subjects of broad interest to immunologists.

**Immunology Notes and Resources**: This is a feature where items of general interest to the immunology community may be published, such as articles on nomenclature or other significant items that may impact scientific research. These articles are published at the discretion of the Editor-in-Chief, who may seek advice from other editors or experts in the field. Submissions can be made by e-mail to the Editor-in-Chief at eic@aai.org.

**In This Issue**: A small number of papers regarded by reviewers and editors as the top 10% in their field are highlighted in this section.

**Letters to the Editor**: The Editor-in-Chief invites brief letters (250 words or less) of general interest, commenting on work published in *The JI* within the previous 3 months. A limited number of letters will be selected for publication. The authors of the original work will be invited to respond, and both the original letter and the authors’ response will be published together. If you are interested in commenting on a published paper, e-mail the Editor-in-Chief at eic@aai.org.

**Pillars of Immunology**: In the first issue of each month, *The JI* reprints papers regarded as classics in the field. An invited commentary accompanies each reprinted article. Suggestions for significant articles may be made by e-mail to the Editor-in-Chief at eic@aai.org.

**Translating Immunology Articles**: These invited articles highlight immunological discoveries that have led to a treatment, drug, or diagnostic device.

### MANUSCRIPT PREPARATION

**Copyright Transfer**: All manuscripts are considered to be the property of AAII from the time of submission. Should AAII not publish the paper, AAII releases its rights therein at the time the manuscript is returned to the corresponding author.

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The corresponding author, on behalf of all authors, signs a copyright transfer form. Authors of articles written as part of their official duties as employees of the U.S. government are exempt from this requirement for transfer of copyright.

**Archiving in PMC/Europe-PMC**: In March 2011, AAII began a new, free service to authors, to deposit selected manuscripts to PubMed Central (PMC) (See also Editorial Policies, NIH Public Access Policy).

Several funding bodies, including the National Institutes of Health (NIH), Howard Hughes Medical Institute (HHMI), Wellcome Trust and Medical Research Council (MRC-UK), mandate that authors deposit published articles into PMC or Europe-PMC. While these mandates apply to authors, not publishers, the new AAII service will help authors comply with these mandates. On behalf of authors who are funded by NIH, HHMI, Wellcome Trust, and MRC-UK, AAII will deposit all manuscripts to NIHMS or Europe-PMC, as applicable, that begin submission to *The Journal of Immunology* after 10AM (EDT) March 29, 2011 and are ultimately accepted for publication; the author must select this option on the online submission form in order for AAII to do so. AAII will deposit the version of the manuscript that has undergone peer review and has been accepted for publication, before copyediting and formatting.

Most funders mandate that articles be made available to the public in PMC at either 6 or 12 months after publication; manuscripts deposited by AAII will comply with these embargo periods. Authors will receive at least two e-mail notifications from PMC about their manuscripts. Authors must respond to both e-mails, in order for the process to be completed. This free service is not applicable to work that is funded by bodies other than NIH, HHMI, Wellcome Trust, and MRC-UK. Authors funded by other entities that mandate deposition into PMC/Europe-PMC must deposit the accepted version of the manuscript themselves.

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**General Guidelines**: A 12-point serif font, preferably Times New Roman, is required for all text, except within figures. Do not use compressed type font. Double-space entire manuscript; number each line and each page. Each of the following components should begin on a separate page:

1. **The Title Page** must include the full title; a running title (not to exceed 60 characters); each author’s full name as it should be published (first name, middle initial, last name); and the affiliations of all authors and their institutions, departments, or organizations (use the following symbols in this order: *, †, ‡, §, ¶, ‖, #, *#). List the phone number, fax number, and e-mail address of the corresponding author on the title page. (See the “Submit Online” section for information about the corresponding author designation during submission and peer review.)

2. **The Abstract** must be 250 words or less for full-length manuscripts. Reference citations should not be included in the Abstract. The species of animals or species of origin of cells used in the manuscript must be clearly stated in the Abstract. Please ensure that the final few sentences (50 words or less) of the Abstract provide a succinct summary of the main point of the paper.

3. **The Introduction, Materials and Methods, Results, and Discussion sections** should begin on separate pages in that order. Do not combine the Results and Discussion sections for full-length papers.

- For flow cytometry experiments, authors should specify the gating strategies in the Materials and Methods or in the figure legend.
- Authors are encouraged to include the Minimal Information About T cell Assays (MIATA) in the Materials and Methods, the figure legend, or elsewhere as appropriate.

4. **Acknowledgments** appear immediately after the Discussion and before References.
5. Grant support must not be included in the Acknowledgments, but should be cited as a footnote to the title. All funding sources must be disclosed and will be published as a footnote to the title; anonymous or pseudonymous funders are not permitted.

6. References must be numbered as they appear in the text and should refer to primary literature rather than review articles wherever possible. All authors must be listed for each reference. If citations are included in tables or in figure legends, they must be numbered according to the position of citation of the table or figure in the text. Only published papers and papers in press may be included in the References. In press articles, i.e., papers not yet published, must be submitted as online attachments in PDF format at the time of article submission. Note: Do NOT submit as attachment papers that are already published, e.g., manuscripts published ahead of print. Such papers must be incorporated into the References and cited with their DOI numbers and year of publication. Citations of "manuscripts in preparation," "unpublished observations," and "personal communications" must appear parenthetically in the text. Manuscripts "submitted for publication" (i.e., not yet accepted) also are mentioned parenthetically in the text. Written approval by the persons cited in personal communications must accompany the manuscript unless they are also authors of the manuscript submitted to The JI.

Format for references:


Footnotes should be used to designate the source of support, new or special abbreviations used, correspondence address, current address, etc. Footnotes should be numbered consecutively and will appear on the title page, but for submission are grouped together and placed on a separate page between the References and the Figure Legends.

Abbreviations that may be used without definition are provided in the standard Abbreviations list. Spell out nonstandard abbreviations used less than three times. Nonstandard abbreviations used three or more times must be defined in a footnote. Abbreviations and their definitions must be consistent throughout the text.

Tables must be numbered with Roman numerals in order of appearance in the text. All tables must have a title. Table legends are prepared as footnotes to the table and are included with the table. Tables must be in DOC file format. Each table should be submitted as a separate file.

Figure legends must be numbered with Arabic numerals in order of appearance in the text and should include a short title after the figure number. Where possible, symbols and patterns used to distinguish data should be defined in a key placed within the graphic rather than in the figure legend. All figure legends must specify the number of times each experiment was independently performed, as well as the number of animals or replicates in each experimental group. For flow cytometry experiments, authors should specify the gating strategies in the Materials and Methods or in the figure legend.

Figures At initial submission, please submit low-resolution files of the smallest possible size that will convey the needed information. Smaller files can be downloaded more quickly by reviewers and will hasten the review process. Alternatively, a single PDF of text plus figures may be submitted at initial submission. At submission of a revised manuscript, high-resolution figures that meet the following specifications must be submitted. For more information see the TIPS page on the online manuscript submission home page (http://ji.msubmit.net).

- Color: Color figures must be in the RGB color space.
- File Sizes: Figures should not exceed 10 MB (average size is about 2 MB).
- Image Sizes: Figures should be submitted in final print publication size (printed 1:1). Figures may be submitted in print in one of two formats: single column (width from 3.37 to 8.23 cm) or double column (width from 12.65 to 17.1 cm). The single-column format is preferred. Unless the file size is too large, multi-panel figures should be submitted as a single file. Do not draw boxes around figures or figure parts.
- Text and Lines: Text within figures must be 6–8 points in size, except for single letter markers, which may be 12 points. Helvetica or Arial should be used for all figure text (except for the use of symbols). Line widths must be greater than one point thick or they will not be visible on the PDF version of the article.
- Numbering: Figures must be numbered to enable reviewers to know the figure number for each figure.
- File Format: Figures should be in TIFF (better for halftone art, e.g., blots, photographs), EPS (better for line art or monochrome art, i.e., anything that involves sharply delineated lines), or PDF format. PowerPoint files are not suitable quality, as their resolution is too low for print. Please see http://dx.sheridan.com/guidelines/ms_office.html for detailed instructions on converting PowerPoint files to TIFF files.

12. Digital Images: All images submitted to The Journal of Immunology must accurately represent the original data. Original data (digital files, autoradiographs, films, etc.) for all experiments should be fully annotated, secured, and retrievable. The original image file (raw data file) should be kept in an unprocessed and noncompressed file format. Figures that are compiled into multi-figure panels should be kept individually. For additional information, see: http://jcb.rupress.org/content/166/1/11.full, http://jcb.rupress.org/content/172/1/9.full and Digital Images Dos and Don'ts (http://www.jimmunol.org/site/misc/DigitalImageDosAndDonts.pdf).

Although manipulation of images should be kept to an absolute minimum, there are some circumstances when manipulations are necessary. If, however, the quality of an image is too poor to clearly convey the conclusion, the experiment should be repeated.

- Collecting Images: If multiple images are compared to one another, collect each image in the same manner. Any post-collection processing should be applied in a uniform manner to all images. If differences in collection/postcollection are necessary, these need to be described in the legend or Materials and Methods section.
- Brightness and Contrast: Adjustments in brightness and contrast should be avoided if possible. If the brightness or contrast of an image needs minor adjustment, the adjustments must not obscure or eliminate any information and must be applied to the entire image. Significant adjustments should not be made. Do not use excessive contrast that removes background. Always note any adjustment in the legend or Materials and Methods section.
● Cloning Tools: Images should not be “airbrushed” (with Clone Stamp Tool/Clone Brush) to remove “blemishes.” Do not use cloning tools to insert something into an image from elsewhere.

● Gels/Blots: All gels should contain a positive and a negative control, and a set of molecular weight markers. For Western blots, control panels (actin, GAPDH, etc.) should come from a stripped and reprobed membrane of the experimental blot shown. If this is not possible, the control blots should be derived from the same samples and this should be indicated in the figure legend.

● Cropping: Conservative cropping of gels and blots to improve clarity and conciseness may be permitted if the following points are observed:

   ● important bands must be retained
   ● at least several band widths should be retained above and below the cropped band
   ● cropping must be noted in the legend
   ● band(s) of interest must be clearly labeled
   ● molecular weight marker positions should be shown in all gels/blots

● Splicing: Occasionally, images are spliced to rearrange the order of samples for the sake of presentation, such as those in a Western blot. If splicing of data from a single experiment is necessary, draw contrasting (black or white) vertical lines to indicate where the images were joined and state the manipulation in the legend. It would be preferable to rerun the gel so the order is correct. Images from different experiments should not be spliced to form a new single image.

Cover Art: Cover art is selected from images in accepted articles and changes with each issue of The JI. Authors are encouraged to submit color figures with their manuscripts for possible use as cover illustrations. If an image is selected as cover art, the file must have a resolution of at least 300 dpi at a size of 8.5” × 11”.

Estimating Manuscript Length: One printed page in The JI contains approximately 8,000 characters, including spaces. Thus, an eight-page, full-length article would contain approximately 64,000 characters. Each line in a table occupies about 60 characters for a single-column table (120 characters for a double-column table). Figures occupy about 180 characters per centimeter height for single-column figures (360 characters for double-column figures). Determine the total character count for the text of your manuscript and add the character- equivalents for the tables and figures. This will provide a reasonable estimate for the printed length of a manuscript.

Web Links in Submitted Manuscripts: Links to Web sites are permitted only if the information contained on the Web site is not essential to the understanding and assessment of the manuscript or to the ability to repeat the experiments described in the paper. Web links will not be checked after submission for correctness or functionality; it is the responsibility of the author to ensure that the web link is correct.

Human and Animal Use: All studies involving human subjects must be conducted in accordance with the guidelines of the World Medical Association’s Declaration of Helsinki (most recent revision). All animal studies must be performed in compliance with the U.S. Department of Health and Human Services Guide for the Care and Use of Laboratory Animals (or otherwise equivalent guidelines). A statement that human and/or animal studies have been reviewed and approved by an appropriate institutional review committee must be included in the Materials and Methods section of the manuscript.

DEPOSITING IN PUBLIC DATABASES

High-resolution structural data: Any paper submitted to The JI that contains new high-resolution structural data requires an accession number from the Protein Data Bank (PDB) (http://www.rcsb.org/pdb/Welcome.do) and assurance that unrestricted release will occur at or before the time of publication. The accession number should be accompanied by the Web site address of the databank.

For studies containing x-ray protein structures, authors must also submit the PDB Summary Validation Report (http://www.wwpdb.org/validation/validation-reports) (provided after annotation by the wwPDB [http://www.wwpdb.org/]) for review at the time of submission.

Nucleotide sequences: Sequences of nucleotides or amino acids longer than 50 bases/residues should not be presented in the text or in table form, but rather should be submitted as a publication quality figure. Original nucleotide sequences, determined nucleotide sequences encoding reported amino acid sequences, and files of nucleotide sequences derived from high throughput/depth sequencing (RNA-seq, ChIP-seq, MeDIP-seq, etc.) described in the manuscript must be submitted to the appropriate public database (e.g., GenBank [http://www.ncbi.nlm.nih.gov/Genbank/] or the European Nucleotide Archive [http://www.ebi.ac.uk/ena]) at the time of manuscript submission. Trace and short read sequencing data should be deposited at the NCBI Trace Archive (http://www.ncbi.nlm.nih.gov/Traces/home/), NCBI SRA (http://www.ncbi.nlm.nih.gov/sra) or ENA’s Sequence Read Archive (http://www.ebi.ac.uk/ena/submit/read-submission). An accession number and sequence availability are required at the time of publication. The accession number should be accompanied by the Web site address of the databank.

Microarray data: The JI will not publish descriptive manuscripts that report microarray data, unless such information can be considered of unusual immunological significance and/or include functional experiments that provide novel insight into mechanism. As with other scientific approaches, current experimental, quantitation, verification, and statistical analyses are expected. Microarray experiments should be Minimum Information About a Microarray Experiment (MIAME) compliant (for guidelines, see http://www.mged.org/Workgroups/MIAME/miame.html). Whereas limited online space may be available for supplemental tables associated with the manuscript, complete microarray data must be deposited in the appropriate public database (e.g., GEO [http://www.ncbi.nlm.nih.gov/geo/], ArrayExpress [http://www.ebi.ac.uk/microarray-as/ael/], or CIBEX [http://cibex.nig.ac.jp/index.jsp]), and must be accessible without restriction from the date of publication. An entry name or accession number must be included in the paper before publication. The accession number should be accompanied by the Web site address of the databank.

STYLE GUIDE


Abbreviations for references: PubMed (http://www.ncbi.nlm.nih.gov/journals) is the primary source for journal name abbreviations.

Nomenclature: The most current links for nomenclature guidelines are posted online.

Allergen nomenclature: Nomenclature for allergens should be assigned in cooperation with the International Union of Immunological Societies (IUIS) Allergen Sub-Committee. Authors of accepted manuscripts that describe novel allergens will be requested to complete a brief standard form available at IUIS Allergen Nomenclature (http://www.allergen.org/Allergen.aspx).

CD nomenclature: For the purpose of consistency, The JI will follow CD nomenclature. For murine molecules, The JI will follow the nomenclature previously published (J. Immunol. 509).

Chemical names: The JI uses The Merck Index (http://library.dialog.com/bluesheets/html/bi0304.html) and the IUPAC-IUB Commission on Biochemical Nomenclature-Chemical Abstracts (http://www.chem.qmul.ac.uk/iupa/biblog/white.html) as the primary references for proper spelling and style of chemical names.

Chemokine/chemokine receptor nomenclature: The systematic name for chemokines and chemokine receptors should be used. The original name may be given in parentheses if desired. See Cytokine 21:48–9, 2003.

Enzyme nomenclature: Enzyme Nomenclature (http://www.chem.qmul.ac.uk/iubmb/enzyme/) is The JI source for style and spelling of enzyme names.

Gene nomenclature for humans: The HUGO guidelines (http://www.genenames.org/) for gene symbols and nomenclature should be used for naming human genes; nomenclature of genome sequence variants should use the Human Genome Variation Society (HGVS) (http://www.hgvs.org/) nomenclature, summarized at http://www.hgvs.org/mutnomen/. If commonly found in the literature, alternative nomenclature may be used in addition to HGVS nomenclature. Authors should submit all variants included in a manuscript to the relevant database (e.g., http://www.ncbi.nlm.nih.gov/dbvar/content/submission/) for public release if the manuscript is published; the accession number and database URL should be included in the manuscript.

Gene and strain nomenclature for mice: Mouse Genome Informatics (http://www.informatics.jax.org/) is a resource for naming mouse genes. A current listing of inbred strains of mice and rats is also available at Mouse Genome Informatics (http://www.informatics.jax.org/mgihome/nomen/strains.shtml). Authors are also encouraged to deposit their mapping data with the Mouse Genome Database (MGD) (http://www.informatics.jax.org/submit.shtml) before publication and to include the assigned MGD accession numbers in their manuscripts. Information about electronic submission of datasets can be obtained at the Data and Nomenclature Submissions page. Gene symbols should be reserved with MGD in advance of publication.

HLA nomenclature: HLA nomenclature is updated periodically by the World Health Organization Nomenclature Committee for Factors of the HLA System. A recent reference is Hum. Immunol. 64: 919–20, 2003. Annual comprehensive revisions are published in Human Immunology, usually in the spring. See also: http://www.ebi.ac.uk/imgt/hla/.

SUPPLEMENTAL MATERIALS

Supplemental Data:

- Supporting data that are not essential to understanding the material presented in the manuscript may be submitted with the original paper for peer review; however, the print version of the paper must stand on its own without the supplemental material.
- Supplemental material is primarily intended for short videos, large tables, large sequence alignments, or large data sets. Additional supplemental figures and tables that support the interpretation and conclusions drawn in the manuscript may, however, also be submitted for review with the manuscript.
- Supplemental material must be submitted as separate files from the rest of the manuscript during the online submission; select “Supplemental Data” as the “File Type” when uploading the files.
- Apart from videos, all files must be either PDF or Excel file format; multiple PDF files should be combined into a single PDF file.
- For Cutting Edge manuscripts, no more than two supplemental figures and/or tables may be submitted. One of the two allowable Cutting Edge supplemental items can be a description, no more than one page in length, of computational or bioinformatics methods. Methods that are normally found in the body of the article may not be included in this Cutting Edge supplemental item.
- For Full-Length manuscripts, no more than four supplemental figures and/or tables may be submitted.
- Each supplemental figure should comprise no more than a single 8.5" × 11" PDF page, and be large enough to be legible when that page is opened.
- Legends or short explanations must accompany all supplemental figures and videos; no other supplementary text is permitted in full-length manuscripts. Legends should be placed below the corresponding figure in the PDF. Legends for videos should be submitted as a single PDF. Table legends must be prepared as footnotes to the table; all tables must have a title.

*Note: Excel files will be converted to PDFs for the review process only. At publication, the file(s) will be uploaded in the original Excel format.

Videos must be 320 × 480 pixels or smaller for best viewing within a browser. Videos must be no longer than 30 seconds and under 10MB, with no sound or voice-over. Submit videos in MPG or QuickTime format. Change QuickTime file extensions to “.mov” so that Web browsers will recognize the file type and play the movie. Compress videos as much as possible to help control file size. Name videos by order of citation appearance (e.g., video1.mov). Select “Video” as the “File Type” when uploading the files during online submission. Authors will be notified if problems exist with videos as submitted and will be asked to take responsibility for modifications. No editing will be done to videos at the Editorial Office. A legend or short explanation must accompany the video.

Links to the supplemental material will appear in two places in the online journal: in the Table of Contents and in the information box associated with the first page of the full-text article. There will not be any links in the body of the article. In the printed paper, supplemental material will be footnoted the first time mentioned: “The online version of this article contains supplemental material.” Supplemental Materials are posted online as provided by the author.

There is a publication charge of $75 per supplemental figure or table.

CUTTING EDGE MANUSCRIPT PREPARATION

Manuscripts submitted to the Cutting Edge section should conform to the General Guidelines for full-length manuscripts as well as the additional guidelines below:

1. Cutting Edge articles, including figures and references, must fit within four journal pages. Authors should estimate the size of figures and tables and limit the text accordingly. One printed page in The JI contains approximately 8,000 characters, including spaces. Thus, a four-page Cutting Edge article would contain approximately 32,000 characters. The formula for estimating the number of pages is provided in Manuscript Preparation.
2. The Abstract is limited to 150 words.
3. The Materials and Methods section may be sharply limited, but should be sufficient to allow the evaluation of results and conclusions.
4. Authors may combine the Results and Discussion sections.
PREPARATION OF THE REVISED MANUSCRIPT

Follow The JI Editorial Office instructions contained in the previous decision letter carefully and thoroughly. A revised manuscript not returned within 9 months of the date of the decision letter will be considered a new manuscript and subject to a new, complete review.

Individual manuscript files, files for each figure and table (even if they are unchanged from the previous submission), and a point-by-point reply to all referee comments must be uploaded to the system. The revised manuscript text must be marked to show changes using yellow highlighting (Microsoft Word files preferred). Do not show deletions, because if the manuscript is accepted, this version will be immediately sent for publication. High-resolution figure files must be submitted. Figures must be in **TIFF, EPS, or PDF** format and prepared as described under Figures.

SUBMIT ONLINE

Submit online at ji.msubmit.net.

1. For the initial submission of **Full-Length manuscripts**:
   - Either a PDF of the entire manuscript (text, figures, and tables), or individual manuscript, figure, and table files may be uploaded to the system. If individual files are uploaded, the system then creates a single PDF for review purposes.

2. For **Cutting Edge submissions** and all **revised manuscripts**:
   - Individual manuscript, high resolution figure, and table files must be uploaded to the system. Authors should save copies for themselves of all the files in their original formats.

3. See **Author Instructions** for online submission requirements.

4. See the **Figures** section for help with preparing digital art.

5. The JI’s online submission system requires browsers where cookies and Javascript are enabled.

6. The system will ask submitters to designate the Corresponding Author.

7. Authors will be offered the option to include their ORCID number.

Who Can be a Corresponding Author?: The Corresponding Author must be the person who has the authority to take responsibility for all obligations related to the manuscript and its submission. These responsibilities include but are not limited to:

1. Ensuring the scientific integrity of the submission;
2. Confirming that all authors have read and concur with the submission of the manuscript;
3. Resolving any authorship disputes;
4. Ensuring that all funding sources are listed in a footnote to the title;
5. Making unique materials available to qualified investigators;
6. Complying with requirements to deposit microarray and other similar datasets in public venues;
7. Confirming that any human and/or animal studies have been approved by an appropriate institutional review committee;
8. Ensuring that all conflicts of interest or financial interests are listed;
9. Confirming that the manuscript is original;
10. Confirming that no part of the manuscript has been previously published, submitted elsewhere, or posted on the Internet;
11. Ensuring that the manuscript contains no fabrications, fraud, or plagiarism;
12. Transferring the copyright interest in the manuscript and all Supplemental Materials to AAI;
13. Maintaining/archiving all data related to the manuscript;
14. Signing the Submission form and the Publication Charges forms.

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AAI views this policy as a costly, duplicative effort that diverts federal dollars from biomedical research. For more information about how publishing in *The JI* relates to the policy, please see the NIH Public Access Policy: Frequently Asked Questions (http://publicaccess.nih.gov/FAQ.htm).

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- A, angstrom
- aa, amino acid (only with numbers)
- Ab, antibody
- ABTS, 2,2'‐azinobis(3-ethylbenzthiazoline-6-sulfonic acid)
- ADP, adenosine 5’-diphosphate
- Ag, antigen
- AIDS, acquired immunodeficiency syndrome
- AMP, adenosine 5’-monophosphate
- ANOVA, analysis of variance
- AP-1, activator protein 1
- APC, Ag-presenting cell
- ATP, adenosine triphosphate
- BALB/c, a mouse strain
- BALT, bronchus‐associated lymphoid tissue
- BAPTA-AM, 1,2-bis(2-aminophenoxy)ethane-N,N,N',N'-tetraacetic acid acetoxymethyl ester
- BCR, B cell receptor
- bp, base pair (only with numbers)
- BrdU, 5-bromo-2'-deoxyuridine
- BSA, bovine serum albumin
- C, complement
- C region, constant region of Ig
- cAMP, cyclic AMP
- C terminus, carboxyl terminus
- C-terminal, carboxyl-terminal
- CCL, CC chemokine ligand
- CCR, CC chemokine receptor
tRNA, transfer RNA
TTP, thymidine 5′-triphosphate
TUNEL, Tdt-mediated dUTP nick end labeling
U, unit (only with numbers)
UDP, uridine 5′-diphosphate
UMP, uridine 5′-monophosphate
UTP, uridine 5′-triphosphate
UV, ultraviolet
v/v, volume to volume ratio (%)
v/w, volume to weight ratio (%)

Keywords

Animals
Human
Rodent
Other Animals

Cells
B Cells
Dendritic Cells
Endothelial Cells
Eosinophils
Mast Cells/ basophils
Monocytes/Macrophages
Natural Killer Cells
Neutrophils
Stem Cells
Stromal Cells
T Cells
T Cells, Cytotoxic
Th1/Th2 Cells

Diseases
Autoimmunity
Diabetes
EAE/MS

Molecules
Acute-Phase Reactants
Adhesion Molecules
Antibodies/Antigens/Peptides/Epitopes
Autoantibodies
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Chemokines
Complement
Cytokine Receptors
Cytokines

Processes
Allergy
Antigen Presentation/Processing
Apoptosis
Cell Activation
Cell Differentiation
Cell Proliferation
Cell Trafficking
Chemotaxis
Comparative Immunology/Evolution
Costimulation
Cytotoxicity
Gene Rearrangement
Gene Regulation

Techniques
Gene Therapy
Molecular Biology
Transgenic/Knockout Mice

Tissues
Lung
Mucosa
Skin
Spleen & Lymph Nodes
Thymus

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To provide contemporary investigators and the public a rare view into the lives and times of influential immunologists, AAI arranged for the award-winning Oral Historian Brien Williams, Ph.D., to interview past AAI presidents, beginning in the spring of 2012. Interviewees were asked about their family backgrounds, early interest in science, reasons for studying immunology, career and research highlights, challenges faced, balancing professional and private life, hobbies outside of the laboratory, major changes in immunology over the course of their careers, and the future of immunology and science in the United States. The sessions, typically one and one-half to two hours in length, were professionally recorded and edited in high-definition video.

“Scientific contributions live on as researchers continue to build upon the work of the past, yet present-day investigators often know little about the scientists responsible for them,” said AAI Historian John Emrich, Ph.D., who first conceived of the Oral History Project in 2011. “The ‘Pillars of Immunology’ series in The Journal of Immunology makes the connections between past and present science more explicit than they otherwise would be, but investigators rarely have the opportunity to hear about their predecessors’ motivations, their hardships suffered and overcome, their lives outside of the laboratory, or even their candid thoughts on the state of the field.”

To date, 25 past presidents have been interviewed. Their presidential terms span five decades, from that of Herman Eisen (AAI ’51, president 1968–69, now deceased) to Leslie Berg (AAI ’94, president 2011–12). Included in this group were two past presidents in their 90s, Eisen and David Talmage (AAI ’54, president 1978–79, now deceased); six in their 80s; and four in their 70s.

The memories and reflections contained in these interviews constitute an important facet of the history of immunology that would likely be lost to future generations if not preserved in the AAI Oral History Project. As AAI continues to conduct interviews with additional presidents and other influential immunologists, members and the general public are invited to view the oral histories already recorded. Video clips and the full-length interviews, which have been optimized for playback on TVs, computers, and mobile devices, are available at www.aai.org/ohp.

**Oral History Interviews Currently Available:**

- Herman N. Eisen (1968–69)
- K. Frank Austen (1977–78)
- David W. Talmage (1978–79)
- Jonathan W. Uhr (1983–84)
- William E. Paul (1986–87)
- Max D. Cooper (1988–89)
- Henry Metzger (1991–92)
- Frank W. Fitch (1992–93)
- Ellen S. Vitetta (1993–94)
- Irving L. Weissman (1994–95)
- Katherine L. Knight (1996–97)
- Roger M. Perlmutter (1999–2000)
- Philippa Marrack (2000–01)
- James P. Allison (2001–02)
- Paul W. Kincade (2002–03)
- Laurie H. Glumcher (2003–04)
- Susan L. Swain (2004–05)
- Paul M. Allen (2005–06)
- Lewis L. Lanier (2006–07)
- Olivera J. Finn (2007–08)
- Arthur Weiss (2008–09)
- Betty A. Diamond (2009–10)
- Jeffrey A. Frelinger (2010–11)
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