

Jennifer Barr, PhD

Upcoming changes to the NIH Biosketch

Scientific Editing and Research Communication Core
(SERCC)

September 29, 2025



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Upcoming changes to the NIH Biosketch

NIH's Adoption of Common Forms for Biographical Sketch and Current and Pending (Other) Support by
May 25, 2025

Notice Number:
NOT-OD-24-163

Key Dates

Release Date: July 31, 2024

Related Announcements

- April 4, 2024 - Overview of Grant Application and Review Changes for Due Dates on or after January 25, 2025. See Notice [NOT-OD-24-084](#).

Issued by

NATIONAL INSTITUTES OF HEALTH (NIH)

Purpose

This Guide Notice informs the extramural community of NIH's adoption of Common Forms for Biographical Sketch and Current and Pending (Other) Support to be used with all applications and Research Performance Progress Report(s) (RPPRs) by May 25, 2025.

Background

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-24-163.html>

Delayed but anticipated
starting in November
2025

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NIH Biographical Sketch Supplement

- NIH will collect **Personal Statement, Contributions to Science, and Honors** on a new NIH Biographical Sketch Supplement form.
- NIH will require use of [SciENcv](#) to complete both Common Forms and NIH Biographical Sketch Supplement.
- Will require ORCID ID and this must be linked to your eRA Commons Personal Profile.

<https://grants.nih.gov/grants/guide/notice-files/NOT-OD-24-163.html>

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Preview of the NIH Common Form is available on SciENcv

The screenshot displays the NIH SciENcv interface. The 'My Bibliography' section shows a list of recent activities, including publications and grants. A yellow circle highlights the 'SciENcv' link in the 'Recent Activity' section. A yellow arrow points to the 'SciENcv' link in the 'My Bibliography' section.

Time	Database	Type	Term
06-Sep-2025	Books	record	Research Fundings for Biomedical Sci...
06-Sep-2025	Books	record	Extracranial Fundings of Neurological Sci...
29-Jul-2025	Books	record	Anatomy Head and Neck Neuroanatomy...
08-Jul-2025	Books	record	SciENcv - My NCBI Page
19-May-2025	PMAC	search	PMAC... 20250213
09-Apr-2025	Books	record	My Bibliography - My NCBI Page

IOWA

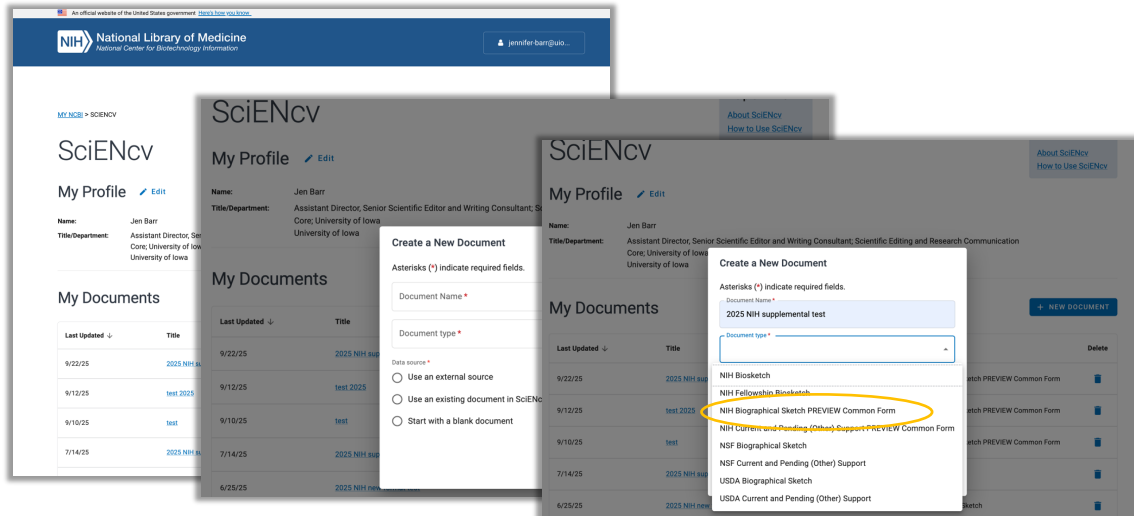
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Scientific Editing and Research Communication Core

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Preview of the NIH Common Form is available on SciENcv



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Scientific Editing and Research Communication Core

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Preview of the NIH Common Form

- May not use Common Form for submissions to NIH at this time (09/29/25).
- Data entered into preview documents will not be saved once official Common Forms are available.

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Scientific Editing and Research Communication Core

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Preview of the NIH Biographical Sketch Supplement

- May not use Common Form for submissions to NIH at this time (09/29/25).
- Data entered into preview documents will not be saved once official Common Forms are available.

Content in the NIH Common Form

Content in the NIH Common Form

- **Identifying information**
- **Organization and location**
- **Professional preparation**
 - Listed in [reverse](#) chronological order by start date
 - Include:
 - name of organization, location
 - degree received
 - start date of program
 - month and year degree received
 - field of study

Identifying Information, Organization and Location * [EDIT](#)

In this section, disclose the information requested regarding the individual and their associated organization and location. All fields are required unless otherwise noted.

Document Name: 2025 NIH supplemental test1 Last updated: September 22, 2025

Name: Jennifer Barr

Position Title: Assistant Director, Grant Writer
University of Iowa
Iowa City, Iowa, United States

A. Professional Preparation *

A list of the senior/key person's professional preparation (e.g., education and training), listed in reverse chronological order by start date. Include all postdoctoral and fellowship training, as applicable, listing each separately. Also include the baccalaureate degree or other initial professional education.

[+ ADD PROFESSIONAL PREPARATION](#)

Organization	Location	Degree (if applicable)	Receipt Date	Field of Study	Edit	Delete
University of Iowa	Iowa City, Iowa	Postdoctoral Fellow	Nov 2017	Autoimmunity	EDIT	DELETE
University of Iowa	Iowa City, Iowa	Doctor of Philosophy	May 2015	Anatomy and Cell Biology	EDIT	DELETE
Hope College	Holland, MI	Bachelor of Science	May 2005	Biology and Biochemistry	EDIT	DELETE

Content in the NIH Common Form

- **Identifying information**
- **Organization and location**
- **Professional preparation**
 - Listed in [reverse](#) chronological order by start date
 - Include:
 - name of organization, location
 - degree received
 - start date of program
 - month and year degree received
 - field of study

Same information that can be found in the Applicant Information and Education/Training section of current biosketch

OMB No. 0925-0001 and 0925-0002 (Rev. 10/2021 Approved Through 01/31/2026)

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/Key personnel and other significant contributors. Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Barr, Jennifer Yamaoka

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Assistant Director, Senior Scientific Editor and Writing Consultant

EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing. Include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE (MM/YYYY)	FIELD OF STUDY
Hope College, Holland, MI	BS	05/2005	Biology and Biochemistry
University of Iowa, Iowa City, IA	PhD	05/2015	Anatomy and Cell Biology
University of Iowa, Iowa City, IA	Postdoctoral	11/2017	Autoimmunity

Content in the NIH Common Form

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
 - Reverse chronological order by start date
 - Include any titled academic, professional, or institutional position (regardless of remuneration or status, e.g., part-time, voluntary).
 - Only include domestic and foreign appointments outside of primary organization that are within three years from date the proposal is submitted.

B. Appointments and Positions *

A list, in reverse chronological order by start date, of all the senior/key person's academic, professional, or institutional appointments and positions, beginning with the current appointment (including the associated organization and location). Appointments and positions include any titled academic, professional, or institutional position whether or not remuneration is received, and whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).

Senior/key personnel must only identify all domestic and foreign professional appointments and positions outside of the primary organization for a period up to three years from the date the applicant submits the proposal to the agency for funding consideration.

[+ ADD APPOINTMENT/POSITION](#)

Date	Current	Title	Organization/Department	Location	Edit	Delete
2025 - Present	Yes	Assistant Director, Grant Writer	University of Iowa	Iowa City, Iowa		
2024 - Present	No	Vice-chair	Scientist Editors Network (ScEN) Conference Call Committee	Iowa City, Iowa		
2023 - Present	No	Member	ScEN Manuscript Committee	Iowa City, Iowa		
2023 - Present	No	Member	Council of Science Editors	Iowa City, Iowa		
2022 - Present	No	Member, Flow Cytometry Advisory Committee	University of Iowa	Iowa City, Iowa		
2018 - Present	No	Member	National Organization of Research Development Professionals	Iowa City, Iowa		
2018 - Present	No	Member	Scientist Editors Network	Iowa City, Iowa		
2024 - 2025	No	Assistant Director, Senior Scientific Editor and Writing Consultant	University of Iowa	Iowa City, Iowa		
2022 - 2024	No	Senior Scientific Editor and Writing Consultant	University of Iowa	Iowa City, Iowa		

Content in the NIH Common Form

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
 - Reverse chronological order by start date
 - Include any titled academic, professional, or institutional position (regardless of remuneration or status, e.g., part-time, voluntary).
 - Only include domestic and foreign appointments outside of primary organization that are within three years from date the proposal is submitted.

From current biosketch: same information listed in *Positions and Scientific Appointments and Other Experience and Professional Memberships*

B. Positions, Scientific Appointments, and Honors

Positions and Scientific Appointments

2010-present Co-Director, Medical Scientist Training Program, University of Iowa
 2010-present Adjunct Professor of Obstetrics and Gynecology, University of Iowa
 2000-present Professor of Biochemistry, University of Iowa
 1999-2006 Director of Medical Scientist Training Program, University of Iowa
 1997-1999 Associate Director, Medical Scientist Training Program, University of Iowa
 1995-2000 Associate Professor of Biochemistry, University of Iowa
 1989-1995 Assistant Professor of Biochemistry, University of Iowa
 1988-1989 Visiting Assistant Professor of Biological Chemistry, University of Maryland, Baltimore County, Catonsville, MD

Other experience and Professional Memberships

2019-present Member, NIH TWD-A review panel
 2019 Elected member, Electorate Nominating Committee, AAAS
 2018 Elected member, Board of Directors, Genetics Society of America
 2017 Co-Chair, 59th Annual Drosophila Research Conference
 2016 Co-Chair, Epigenetics Gordon Research Conference
 2016 Member, NIH intramural review in NICHD
 2016-2017 Chair, NIH MGB R01 review panel
 2016 Invited editor, Genome Architecture and Expression, *Curr. Opin. Genetics Dev.*
 2015 Vice-Chair, Epigenetics Gordon Research Conference
 2012 Member, NIH intramural review of the Center for Chromosomal Biology
 2012-2016 Member, NIH MGB R01 review panel
 2011-present Associate Editor, *Genetics*, Genetics Society of America
 2009-present Editorial Board member, *Nucleus*, Landes Bioscience
 2008-2012 Treasurer, Drosophila research community, elected position
 2007 Co-Chair, Mini-symposium at American Society for Cell Biology conference
 2006-2008 Midwest Representative Drosophila Advisory Board, elected position
 2005-2007 Member, HHMI Research Training Fellowship Review Panel
 2001 Organizer, Mini-symposium at the 17th European Drosophila Research Conference
 2000 Co-Chair, 41st Annual Drosophila Research Conference
 1999 Co-Chair, FASEB Chromatin and Transcription Meeting
 1997-2001 Member, NIH Biomedical Research and Research Training Review Subcommittee C

Content in the NIH Common Form

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
- Products
 - Five products most closely related to the proposed project
 - Up to five other significant products, whether or not related to the proposed project

C. Products

Provide a list of: (i) up to five products closely related to the proposed project, and (ii) up to five other significant products that highlight the senior/key person's Contributions to Science. The NIH Biographical Sketch Supplement will provide the opportunity to describe these contributions in more depth while referencing the other significant products cited in this section.

It is up to the individual to determine how to best organize this listing to demonstrate their ability to carry out the project. Acceptable products must be citable and accessible including but not limited to:

What are acceptable products?

Each product must follow the NIH Policy on Use of Hypertext in NIH Grant Applications and include full citation information:

What is included in a full product citation?

Senior/key persons who wish to include publications in the products section of the biographical sketch that include multiple authors may, at their discretion, choose to list one or more of the authors and then "et al" in lieu of including the complete listing of authors' names.

Products Closely Related to the Proposed Project *

Select up to 5 products

EDIT PRODUCTS

1. Geyer PK, Hoffmann DS, Barr JY, Widmayer HA, Blaumueller CM. [Granting access: Development of a formal course to demystify and promote predoctoral fellowship applications for graduate students](#). PLoS One. 2024; 19(4):e0301480. doi: 10.1371/journal.pone.0301480. eCollection 2024. PubMed PMID: 38669240; PubMed Central PMCID: PMC11051599.
2. Gurusoglu SB, Noterman Soulinthavong M, Barr JY. A Winning Approach: Teaching Science Communication Skills Through Small Group Workshops. Higher Learning Research Communications. 2022; 12(2):23. doi:10.18870/hlrc.v12i2.1342.
3. Debrecent IL, Barr JY, Upton EM, Chen YG, Lieberman SM. IL-27 promotes pathogenic T cells in a mouse model of Sjögren's disease. Clin Immunol. 2024 Jul; 264:110260. doi: 10.1016/j.clim.2024.110260. Epub 2024 May 22. PubMed PMID: 38788885; PubMed Central PMCID: PMC11203157; manuscript id: NIHMS1997414; NIHMSID: NIHMS1997414.
4. Chen JL, Barr JY, Zuk JJ, Gorman JV, Colgan JD. Reciprocal SH2-SH3 Domain Contacts between ITK Molecules Limit T Cell Receptor Signaling in Th2-type CD4(+) T Cells. Immunol Invest. 2022 Aug; 51(6):1612-1629. doi: 10.1080/08820139.2021.2007262. Epub 2021 Nov 29. PubMed PMID: 34844506.

Content in the NIH Common Form

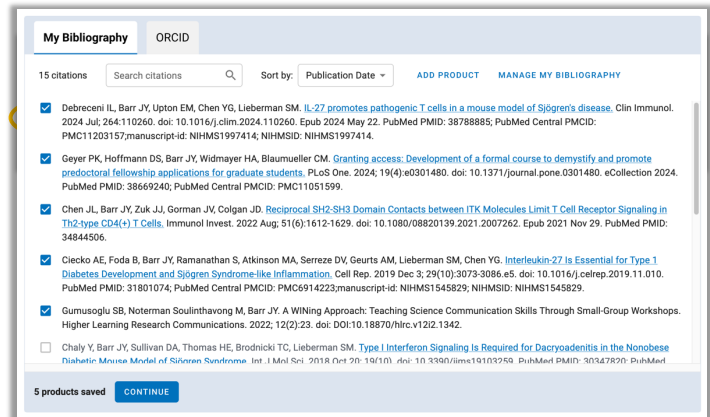
Acceptable products

- Publications, conference papers, and presentations
- Website(s) or other Internet site(s)
- Technologies or techniques
- Inventions, patents, patent applications, and/or licenses
- Other products (data, databases, physical collections, audio/video products, software, models, educational aids or curricula, instruments or equipment, research material, interventions (e.g., clinical or educational), or new business creation)

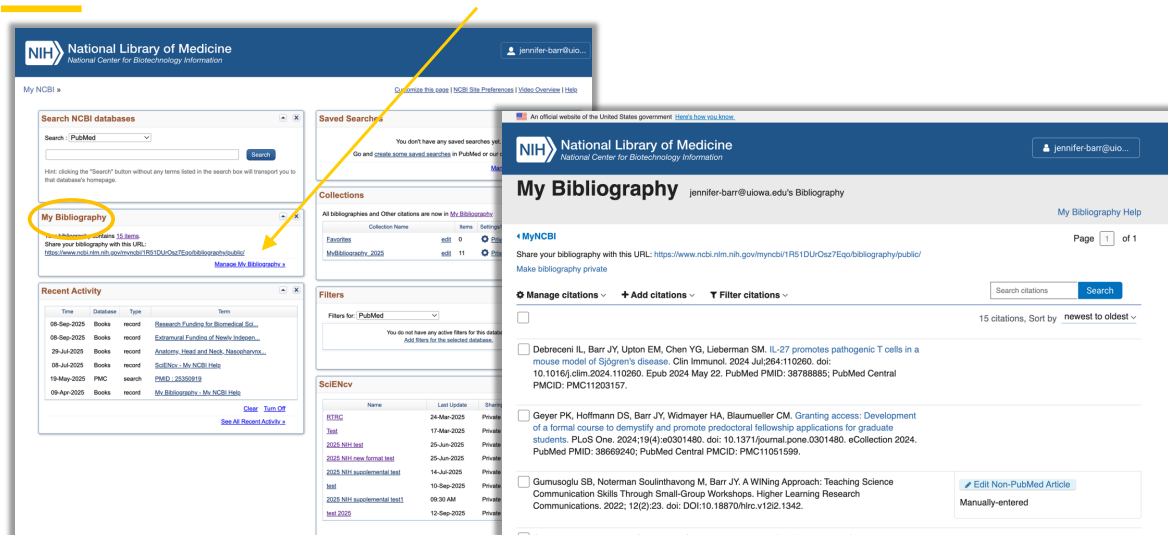
Content in the NIH Common Form

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
- Products
 - Five products most closely related to the proposed project
 - Up to five other significant products, whether or not related to the proposed project

Can easily select products if you have a My Bibliography set up in My NCBI.



My Bibliography



Content in the NIH Common Form

Products citation

- Must follow NIH policy ([NOT-OD-20-174](#)) on use of hyperlinks (PMICIDs are added)
- Include:
 - Names of authors
 - Product title
 - Date of publication or release
 - Website URL
 - Other persistent identifier (if available)
 - Other relevant citation information (e.g., in the case of publications, title of enclosing work such as journal or book, volume, issue, pages)
 - If any items above not applicable, enter "N/A"
- Senior/key persons may choose to list one or more authors and then "et al" in lieu of including complete list of authors names

Products

Products Closely Related to the Proposed Project

- Geyer PK, Hoffmann DS, Barr JY, Wilmeyer HA, Blaumueller CM. Granting access: Development of a formal course to identify and promote predoctoral fellowship applications for graduate students. *PLoS One*. 2024;19(4):e0301480. PubMed Central PMCID: [PMC11051599](#).
- Gumusoglu SB, Noterman Soulinthavong M, Barr JY. A WINning Approach: Teaching Science Communication Skills Through Small-Group Workshops. *Higher Learning Research Communications*. 2022; 12(2):23. Available from: <https://scholarworks.walden.edu/hlrc/vol12/iss2/23/>. DOI:10.18780/hlrc.v12i2.1342
- Debrecent IL, Barr JY, Upton EM, Chen YG, Lieberman SM. IL-27 promotes pathogenic T cells in a mouse model of Sjögren's disease. *Clin Immunol*. 2024 Jul;264:110260. PubMed Central PMCID: [PMC11201157](#).
- Chen JL, Barr JY, Zuk JJ, Gorman JV, Colgan JD. Reciprocal SH2-SH3 Domain Contacts between ITK Molecules Limit T Cell Receptor Signaling in Th2-type CD4⁺ T Cells. *Immunity*. 2022 Aug;51(6):1612-1629. PubMed PMID: [34844506](#).
- Ciecko AE, Foda B, Barr JY, Ramanathan S, Atkinson MA, Serreze DV, Geurts AM, Lieberman SM, Chen YG. Interleukin-27 Is Essential for Type 1 Diabetes Development and Sjögren Syndrome-like Inflammation. *Cell Rep*. 2019 Dec 3;29(10):3073-3086.e5. PubMed Central PMCID: [PMC6914251](#).

Other Significant Products, Whether or Not Related to the Proposed Project

- Chaly Y, Barr JY, Sullivan DA, Thomas HE, Brodnicki TC, Lieberman SM. Type 1 Interferon Signaling Is Required for NIH Biographical Sketch v.2025-1

- Dacryodentitis in the Nonobese Diabetic Mouse Model of Sjögren Syndrome. *Int J Mol Sci*. 2018 Oct 20;19(10) PubMed Central PMCID: [PMC6214106](#).
- Barr JY, Wang X, Kreiger PA, Lieberman SM. Salivary-gland-protective regulatory T-cell dysfunction underlies female-specific dacryodentitis in the non-obese diabetic mouse model of Sjögren syndrome. *Immunology*. 2018 Oct;155(2):223-237. PubMed Central PMCID: [PMC6142263](#).
 - Barr JY, Wang X, Meyerholz DK, Lieberman SM. CD8 T cells contribute to lacrimal gland pathology in the nonobese diabetic mouse model of Sjögren syndrome. *Immunol Cell Biol*. 2017 Sep;95(8):684-694. PubMed Central PMCID: [PMC5293614](#).
 - Duong KL, Das S, Yu S, Barr JY, Jena S, Kim E, Zavarova N, Colgan JD, Xue HH, Levasseur DN. Identification of hematopoietic-specific regulatory elements from the CD48 gene and use for lentiviral tracking of transplanted cells. *Exp Hematol*. 2014 Sep;42(9):761-72.e1-10. PubMed Central PMCID: [PMC4167479](#).
 - Barr JY, Goodfellow RX, Colgan DF, Colgan JD. Early B Cell Progenitors Deficient for GONAL Fail To Differentiate Due to a Block in Mitotic Cell Division. *J Immunol*. 2017 May 15;198(10):3978-3988. PubMed Central PMCID: [PMC5444536](#).

Common form: content

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
- Products

Example

NIH Biographical Sketch PREVIEW Common Form

Name: Barr, Jennifer

Position Title: Assistant Director, Grant Writer

Organization and Location: University of Iowa, Iowa City, Iowa, United States

INSTITUTION AND LOCATION	DEGREE	Start Date	Completion Date	FIELD OF STUDY
University of Iowa, IOWA CITY, IOWA, United States	Ph.D.	03/2001	11/2007	Anatomy
University of Iowa, IOWA CITY, IOWA, United States	DOCTOR OF PHILOSOPHY	03/2001	03/2003	Anatomy and Cell Biology
Hopkins College, HOLLAND, MI, United States	BACHELOR OF SCIENCE	09/2000	03/2000	Biology and Biochemistry

Appointments and Positions

Year	Position	Organization
2023 - present	Assistant Director, Grant Writer	University of Iowa, Iowa City, Iowa, United States
2024 - present	Vice-chair, Scientist Editors Network (SEN) Conference Call Committee	Iowa City, Iowa, United States
2022 - present	Member, Scientific Editors Network	Iowa City, Iowa, United States
2021 - present	Member, Council of Science Editors	Iowa City, Iowa, United States
2022 - present	Member, Peer Capacity Advisory Committee, University of Iowa	Iowa City, Iowa, United States
2019 - present	Member, National Organization of Research Development Professionals	Iowa City, Iowa, United States
2019 - present	Member, Scientific Editors Network	Iowa City, Iowa, United States
2024 - 2025	Assistant Director, Senior Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2022 - 2024	Senior Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2021 - 2022	Advisory Committee, University of Iowa	Iowa City, Iowa, United States
2019 - 2021	Member, American Medical Writers Association	Iowa City, Iowa, United States
2017 - 2022	Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2015 - 2017	Member, American Association of Neuroanatomists	Iowa City, Iowa, United States

Products

Products Closely Related to the Proposed Project

- Geyer PK, Hoffmann DS, Barr JY, Wilmeyer HA, Blaumueller CM. Granting access: Development of a formal course to identify and promote predoctoral fellowship applications for graduate students. *PLoS One*. 2024;19(4):e0301480. PubMed Central PMCID: [PMC11051599](#).
- Gumusoglu SB, Noterman Soulinthavong M, Barr JY. A WINning Approach: Teaching Science Communication Skills Through Small-Group Workshops. *Higher Learning Research Communications*. 2022; 12(2):23. Available from: <https://scholarworks.walden.edu/hlrc/vol12/iss2/23/>. DOI:10.18780/hlrc.v12i2.1342
- Debrecent IL, Barr JY, Upton EM, Chen YG, Lieberman SM. IL-27 promotes pathogenic T cells in a mouse model of Sjögren's disease. *Clin Immunol*. 2024 Jul;264:110260. PubMed Central PMCID: [PMC11201157](#).
- Chen JL, Barr JY, Zuk JJ, Gorman JV, Colgan JD. Reciprocal SH2-SH3 Domain Contacts between ITK Molecules Limit T Cell Receptor Signaling in Th2-type CD4⁺ T Cells. *Immunity*. 2022 Aug;51(6):1612-1629. PubMed PMID: [34844506](#).
- Ciecko AE, Foda B, Barr JY, Ramanathan S, Atkinson MA, Serreze DV, Geurts AM, Lieberman SM, Chen YG. Interleukin-27 Is Essential for Type 1 Diabetes Development and Sjögren Syndrome-like Inflammation. *Cell Rep*. 2019 Dec 3;29(10):3073-3086.e5. PubMed Central PMCID: [PMC6914251](#).

Other Significant Products, Whether or Not Related to the Proposed Project

- Chaly Y, Barr JY, Sullivan DA, Thomas HE, Brodnicki TC, Lieberman SM. Type 1 Interferon Signaling Is Required for NIH Biographical Sketch v.2025-1

No page or character limit!

Content in the NIH Common Form

- Identifying information
- Organization and location
- Professional preparation
- Appointments and Positions
- Products

Example

NIH Biographical Sketch PREVIEW Common Form

Name: Jane Doe
Position Title: Assistant Director, Grant Writer
Organization and Location: University of Iowa, Iowa City, Iowa, United States

INSTITUTION AND LOCATION	DEGREE	Year Started	Completion Date	FIELD OF STUDY
University of Iowa, IOWA CITY, IOWA, United States	Doctorate of Philosophy	07/2013	11/2017	Anatomy
University of Iowa, IOWA CITY, IOWA, United States	DOCTOR OF PHILOSOPHY	08/2017	05/2015	Anatomy and Cell Biology
Hope College, Holland, MI, United States	BACHELOR OF SCIENCE	08/2009	05/2008	Biology and Biochemistry

Appointments and Positions

Year	Position	Organization
2025 - present	Assistant Director, Grant Writer	University of Iowa, Iowa City, Iowa, United States
2024 - present	Vice-chair, Scientific Editors Network (SIN) Conference Call Committee	University of Iowa, Iowa City, Iowa, United States
2023 - present	Member, Scientific Editors Network (SIN) Conference Call Committee	University of Iowa, Iowa City, Iowa, United States
2022 - present	Member, Council of Scientific Editors, Iowa City, Iowa, United States	University of Iowa, Iowa City, Iowa, United States
2021 - present	Member, Peer Community Address Committee	University of Iowa, Iowa City, Iowa, United States
2018 - present	Member, National Organization of Research Development Professionals	University of Iowa, Iowa City, Iowa, United States
2014 - present	Member, Scientific Editors Network	Iowa City, Iowa, United States
2014 - 2015	Assistant Director, Senior Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2017 - 2018	Senior Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2021 - 2021	Adjunct Instructor	University of Iowa, Iowa City, Iowa, United States
2019 - 2021	Member, American Medical Writers Association	Iowa City, Iowa, United States
2017 - 2022	Scientific Editor and Writing Consultant	University of Iowa, Iowa City, Iowa, United States
2017 - 2017	Member, American Association of Biomedical Editors	Iowa City, Iowa, United States

Products

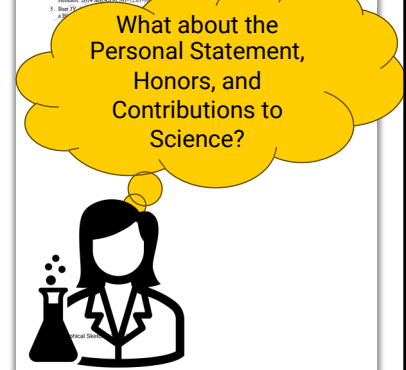
Products Closely Related to the Present Project

1. Green PC, Hoffmann CS, Barr JY, Walencewicz HA, Blumenthal CM. Granting access: Development of a formal course to develop and promote postdoctoral fellowship applications for graduate students. *PLoS One*. 2024;19(4):e0301480. PubMed Central PMCID: PMC1101105.
2. Cummings JB, Nagamatsu S, Barr JY. A Writing Approach: Teaching Science Communication Skills Through Small-Group Workshops. *Human Learning Research Communications*. 2022; 13(2):13. Available from: <https://www.humanlearning.com/articles/13/2/13>. PubMed Central PMCID: PMC1000000.
3. Delmonico E, Barr JY, Limon DM, Chen YL, Lieberman SM. B27 pancreatic islets: T cells in a mouse model of Sjögren's disease. *The Immunity*. 2014;29(4):1000. PubMed Central PMCID: PMC1240000.
4. Chen H, Barr JY, Jia H, Gerson PC, Colgan JD, Brodsky DR. BDNF-Derived Protein Complexes (BPCs) Mediate Link T Cell-Signaling Signaling in the Tumor Microenvironment. *2023 Aug 16;medRxiv preprint doi: <https://doi.org/10.1101/2023.08.16.23280000>*.
5. Uchida AM, Pado S, Barr JY, Rasmussen S, Ashworth MA, Simon PV, Gerson AM, Lieberman SM, Chen YL. Interleukin-17 is essential for Type 1 Interferon Development and Sjögren's Disease. *Immunity*. 2017;46(5):888-895. PubMed Central PMCID: PMC5400000.

Other Significant Products Highlighting Contributions to Science

1. Chaly Y, Barr JY, Sullivan DA, Thomas HE, Brodsky TC, Lieberman SM. Type 1 Interferon Signaling is Required for Dendrocyte in the Nonobese Diabetic Mouse Model of Sjögren's Syndrome. *Int J Mol Sci*. 2018 Oct 20;19(10). doi: 10.3390/ijms19102529. PubMed PMID: 30247620; PubMed Central PMCID: PMC6214706.
2. Barr JY, Wang X, Krieger PA, Lieberman SM. Salivary gland-specific regulatory T cell dysfunction underlies broadly specific autoimmunity in the non-obese diabetic mouse model of Sjögren's syndrome. *Immunology*. 2018 Oct;153(2):225-237. PubMed PMID: 29750331; PubMed Central PMCID: PMC6142283.
3. Barr JY, Wang X, Meyerholz DK, Lieberman SM. CD8 T cells contribute to lacrimal gland pathology in the nonobese diabetic mouse model of Sjögren's syndrome. *Immunol Cell Biol*. 2017 Sep; 95(8):684-694. doi: 10.1038/nri.2017.38. PubMed PMID: 28455508; PubMed Central PMCID: PMC5555634; manuscript id: NIHMS872191; NIHMSID: NIHMS872191.
4. Duong KL, Dai S, Yu S, Barr JY, Jena S, Kim E, Zawadzka N, Colgan JD, Rue HR, Levesque DM. Identification of hematopoietic-specific regulatory elements from the CD81 gene and use for lentiviral tracking of transplanted cells. *Exp Hematol*. 2014 Sep; 42(9):761-772.e1-10. doi: 10.1016/j.exphem.2014.05.005. Epub 2014 May 20. PubMed PMID: 24852660; PubMed Central PMCID: PMC4167479; manuscript id: NIHMS611093; NIHMSID: NIHMS611093.
5. Barr JY, Goodfellow RK, Colgan DF, Colgan JD. Early B Cell Progenitors Deficient for GDNF Fail To Differentiate Due to a Block in Mitotic Cell Division. *J Immunol*. 2017 May 15; 198(10):3978-3988. doi: 10.4049/jimmunol.1602054. Epub 2017 Apr 5. PubMed PMID: 28381460; PubMed Central PMCID: PMC5445224; manuscript id: NIHMS861389; NIHMSID: NIHMS861389.

NIH Biographical Sketch v.2025-1



NIH Biographical Sketch Supplement

SciENcv

My Profile [Edit](#)

Name: Jan Barr
Title/Department: Assistant Director, Senior Scientific Editor and Writing Consultant, Scientific Editing and Research Communication Core, University of Iowa

Create a New Document

Asterisks (*) indicate required fields.

Document Name: 2025 NIH supplemental test

Document Type: *

My Documents

Last Updated	Title	Document Type
9/22/25	2025 NIH supplemental test	NIH Biographical Sketch
9/12/25	test 2025	NIH Biographical Sketch
9/10/25	test	NIH Biographical Sketch
7/14/25	2025 NIH supplemental test	NIH Biographical Sketch
6/10/25	2025 NIH supplemental test	NIH Biographical Sketch

NIH Biographical Sketch Supplement

This NIH Biographical Sketch Supplement provides instructions for submission by each individual identified as a *senior/key person* on a currently funded research project submitting a Biographical Sketch Common Form. For NIH, these instructions also apply to all other individuals required to submit a Biographical Sketch.

Asterisks (*) indicate required sections or fields.

Shows up automatically below Common Form

NIH Biographical Sketch Supplement

- Personal Statement
- Honors
- Contributions to Science

NIH Biographical Sketch Supplement: Personal Statement

- Personal Statement
- Honors
- Contributions to Science

Current biosketch

NIH Form 1005-101 and 1005-102 (Rev. 10/2017) Approved Through 10/1/2020

BIOGRAPHICAL SKETCH
Provide the following information for the biographical sketch and other significant contributions.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Bart, Jennifer Yarns

ORCID iD: [blank]

POSITION TITLE: Assistant Director, Senior Scientific Editor and Writing Consultant

EDUCATION/TRAINING: (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Address one at a time.)

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE (MM/YYYY)	FIELD OF STUDY
Hope College, Holland, MI	BS	05/2006	Biology and Biochemistry
University of Iowa, Iowa City, IA	PhD	05/2015	Anatomy and Cell Biology
University of Iowa, Iowa City, IA	Postdoctoral	11/2017	Autism

A. Personal Statement
I am a scientific editor and research development professional with a passion for promoting science communication in a manner that is clear and logical. As Assistant Director, Senior Scientific Editor and Writing Consultant in the Scientific Editing and Research Communication Core (SERCC) at the University of Iowa, I assist investigators across career stages to refine grant proposals and research manuscripts, ensuring clarity, coherence, and alignment with funding agency expectations. I provide in-depth editing and strategic guidance on applications to the NIH, NSF, DoD, and private foundations, and have experience working on large-scale, multi-component grants (e.g., P-series, U-series, S10, T32). I have also developed proposal planning frameworks, submission tracking tools, and NIH grant section templates to enhance efficiency and consistency. In addition to grant support, I edit manuscripts for high-impact journals, mentor interns, and contribute to research development through professional organizations. My experience conducting laboratory research has equipped me with the ability to critically analyze scientific findings across a variety of disciplines from the perspective of a non-specialist, allowing me to interpret and contextualize complex research with a unique and insightful approach. Collectively, my experience in laboratory research and scientific editing, combined with my commitment to clear and effective research communication, allows me to help investigators articulate their ideas with precision and impact, ultimately strengthening their funding success and advancing scientific discovery.

A. Personal Statement ★ [EDIT](#)

Briefly describe why you are well-suited for your role(s) in this project. Relevant factors may include: aspects of your training; your previous experimental work on this specific topic or related topics; your technical expertise; your collaborators or scientific environment; and/or your past performance in this or related fields, including ongoing and completed research projects from the past three years that you want to highlight.

[Note the following additional instructions for ALL applicants/candidates:](#)

[Note the following instructions for specific subsets of applicants/candidates:](#)

The Personal Statement is limited to 3,500 characters.

I am a grant writer and research development professional with a passion for promoting science communication in a manner that is clear and logical. In my role as Assistant Director and Grant Writer in the Scientific Editing and Research Communication Core (SERCC) at the University of Iowa, I assist investigators across career stages to refine grant proposals and research manuscripts, ensuring clarity, coherence, and alignment with funding agency expectations. I provide in-depth editing and strategic guidance on applications to the NIH, NSF, DoD, and private foundations, and have experience working on large-scale, multi-component grants (e.g., P-series, U-series, S10, T32). I have also developed proposal planning frameworks, submission tracking tools, and NIH grant section templates to enhance efficiency and consistency. In addition to grant support, I edit manuscripts for high-impact journals, mentor interns, and contribute to research development through professional organizations. My experience conducting laboratory research has equipped me with the ability to critically analyze scientific findings across a variety of disciplines from the perspective of a non-specialist, allowing me to interpret and contextualize complex research with a unique and insightful approach. Collectively, my experience in laboratory research and scientific editing, combined with my commitment to clear and effective research communication, allows me to help investigators articulate their ideas with precision and impact, ultimately strengthening their funding success and advancing scientific discovery.

NIH Biographical Sketch Supplement: Personal Statement

1. Limited to 3,500 characters with spaces

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2. Briefly describe why you are well-suited for your role(s) in this project. Relevant factors may include:

- aspects of your training
- your previous experimental work on this specific topic or related topics
- your technical expertise
- your collaborators or scientific environment
- and/or your past performance in this or related fields, **including ongoing and completed research projects from the past three years that you want to highlight.**

3. If you wish to explain factors that affected your past productivity, such as family care responsibilities, illness, disability, or military service, you may address them in this section.

4. Indicate whether you have published or created research products under another name.

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4. For institutional research training, institutional career development, or research education grant applications, faculty who are not senior/key persons are encouraged, but not required, to complete the Personal Statement section of the NIH Biographical Sketch Supplement. Please enter N/A in the text field if no Personal Statement will be provided.

5. Applicants for dissertation research awards (e.g., R36) should, in addition to addressing the points noted above, also include a description of their career goals, their intended career trajectory, and their interest in the specific areas of research designated in the NOFO.

6. No place to list relevant citations or research products (as in the past) – these get incorporated into the text of the paragraph.

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NIH Biographical Sketch Supplement: Honors

- Personal Statement
- Honors
- Contributions to Science

Current biosketch

B. Positions, Scientific Appointments and Honors	
Positions and Scientific Appointments	
2024 -	Assistant Director, Senior Scientific Editor and Writing Consultant, University of Iowa
2022 - 2024	Senior Scientific Editor and Writing Consultant, University of Iowa
2021	Adjunct Instructor, University of Iowa
2017 - 2022	Scientific Editor and Writing Consultant, University of Iowa
Honors	
2023	Exceptional Performance Award, Carver College of Medicine, University of Iowa
2016	Postdoctoral Association Travel Award, University of Iowa
2013	Outstanding Teaching Assistant Award, University of Iowa
2013	Superior Achievement in Student Teaching, Department of Anatomy and Cell Biology, University of Iowa
2011	Mary J.C. Hendrix Graduate Leadership Award, Department of Anatomy and Cell Biology, University of Iowa
2011	Health Sciences Research Week Poster Award, University of Iowa
2005	Sigma Xi Senior Research Award, Hope College
2005	Biology Service Award, Hope College
2005	Travel Award, American Society of Biochemistry and Molecular Biology
2003	Merck Scholar Research Award, Hope College

B. Honors *				
List any relevant academic and professional achievements and honors. In particular:				
• Students, postdoctorates, and junior faculty should include scholarships, traineeships, fellowships, and development awards, as applicable.				
• Clinicians should include information on any clinical licensures and specialty board certifications that they have achieved.				
The Honors Section is limited to no more than 15 entries.				
+ ADD HONOR				
Date	Honor	Organization	Edit	Delete
2023	Exceptional Performance Award	Carver College of Medicine, University of Iowa	✎	✖
2016	Postdoctoral Association Travel Award	University of Iowa	✎	✖
2013	Outstanding Teaching Assistant Award	University of Iowa	✎	✖
2013	Superior Achievement in Student Teaching	Department of Anatomy and Cell Biology, University of Iowa	✎	✖
2011	Mary J.C. Hendrix Graduate Leadership Award	Department of Anatomy and Cell Biology, University of Iowa	✎	✖
2011	Health Sciences Research Week Poster Award	University of Iowa	✎	✖
2005	Sigma Xi Senior Research Award	Hope College	✎	✖
2005	Biology Service Award	Hope College	✎	✖
2005	Travel Award	American Society of Biochemistry and Molecular Biology	✎	✖
2003	Merck Scholar Research Award	Hope College	✎	✖

NIH Biographical Sketch Supplement: Honors

- List academic and professional achievements and honors
 - Include scholarships, traineeships, fellowships, and development awards, as applicable
 - Clinicians should include information on any clinical licensures and specialty board certifications

New!

- Limited to no more than 15 entries.

NIH Biographical Sketch Supplement: Contributions to Science

- Personal Statement
- Honors
- Contributions to Science

Current biosketch

C. Contribution to Science

1. **Enhancing Scientific Communications and Grant Success through Editorial Expertise.** Often, scientists struggle to clearly describe their research findings and goals, which can hinder their ability to publish manuscripts and obtain funding, ultimately slowing scientific progress. As a scientific editor, I have played a critical role in enhancing the clarity, coherence, and competitiveness of biomedical research grant proposals and manuscripts. My expertise in research communication has directly contributed to securing extramural funding and disseminating scientific findings in high-impact journals. Over the past seven years, I have collaborated with investigators across disciplines to refine their grant narratives, ensuring that the significance, innovation, and feasibility of the proposed work are effectively conveyed to reviewers and the scientific community. I have also assisted with large-scale (e.g., center grant) and instrumentation proposals by helping faculty navigate sponsor requirements and align their proposals with funding agency priorities. Additionally, I have developed structured writing resources, including grant templates and boilerplate text, to streamline the application process and improve proposal consistency. My commitment to improving the clarity of scientific communications also involves mentoring early-stage researchers and other who aspire to become scientific editors through a formal internship program. Collectively, my efforts to improve the clarity of grant proposals and manuscripts increases their chances of success and understanding by a broad readership, and ultimately supports the advancement of scientific research.
 - a. Geyer PK, Hoffmann DS, Barr JY, Widmayer HA, Blazumeller CM. Granting access: Development of a formal course to demystify and promote predoctoral fellowship applications for graduate students. *PLoS One*. 2024;19(4):e0301480. PubMed Central PMCID: PMC11051599.
 - b. Gumusoglu SB, Noterman Soulinthavong M, Barr JY. A Writing Approach: Teaching Science Communication Skills Through Small-Group Workshops. *Higher Learning Research Communications*. 2022; 12(2):23. Available from: <https://scholarworks.waldenu.edu/hlrc/vol12/iss2/2/> DOI: 10.18870/hlrc.v12i2.1342

C. Contributions to Science *

All senior/key persons should complete the "Contributions to Science" section. Please enter N/A in the text field if no Contributions to Science will be provided.

Briefly describe up to five of your most significant contributions to science. While all applicants may describe up to five contributions, graduate students and postdoctorates may wish to consider highlighting two or three they consider most significant.

For each contribution, indicate the following: ▾

You may reference up to five products listed in the Other Significant Products section of your Biographical Sketch Common Form that are relevant to the contributions described in this section. There is no specific format for referencing the products in this section, however, it is recommended to refer to the title, use the author's last name, publication, and/or year of publication for ease of reference. Do not provide citations on the NIH Biographical Sketch Supplement.

Descriptions of contributions may include a mention of research products under development, such as manuscripts that have not yet been accepted for publication. These contributions do not have to be related to the project proposed in this application.

Each Contribution to Science is limited to 2,000 characters.

+ ADD ANOTHER CONTRIBUTION TO SCIENCE

Contribution to Science 1

Enhancing Scientific Communications and Grant Success through Editorial Expertise

Often, scientists struggle to clearly describe their research findings and goals, which can hinder their ability to publish manuscripts and obtain funding, ultimately slowing scientific progress. As a grant writer and scientific editor, I have played a critical role in enhancing the clarity, coherence, and competitiveness of biomedical research grant proposals and manuscripts. My expertise in research communication has directly contributed to securing extramural funding and disseminating scientific findings in high-impact journals. Over the past seven years, I have collaborated with investigators across disciplines to refine their grant narratives, ensuring that the significance, innovation, and feasibility of the proposed work are effectively conveyed to reviewers and the scientific community. I have also assisted with large-scale (e.g., center grant) and instrumentation proposals by helping faculty navigate sponsor requirements and align their proposals with funding agency priorities. Additionally, I have developed structured writing resources, including grant templates and boilerplate text, to streamline the application process and improve proposal consistency. I am also the co-director of Grant Writing Basics, a course that teaches principles of grant writing to graduate students (Geyer et al., Granting access: Development of a formal course to demystify and promote predoctoral fellowship applications for graduate students. *PLoS One*, 2024). My commitment to improving the clarity of scientific communications also involves mentoring early-stage researchers and other who aspire to become scientific editors through a formal internship program. Collectively, my efforts to improve the clarity of grant proposals and manuscripts increases their chances of success and understanding by a broad readership, and ultimately supports the advancement of scientific research.

NIH Biographical Sketch Supplement: Contributions to Science

1. Briefly describe up to five of your most significant contributions to science.
 - While all applicants may describe up to five contributions, graduate students and postdoctorates may wish to consider highlighting two or three they consider most significant.
2. For each contribution, indicate:
 - historical background or status quo that frames the scientific problem
 - the central finding(s)
 - the influence of the finding(s) on the progress of science or the application of those finding(s) to health or technology
 - your specific role in the described work.

NIH Biographical Sketch Supplement: Contributions to Science

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3. You may reference up to five products listed in the Other Significant Products section of your Biographical Sketch Common Form that are relevant to the contributions described in this section.
 - **There is no specific format for referencing the products in this section, however, NIH recommends to include the title, author's last name, publication, and/or year of publication for ease of reference.**
4. Descriptions of contributions may include a mention of research products under development, such as manuscripts that have not yet been accepted for publication. These contributions do not have to be related to the project proposed in this application.
5. Each contribution is limited to 2,000 characters with spaces.

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Formatting citations in the Contributions to Science section

What the contribution (with citations) looks like in SciENcv

Contribution to Science 4

Elucidated molecular mechanisms associated with coagulation and vascular function.

During my work as a research associate, I was involved in characterizing defects in myelopoiesis due to knockdown of transcription factors in zebrafish. Our results showed similarities in myelopoiesis between zebrafish and humans, which validated the use of zebrafish as a model organism in which to study this process (Su F, et al, Zebrafish, 2007). In addition, I also worked on projects focused on understanding the development of bleeding disorders. I contributed to a study that utilized patient samples to identify mutations that disrupt expression of cargo proteins required for factor V (FV) and factor VIII (FVIII) transport, thus leading to the development of combined FV and FVIII deficiency (Zhang et al., Blood, 2006). I also provided assistance on a project that identified pak2a as a gene required for endothelial cell function in order to maintain vascular integrity in a zebrafish model (Buchner et al, Proc Natl Acad Sci USA, 2007). These studies provided me with experience in scientific research and allowed me to contribute to projects that have extended our understanding of disorders of the coagulation system.

- a. Barr JY, Motto D, Von Willebrand Disease: Basic and Clinical Aspects, 1 ed. Federici AB, Lee CA, Bertorp EE, Lillicrap D, Montgomery RR, editors. Oxford, UK: Wiley-Blackwell; 2011. Chapter 4. Modulation of von Willebrand Factor by ADAMTS13; p. 49-62.
- b. Su F, Juarez MA, Cooke CL, Lapointe L, Shavit JA, Yamaoka JS, Lyons SE. Differential regulation of primitive myelopoiesis in the zebrafish by Spi-1/Pu.1 and C/ebp1. Zebrafish. 2007 Fall;4(3):187-99. PubMed PMID: 18041923.
- c. Buchner DA, Su F, Yamaoka JS, Kamei M, Shavit JA, Barthel UK, McCoe B, Amigo JD, Kim S, Hanosh AW, Jagadeeswaran P, Goldman D, Lawson ND, Raymond PA, Weinstein BM, Ginsburg D, Lyons SE. pak2a mutations cause cerebral hemorrhage in redhead zebrafish. Proc Natl Acad Sci U S A. 2007 Aug 28

What the contribution (with citations) looks like when the PDF is generated

3. Defining the Role of GON4L in B Cell Development and Cell Cycle Regulation. B cell development requires a transcriptional regulatory network that governs distinct phases of differentiation and proliferation, although precisely how this is regulated is unclear. My research contributed to elucidating the role of the transcriptional regulator, GON4-like (GON4L), in coordinating progenitor cell differentiation with cell cycle progression (Barr JY et al., J. Immunol. 2017 and Duong KL et al., Exp. Hematol. 2014). Using the Justy mutant mouse model, which harbors a splicing defect that depletes GON4L in B cell progenitors, I demonstrated that GON4L-deficient pro-B cells fail to undergo the critical IL-7-dependent proliferative burst despite establishing key transcriptional programs for B cell differentiation. This failure is linked to a deficiency in the expression of genes that are essential for mitotic progression, including those encoding cyclin D3 and E2F transcription factors. Ultimately, this leads to impaired DNA synthesis, G1/S transition defects, and apoptosis. Notably, transgenic expression of cyclin D3 or other G1/S regulators rescued pro-B cell development, suggesting GON4L is essential for the onset of the cell cycle in this phase of differentiation. These findings provide novel insight into how transcriptional regulation integrates proliferation and differentiation in developing B cells, with broader implications for understanding immune cell development and disorders of lymphopoiesis.
4. Elucidated molecular mechanisms associated with coagulation and vascular function. During my work as a research associate, I was involved in characterizing defects in myelopoiesis due to knockdown of transcription factors in zebrafish. Our results showed similarities in myelopoiesis between zebrafish and humans, which validated the use of zebrafish as a model organism in which to study this process (Su F, et al, Zebrafish, 2007). In addition, I also worked on projects focused on understanding the development of bleeding disorders. I contributed to a study that utilized patient samples to identify mutations that disrupt expression of cargo proteins required for factor V (FV) and factor VIII (FVIII) transport, thus leading to the development of combined FV and FVIII deficiency (Zhang et al., Blood, 2006). I also provided assistance on a project that identified pak2a as a gene required for endothelial cell function in order to maintain vascular integrity in a zebrafish model (Buchner et al, Proc Natl Acad Sci USA, 2007). These studies provided me with experience in scientific research and allowed me to contribute to projects that have extended our understanding of disorders of the coagulation system. a. Barr JY, Motto D, Von Willebrand Disease: Basic and Clinical Aspects, 1 ed. Federici AB, Lee CA, Bertorp EE, Lillicrap D, Montgomery RR, editors. Oxford, UK: Wiley-Blackwell; 2011. Chapter 4. Modulation of von Willebrand Factor by ADAMTS13; p.49-62. b. Su F, Juarez MA, Cooke CL, Lapointe L, Shavit JA, Yamaoka JS, Lyons SE. Differential regulation of primitive myelopoiesis in the zebrafish by Spi-1/Pu.1 and C/ebp1. Zebrafish. 2007 Fall;4(3):187-99. PubMed PMID: 18041923. c. Buchner DA, Su F, Yamaoka JS, Kamei M, Shavit JA, Barthel UK, McCoe B, Amigo JD, Kim S, Hanosh AW, Jagadeeswaran P, Goldman D, Lawson ND, Raymond PA, Weinstein BM, Ginsburg D, Lyons SE. pak2a mutations cause cerebral hemorrhage in redhead zebrafish. Proc Natl Acad Sci U S A. 2007 Aug 28

Still working on SERCC recommendations for including citations
(and for adding citations in Personal Statement)

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NIH Biographical Sketch Supplement

- Personal Statement
- Honors
- Contributions to Science

Example

OMB No. 0725-0047 and 0925-0047 (Approved Through 6/30/2025)

NIH BIOGRAPHICAL SKETCH SUPPLEMENT

Name: **Dr. Jennifer**

Position Title: **Assistant Director, Grant Writer**

Organization and Location: **University of Iowa, Iowa City, Iowa, United States**

Personal Statement

I am a scientific editor and research development professional with a passion for promoting science communication in a manner that is clear and logical. As Assistant Director, Senior Scientific Editor and Writing Consultant in the Scientific Editing and Research Communication Core (SEBCC) at the University of Iowa, I assist investigators across current topics in writing grant proposals and research manuscripts, ensuring clarity, coherence, and alignment with funding agency expectations. I provide a depth of editing and strategic guidance on applications to the NIH, NSF, DOE, and private foundations, and have experience working on large-scale, multi-component grants (e.g., P. A. Smith, 2018; S. H. T. I. I have also developed grant planning frameworks, submission tracking tools, and NIH grant section templates to enhance efficiency and consistency. In addition to grant support, I edit manuscripts for high-impact journals, monitor trends, and contribute to research development through professional symposia. My experience conducting laboratory research has equipped me with the ability to critically analyze scientific findings across a variety of disciplines from the perspective of a non-specialist, allowing me to interpret and contextualize complex research with a unique and insightful approach. Collectively, my experience in laboratory research and scientific editing, combined with my commitment to clear and effective research communication, allows me to help investigators articulate their ideas with precision and impact, ultimately strengthening their funding success and advancing scientific discovery.

Honors

2023	Exceptional Performance Award, Carver College of Medicine, University of Iowa
2018	Professional Association Travel Award, University of Iowa
2018	Outstanding Teaching Assistant Award, University of Iowa
2013	Superior Achievement in Student Teaching, Department of Anatomy and Cell Biology, University of Iowa
2011	May L.C. Franklin Graduate Leadership Award, Department of Anatomy and Cell Biology, University of Iowa
2011	Health Sciences Research Week Poster Award, University of Iowa
2005	Sigma Xi Senior Research Award, Hope College
2005	Biology Service Award, Hope College
2005	Trent Award, American Society of Biochemistry and Molecular Biology
2003	Merck Scholar Research Award, Hope College

Contributions to Science

- Enhancing Scientific Communications and Grant Success through Editorial Expertise. Often, scientists struggle to clearly describe their research findings and goals, which can hinder their ability to publish manuscripts and obtain funding, ultimately slowing scientific progress. As a scientific editor, I have played a critical role in enhancing the clarity, coherence, and comprehensiveness of biomedical research grant proposals and manuscripts. My expertise in research communication has directly impacted the success of numerous funding and research outcomes, including high-impact journals. Over the past several years, I have collaborated with investigators across disciplines to refine their grant submissions, ensuring that the significance, innovation, and feasibility of the proposed work are conveyed effectively to reviewers and the scientific community. I have also worked with large-scale (e.g., cancer) and interdisciplinary proposals by helping faculty navigate complex requirements and align their proposals with funding agency priorities. Additionally, I have developed editorial writing resources, including grant templates and biological text, to streamline the application process and improve proposal consistency. My commitment to improving the clarity of scientific communication also involves mentoring early-stage researchers and other who aspire to become scientific editors through a formal internship program. Collectively, my efforts to improve the clarity of grant proposals and manuscripts, increase their chances of success, and maintaining a broad understanding and editorial support for the advancement of scientific research.
- Elucidating Mechanisms of Sex-Specific and Glial-Specific Asthenogenesis Pathways in Tumor Systems. Tumor systems are a complex interplay of genetic and environmental factors that drive the progression of the disease and mechanisms contributing to sex-specific and glial-specific dysfunction remain unclear. My research contributed to understanding the intracellular mechanisms underlying sex-specific asthenogenesis in Tumor systems, with a particular focus on regulatory T (Treg) cell dysfunction and the role of CD8 T cells in disease pathogenesis. Through the use of an adaptive transfer model, I identified a sex-specific defect in regulatory T cells that led to increased tumor burden in female mice, a well-characterized model of Tumor systems. Unlike their male counterparts, female NOD mice failed to prevent tumor-infiltrated destruction of the regulatory glands due to dysfunctional Treg cells—a defect that could be reversed by treatment with estradiol. These findings provide critical insight into how female and immune system factors interact to drive the female bias observed in Tumor systems. Additionally, I demonstrated that CD8 T cells play a pathogenic role in female Treg dysfunction and exhibit a sex-specific phenotype. The results of this study are critical in understanding the mechanisms underlying female versus male Treg dysfunction, offering potential targets for therapeutic intervention in the early stages of disease. Collectively, my work has advanced our understanding of sex- and organ-specific immune dysregulation in Tumor systems, informing strategies for disease prevention and treatment.
- Defining the Role of CD8 Treg in B Cell Development and Cell Cycle Regulation. B cell development requires a transcriptional regulatory network that governs distinct phases of differentiation and proliferation, although exactly how this is regulated is unclear. My research contributed to elucidating the role of the transcription factor, CD8 Treg, in controlling progenitor cell differentiation with cell cycle progression. Using the early mouse model, which involves a splicing defect that disrupts CD8 Treg in B cell progenitors, I demonstrated that CD8 Treg and CD8 Treg cells fail to undergo the critical IL-7-dependent proliferative burst despite establishing key transcriptional programs for B cell differentiation. This failure is linked to a deficiency in the expression of genes that are essential for cellular progression, including those encoding cyclin D3 and E2F transcription factors. Ultimately, this leads to impaired DNA synthesis, G1/S transition defects, and apoptosis. Notably, transgenic expression of cyclin D3 or other G1/S regulators rescued pro-B cell development, suggesting CD8 Treg is essential for the onset of the cell cycle in the phase of differentiation. These findings provide novel insight into how transcriptional regulation impacts proliferation and differentiation in developing B cells, with broader implications for understanding cellular fate and development and function of B lymphocytes.
- Elucidated molecular mechanisms associated with congenital and acquired factors. During my work as a research associate, I was involved in characterizing defects in myeloid cells due to knockdown of transcription factors in a cellular model. The results showed similarities in myeloid cells between congenital and acquired factors, which validated the use of cellular models as a research tool in which to study this process. In addition, I also worked on projects focused on understanding the development of bleeding disorders. I contributed to a study that utilized patient samples to identify mutations that disrupt expression of large proteins required for factor V (FV) and factor VIII (FVIII) transport, thus leading to the development of combined FV and FVIII deficiency. I also provided assistance on a project that identified a mutation in a gene required for endothelial cell function in order to maintain vascular integrity in a cellular model. These studies provided me with experience in scientific research and allowed me to contribute to projects that have expanded our understanding of disorders of the coagulation system.

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Final Step: certification

- Before you download the PDF you must certify the information
 - This will include both the Common Form and the Biographical Sketch Supplement.
- Once you certify and download an NIH-compliant PDF, you cannot alter it.

Certification

VIEW DRAFT [Download PDF](#)

Each senior/key person is required to complete the following certifications regarding the information provided in their Biographical Sketch:

I certify that the information provided is current, accurate, and complete. This includes but is not limited to information related to domestic and foreign appointments and positions.

I also certify that, at the time of submission, I am not a party to a [malign foreign talent recruitment program](#).

Misrepresentations and/or omissions may be subject to prosecution and liability pursuant to, but not limited to, 18 U.S.C. §§ 287, 1001, 1031 and 31 U.S.C. §§ 3729-3733 and 3802.

To be acceptable to the Federal research funding agency, the date of the signature must be within the past 12 months from when the document is submitted to the Federal research funding agency.

Privacy Act and Burden Statement

Public reporting burden for this collection of information is estimated to average two hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to:

NIH Project Clearance Branch
ATTN: PRA (0145-0279)
5705 Rockledge Drive, MSC 7974
Bethesda, MD 20892-7974

Do not return the completed form to this address.

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Scientific Editing and Research
Communication Core (SERCC)

Questions

→ com-scientificediting@uiowa.edu