

Authorship

Q50 Information and Consent Authorship in Research Collaborations: Exploring Methods for Fairly Allocating Authorship Research Team Project Manager: Elise Smith, PhD, Researcher at the Canadian Research Chair on the Transformations of Scholarly Communication, University of Montreal Co-investigators: Bryn Williams-Jones, PhD, Bioethics Program, University of Montreal Zubin Master, PhD, Alden March Bioethics Institute, Albany Medical College Vincent Larivière, PhD, School of Library and Information Science, University of Montreal Cassidy R. Sugimoto, PhD, School of Informatics and Computing, Indiana University Bloomington David B. Resnik, JD, PhD, Bioethicist and IRB Chair, National Institute for Environmental Health Sciences, National Institutes of Health Adèle Paul-Hus, PhD Candidate, Researcher at the Canadian Research Chair on the Transformations of Scholarly Communication, University of Montreal Dear sir or madam, As mentioned in the previous email, you are invited to participate in a research project about distribution of authorship in multidisciplinary collaborations. In this research, we aim to better understand how researchers currently allocate authorship (responsibility and merit) in disciplinary and multidisciplinary research publications. This will be essential in the creation of an ethical and realistic framework that features norms and practices to help researchers allocate authorship. The goal is to help scholars minimize conflict and confusion surrounding the attribution of authorship, and to ensure that individuals are fairly acknowledged for their contribution in publications. Before agreeing to participate, please take the time to read this explanation outlining the conditions for participation. Feel free to ask any questions that you consider useful to the project manager. Voluntary participation and right to withdraw Your participation in this research project is completely voluntary. You are free to refuse to participate and you may withdraw from this project at any time, without consequences or recrimination. You will not be asked for an explanation for your withdrawal. Should you choose to withdraw, please advise the project manager or any member of the research team. In case of early withdrawal from the study, data will be destroyed immediately. In addition, you will be notified of any new information that might affect your willingness to participate in this research project. Terms of participation Your participation in this study involves answering an online survey. The results obtained during this study will contribute to the advancement of knowledge in identifying and managing authorship distribution in research teams. Confidentiality Research data will be kept anonymous and secure (encrypted or in a locked file) for seven years after the end of the study and will then be destroyed (deleted). Results of this research study may be published in scientific journals; however, it will be impossible to identify you as an individual. Compensation and indemnity No monetary compensation will be provided for your participation. In signing this information and consent sheet, you do not renounce your rights, nor do you release the researchers or the University from their civil and professional responsibilities. Communication of results An email will be sent to participants informing them of the publication(s) that present the data collected in this research. Contact information If you have questions about the scientific or other aspects of the research project, please contact: Elise Smith, PhD in Bioethics Email : elise.smith@umontreal.ca For any concerns about your rights or responsibilities of researchers regarding your participation in this project, you can contact: Comité d'éthique de la recherche en santé (CERES) Telephone number: (514) 343-6111 #2604 Email: ceres@umontreal.ca Web

site: <http://recherche.umontreal.ca/participants> Any complaint regarding your participation in this study may be addressed to the ombudsman at the University of Montreal (514-343-2100; ombudsman@umontreal.ca); the Ombudsman accepts collect calls between 9 am and 5pm. Consent I have read the information and consent sheet. I acknowledge that I may ask questions to the research team and that these questions have been answered. I have taken the desired time to make a decision regarding the participation in this research. In answering the ensuing survey, I fully consent to participate to this research on the conditions mentioned therein.

Q49 Study on the Ethics of Authorship in Research Groups

Q1 When you are leading a team research project, when do you discuss authorship? (Select all that apply.)

- ☐ When the team is first formed, at the outset of the research project (1)
- ☐ Continuously throughout the research project (2)
- ☐ During the manuscript writing process (3)
- ☐ When the manuscript is ready to be published (4)
- ☐ We never discuss authorship (5)
- ☐ I have never lead a team research project (6)
- ☐ Other (please specify) (7) _____

Q2 In working with other researchers on a team project (not as the leading researcher), when, in your experience, is authorship discussed? (Select all that apply.)

- ☐ When the team is first formed, at the outset of the research project (1)
- ☐ Continuously throughout the research project (2)
- ☐ During the manuscript writing process (3)
- ☐ When the manuscript is ready to be published (4)
- ☐ We would never discuss authorship (5)
- ☐ I have never worked on a team research project (6)
- ☐ Other (please specify) (7) _____

Q3 In your experience, who usually decides which individuals to include as authors?

- ☐ The Principal Investigator, without consultation with the team (1)
- ☐ The Principal Investigator, after consultation with the main contributors (2)
- ☐ A few main contributors arrive at a consensus (3)
- ☐ All contributors come to a common agreement (4)
- ☐ Other (please specify) (5) _____

Q76 Definition of authorship naming: the inclusion of different contributors as authors in a research publication.

Q4 How important are the following criteria in naming authors?

	Not at all important (1)	Slightly important (2)	Moderately important (3)	Very important (4)	Extremely important (5)
What they contributed to the research project (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall time spent working on the research project (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking responsibility for the research process and results (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Securing funding (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical work (e.g., data collection, statistical analysis, experiments) (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic rank (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q5 Have you ever encountered disagreement regarding authorship naming?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I am not sure (3)

If No Is Selected, Then Skip To Have you observed any of the followin...If I am not sure Is Selected, Then Skip To Have you observed any of the followin...

Q6 How often do you have disagreements regarding authorship naming in your research collaborations?

- ☐ Rarely (1)
- ☐ Less than half of the time (2)
- ☐ About half the time (3)
- ☐ Most of the time (4)
- ☐ Always (5)

Q7 What factors caused or contributed to disagreements among team members? (Select all that apply.)

- ☐ Differing disciplinary practices (1)
- ☐ Different ways of valuing or measuring the importance of contribution (2)
- ☐ Confusion or lack of clarity regarding authorship definitions (3)
- ☐ Differing values (4)
- ☐ Differing ethics (5)
- ☐ Difference between the team's authorship practices and those of the journal (6)
- ☐ Lack of agreement within the team (7)
- ☐ Other (please specify) (8) _____

Q8 Have you observed any of the following behaviors from scholars as a result of an authorship naming disagreement? (Select all that apply.)

- ☐ Being hostile towards colleagues (1)
- ☐ Undermining the work of colleagues during group meetings/talks (2)
- ☐ Cutting corners on research to compete with a colleague (3)
- ☐ Sabotaging someone's research (4)
- ☐ Producing fraudulent research to compete with or undermine the results of a colleague (5)
- ☐ Limiting further collaboration (6)
- ☐ Other (please specify) (7) _____
- ☐ No specific behavior has been observed (8)

Q9 Have you ever **engaged** in any of the following behaviors as a result of an authorship naming disagreement? (Select all that apply.)

- ☐ Being hostile towards colleagues (1)
- ☐ Undermining the work of colleagues during group meetings/talks (2)
- ☐ Cutting corners on research to compete with a colleagues (3)
- ☐ Sabotaging someone's research (4)
- ☐ Producing fraudulent research to compete with or undermine the results of a colleague (5)
- ☐ Limiting further collaboration (6)
- ☐ Other (please specify) (7) _____
- ☐ I have not engaged in any specific behavior (8)

Q77 Definition of authorship ordering: The order in which authors are named on a research publication.

Q10 What authorship ordering conventions have been used in your collaborative research publications? (Select all that apply.)

- ☐ Alphabetical order (1)
- ☐ Partial alphabetical order (2)
- ☐ Decreasing order of contribution (3)
- ☐ Team leader or principal investigator last (4)
- ☐ Team leader or principal investigator first (5)
- ☐ Team leaders or principal investigators of two groups become first/last authors, depending on who did the majority of the research (6)
- ☐ Other (please specify) (7) _____

Q47 Which author typically receives the most recognition in your collaborative publications?

First author (1)

Last author (2)

All authors (3)

I do not know (4)

Other (please specify) (5) _____

Q48 Which author should receive the most recognition in your collaborative publications?

☐ First author (1)

☐ Last author (2)

☐ All authors (3)

☐ I do not know (4)

☐ Other (please specify) (5) _____

Q11 Who usually determines authorship order in your collaborative research publications?

The Principal Investigator (1)

The lead author (2)

A few key authors (3)

All contributors come to a common agreement (4)

Other (please specify) (5) _____

Q12 Have you ever encountered disagreement regarding author order?

☐ Yes (1)

☐ No (2)

☐ I am not sure (3)

If No Is Selected, Then Skip To Have you observed any of the followin...If I am not sure Is Selected, Then Skip To Have you observed any of the followin...

Q13 How often do you have disagreements regarding authorship ordering in your research collaborations?

- Rarely (1)
- Less than half of the time (2)
- About half the time (3)
- Most of the time (4)
- Always (5)

Q14 What factors have caused or contributed to disagreement in author order among team members? (Select all that apply.)

- Differing disciplinary practices (1)
- Differing ways of valuing or measuring the importance of contribution (2)
- Confusion and lack of clarity (e.g., process, criteria) (3)
- Differing values (4)
- Differing ethics (5)
- Differences between the team's authorship practices and those of the journal (6)
- Lack of discussion and agreement within the team (7)
- Other (please specify) (8) _____

Q15 Have you observed any of the following behaviors from scholars as a result of an author order disagreement? (Select all that apply.)

- Being hostile towards colleagues (1)
- Undermining the work of colleagues during group meetings/talks (2)
- Cutting corners on research to compete with a colleague (3)
- Sabotaging someone's research (4)
- Producing fraudulent research to compete with or undermine the results of a colleague (5)
- Limiting further collaboration (6)
- Other (please specify) (7) _____
- No specific behavior has been observed (8)

Q16 Have you engaged in any of the following behaviors as a result of an author order disagreement? (Select all that apply.)

- ☐ Being hostile towards colleagues (1)
- ☐ Undermining the work of colleagues during group meetings/talks (2)
- ☐ Cutting corners on research to compete with a colleague (3)
- ☐ Sabotaging someone's research (4)
- ☐ Producing fraudulent research to compete with or undermine the results of a colleague (5)
- ☐ Limiting further collaboration (6)
- ☐ Other (please specify) (7) _____
- I have not engaged in any specific behavior (8)

Q19 To what degree are individuals/institutions responsible for the overall research project in collaborative publications?

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
First author (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Last author (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All authors (unequally) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All authors (equally) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research institution of authors (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individuals named in the acknowledgment (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutions named in the acknowledgment (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everyone who contributed to the research (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q21 If there were error(s) found in your collaborative research, who would be most accountable to the public/academic communities?

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
First author (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Last author (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All authors (equally) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Author who made the error(s) (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research institution of authors (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individuals named in the acknowledgements (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Institutions named in acknowledgements (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Everyone who contributed (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q27 Do you use any guidelines to help in the distribution of authorship?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I am not sure (3)

If No Is Selected, Then Skip To End of Block If I am not sure Is Selected, Then Skip To End of Block

Q28 Please specify the guidelines that you have used. (Select all that apply.)

Guidelines developed within the team/lab (1)

Departmental guidelines (2)

Institutional guidelines (3)

Journal guidelines (4)

American Chemical Society (ACS) guidelines (5)

American Physical Society (APS) guidelines (6)

American Psychological Association (APA) guidelines (7)

Committee of Publication Ethics (COPE) guidelines (8)

International Committee of Medical Journal Editors (ICMJE) guidelines (9)

World Association of Medical Editors (WAME) guidelines (10)

Other (please specify) (11) _____

Q29 How useful were the guidelines for the following tasks:

	Not at all useful (1)	Slightly useful (2)	Moderately useful (3)	Very useful (4)	Extremely useful (5)
Naming authors (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ordering authors (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distributing responsibility (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Managing authorship disputes or disagreements (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q30 To what extent have the following factors influenced authorship naming decisions in your collaborative publication(s)?

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
Academic rank (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial contribution (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prestige of researcher (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disciplinary culture (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nationality (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical work (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q31 To what extent have the following factors influenced authorship ordering decisions in your collaborative publication(s)?

	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)
Academic rank (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Financial contribution (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prestige of researcher (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disciplinary culture (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gender (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nationality (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical work (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q32 Please select the extent to which you agree with the following statements.

[illegible]

on research teams (6)						
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Q33 Please assess the value of these contributions in your field of research.

	Not at all important (1)	Slightly important (2)	Moderately important (3)	Very important (4)	Extremely important (5)
Study design (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Literature review (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data collection (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data analysis (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing of the manuscript (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management and coordination (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical work (e.g., experiments) (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q34 What is your level of agreement with the following statements?

	Strongly disagree (1)	Somewhat disagree (2)	Neither agree nor disagree (3)	Somewhat agree (4)	Strongly agree (5)
In most research projects, it is possible to rank authors in order of contribution (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to explain the order and/or distribution of authorship in disclaimers in my published work (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collegiality is common among research collaborators (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Decisions regarding authorship in my research collaborations were arrived at through open discussion and with general agreement (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q35 If not listed as an author, would you expect to receive an acknowledgment for the following tasks? (Select all that apply.)

	Yes (1)	Maybe (2)	No (3)
Creation of study protocol (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Literature review (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data collection (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data analysis (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technical work (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Writing manuscript (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical reading (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proof reading (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contributing materials or analysis tools (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contributing infrastructure (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Securing funding (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management and coordination (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentorship (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General contribution to the research (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing peer review (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q36 Have you ever been disappointed by a colleague's failure to acknowledge your contribution(s)?

- ☐ Yes (1)
- ☐ No (2)
- ☐ I am not sure (3)

If Yes Is Not Selected, Then Skip To Indicate your level of agreement with...

Q37 Explain why you were disappointed in a colleague's failure to acknowledge your contribution:

Q38 Indicate your level of agreement with the following statements:

	Strongly disagree (1)	Disagree (2)	Somewhat disagree (3)	Neither agree nor disagree (4)	Somewhat agree (5)	Agree (6)	Strongly agree (7)
When I acknowledge someone in a publication, I ask for their permission in advance (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer to be asked for permission before being acknowledged in a publication (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acknowledgements received should be considered in promotion and tenure evaluation (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Acknowledgements received should be considered in the evaluation of grant applications (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q78 Do you have any final comments or remarks regarding the fair distribution of authorship in team research? If so, please provide below.

Q39 To how many collaborative (peer-reviewed) publications have you contributed during the course of your career?

1-5 (1)

6-10 (2)

11-15 (3)

16-20 (4)

More than 20 (5)

Q41 What is your present role/rank? (Select all that apply.)

- ☐ Bachelor's student (1)
- ☐ Master's student (2)
- ☐ Doctoral student or candidate (3)
- ☐ Post-doctoral fellow (5)
- ☐ Lecturer (teaching graduate or undergraduate courses) (6)
- ☐ Technician or technician assistant (e.g., statistician, laboratory assistant) (7)
- ☐ Research assistant (8)
- ☐ Research associate (at public or private institution) (4)
- ☐ Senior researcher (at public or private institution) (14)
- ☐ Assistant professor (9)
- ☐ Associate professor (10)
- ☐ Full professor (11)
- ☐ Emeritus professor (12)
- ☐ Other (please specify) (13) _____

Q42 What is your gender?

- ☐ Male (1)
- ☐ Female (2)
- ☐ Other (3)
- ☐ I prefer not to answer (4)

Q40 What is your area(s) of study? (Select all that apply.)

- ☐ Social Sciences (1)
- ☐ Humanities (2)
- ☐ Medical Sciences (3)
- ☐ Natural Sciences and Engineering (4)
- ☐ Other (please specify) (5) _____

Q44 In which general field(s) do you work? (Select all that apply.)

- ☐ Biomedical Research (1)
- ☐ Clinical Medicine (2)
- ☐ Biology (3)
- ☐ Chemistry (4)
- ☐ Earth and Space Science (5)
- ☐ Engineering and Technology (6)
- ☐ Health (9)
- ☐ Mathematics (7)
- ☐ Physics (8)
- ☐ Professional fields (Communication, Education, Library and Information Sciences, Law, Management, Social Work) (10)
- ☐ Psychology (11)
- ☐ Social Sciences (12)
- ☐ Other (please specify) (13) _____

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Biomedical research Is Selected

Q55 In which subfield(s) do you work? (Select all that apply.)

- ☐ Anatomy & Morphology (1)
- ☐ Biochemistry & Molecular Biology (2)
- ☐ Biomedical Engineering (3)
- ☐ Biophysics (4)
- ☐ Cellular Biology, Cytology, & Histology (5)
- ☐ Embryology (6)
- ☐ Genetics & Heredity (7)
- ☐ General Biomedical Research (8)
- ☐ Microbiology (9)
- ☐ Microscopy (10)
- ☐ Miscellaneous Biomedical Research (11)
- ☐ Nutrition & Dietetic (12)
- ☐ Parasitology (13)
- ☐ Physiology (14)
- ☐ Virology (15)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Clinical medicine Is Selected

Q56 In which Clinical Medicine subfield(s) do you work? (Select all that apply.)

- ☐ Addictive Diseases (1)
- ☐ Allergy (2)
- ☐ Anesthesiology (3)
- ☐ Arthritis & Rheumatology (4)
- ☐ Cancer (5)
- ☐ Cardiovascular System (6)
- ☐ Dentistry (7)
- ☐ Dermatology & Venereal Disease (8)
- ☐ Endocrinology (9)
- ☐ Fertility (10)
- ☐ Gastroenterology (11)
- ☐ General & Internal Medicine (12)
- ☐ Geriatrics (13)
- ☐ Hematology (14)
- ☐ Environmental & Occupational Health (15)
- ☐ Immunology (16)
- ☐ Miscellaneous Clinical Medicine (17)
- ☐ Nephrology (18)
- ☐ Neurology & Neurosurgery (19)
- ☐ Obstetrics & Gynecology (20)
- ☐ Ophthalmology (21)
- ☐ Orthopedics (22)
- ☐ Otorhinolaryngology (23)
- ☐ Pathology (24)
- ☐ Pediatrics (25)
- ☐ Pharmacology (26)
- ☐ Psychiatry (27)
- ☐ Radiology & Nuclear Medicine (28)
- ☐ Respiratory System (29)
- ☐ Surgery (30)
- ☐ Tropical Medicine (31)
- ☐ Urology (32)
- ☐ Veterinary Medicine (33)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Biology Is Selected

Q57 In which Biology subfield(s) do you work? (Select all that apply.)

- ☐ Agriculture & Food Science (1)
- ☐ Botany (2)
- ☐ Dairy & Animal Science (3)
- ☐ Ecology (4)
- ☐ Entomology (5)
- ☐ General Biology (6)
- ☐ General Zoology (7)
- ☐ Marine Biology & Hydrobiology (8)
- ☐ Miscellaneous Biology (9)
- ☐ Miscellaneous Zoology (10)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Chemistry Is Selected

Q58 In which Chemistry subfield(s) do you work? (Select all that apply.)

- ☐ Analytical Chemistry (1)
- ☐ Applied Chemistry (2)
- ☐ General Chemistry (3)
- ☐ Inorganic & Nuclear Chemistry (4)
- ☐ Organic Chemistry (5)
- ☐ Physical Chemistry (6)
- ☐ Polymers (7)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Earth and Space Science Is Selected

Q59 In which Earth and Space subfield(s) do you work? (Select all that apply.)

- ☐ Astronomy & Astrophysics (1)
- ☐ Earth & Planetary Science (2)
- ☐ Environmental Science (3)
- ☐ Geology (4)
- ☐ Meteorology & Atmospheric Science (5)
- ☐ Oceanography & Limnology (6)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Engineering and Technology Is Selected

Q60 In which Engineering and Technology subfield(s) do you work? (Select all that apply.)

- ☐ Aerospace Technology (1)
- ☐ Chemical Engineering (2)
- ☐ Civil Engineering (3)
- ☐ Computers (4)
- ☐ Electrical Engineering & Electronics (5)
- ☐ General Engineering (6)
- ☐ Industrial Engineering (7)
- ☐ Materials Science (8)
- ☐ Mechanical Engineering (9)
- ☐ Metals & Metallurgy (10)
- ☐ Miscellaneous Engineering & Technology (11)
- ☐ Nuclear Technology (12)
- ☐ Operations Research (13)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Health Is Selected

Q63 In which Health subfield(s) do you work? (Select all that apply.)

- ☐ Nursing (1)
- ☐ Public Health (2)
- ☐ Rehabilitation (3)
- ☐ Social Sciences, Biomedical (4)
- ☐ Speech-Language, Pathology & Audiology (5)
- ☐ Social Studies of Medicine (6)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Mathematics Is Selected

Q61 In which Mathematics subfield(s) do you work? (Select all that apply.)

- ☐ Applied Mathematics (1)
- ☐ General Mathematics (2)
- ☐ Miscellaneous Mathematics (3)
- ☐ Probability & Statistics (4)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Physics Is Selected

Q62 In which Physics subfield(s) do you work? (Select all that apply.)

- ☐ Acoustics (1)
- ☐ Applied Physics (2)
- ☐ Chemical Physics (3)
- ☐ Fluids & Plasmas (4)
- ☐ General Physics (5)
- ☐ Miscellaneous Physics (6)
- ☐ Nuclear & Particle Physics (7)
- ☐ Optics (8)
- ☐ Solid State Physics (9)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Professional fields Is Selected

Q64 In which Professional subfield(s) do you work? (Select all that apply.)

- ☐ Communication (1)
- ☐ Education (2)
- ☐ Information Science & Library Science (3)
- ☐ Law (4)
- ☐ Management (5)
- ☐ Social Work (6)
- ☐ Miscellaneous Professional Field (7)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Psychology Is Selected

Q65 In which Psychology subfield(s) do you work? (Select all that apply.)

- ☐ Behavioral Science & Complementary Psychology (1)
- ☐ Clinical Psychology (2)
- ☐ Developmental & Child Psychology (3)
- ☐ Experimental Psychology (4)
- ☐ General Psychology (5)
- ☐ Miscellaneous Psychology (6)
- ☐ Social Psychology (7)
- ☐ Human Factors (8)
- ☐ Psychoanalysis (9)

Display This Question:

If In which general field(s) do you work? (Select all that apply.) Social Sciences Is Selected

Q66 In which Social Sciences subfield(s) do you work? (Select all that apply.)

- ☐ Anthropology and Archaeology (1)
- ☐ Area Studies (2)
- ☐ Criminology (3)
- ☐ Demography (4)
- ☐ Economics (5)
- ☐ General Social Sciences, Biomedical (6)
- ☐ Speech-Language Pathology and Audiology (7)
- ☐ Geography (8)
- ☐ International Relations (9)
- ☐ Miscellaneous Social Sciences (10)
- ☐ Planning & Urban Studies of Medicine (11)
- ☐ Political Science and Public Administration (12)
- ☐ Science Studies (13)
- ☐ Sociology (14)

