

Guidelines on Documenting Contributions to Multi-authored Scholarship for Evaluation, Promotion, Tenure, and Advancement

Iowa State University recognizes the value and importance of collaboration in faculty research and scholarship. Collaboration is key to the advancement of the university's mission, land-grant philosophy, and strategic goals. Faculty are expected to document the nature and impact of their contributions to multi-authored, collaborative efforts for evaluation, promotion, tenure, and advancement.

Faculty are expected to clearly define the nature and scope of their collaborations and contributions. This may include describing their roles, duties, activities, and deliverables, such as efforts documented in collaborative agreements or work plans and impacts of their contribution(s) to the partnership. The overall goal is to provide context and promote understanding about faculty contributions to the scholarship.

Authorship

Expectations for styles of documenting authorship vary across disciplines. In many disciplines, there is a growing valorization of collaboration which has made co-authorship an accepted norm. In determining the weight to give to a co-authored publication or product in a faculty member's evaluation, it is important to look for clear documentation of the faculty member's intellectual contribution to the work (see [ISU Authorship Policy in the Policy Library](#)). Given the range of authorship conventions for multi-authored publications or products, a faculty member must describe the citation style used to format their contributions and effort. Faculty must specifically describe their intellectual contribution to each publication or scholarly product listed in their evaluation materials or dossier (e.g., contributed to the conception, design, analysis and/or interpretation of data, etc.) (e.g., [PLOS One Authorship](#)).

Documentation of Collaborations

Faculty are expected to document their intellectual contributions using a narrative, a table, or another format that clearly illustrates the role and contributions of the faculty member to the cited publication or scholarly project. Faculty may desire to discuss their roles and contributions with co-authors to check for understanding and agreement.

Below are sample formats to consider and adapt for use; colleges and departments may encourage other formats. Faculty are expected to follow the specific formatting required by their department

or college. Faculty may wish to modify the table presented below to best highlight the impact of their work (e.g., impact factors, downloads, contracts, foundation or industry funding, percent effort, specify lead major professor in co-major professor arrangements and roles of each major professor) in other disciplines and fields (e.g, Extension, Humanities). Select the most useful approach to summarize the candidate’s contributions.

Sample 1.

Table 1. Overview of Role and Contributions to Multi-authored Publications

# of Publications	Year	Authors	Article Title	Journal/Publisher Title	Acceptance Rate	Role and Percentage Contribution
1	2022	Brown, D. , Blue, J., Black, A., & White, B.	“Exploring Student Education”	<i>Higher Education Today</i>	35%	15% contribution; data collection assistance
2	2021	Brown, D. , Green, T., & Black, E.	“Supporting Holistic Faculty Development”	<i>Journal of Faculty Development</i>	20%	25% contribution; manuscript editing
3	2020	Lewis, Z., Harris, A., Brown, D. , & Black, M.	“Meeting Employee Needs through Professional Development”	<i>CUPA-HR Quarterly</i>	8%	60% contribution; study design, data collection and analyses; co-developed manuscript
4	2012	Brown, D. & White, B.	“A Beginning [...] University Text (1 st Edition)”	<i>John Wiley & Sons.</i>	N/A	33% contribution; initiated the project. Drafted four chapters, created step-by-step learning strategies.

Sample 2.

Table 2. Overview of Roles or Contributions to Scholarly Outputs on Collaborative Funded Projects

I developed three collaborative projects with two departmental colleagues at Iowa State University and three scholars from Institution A, Institution B, and Institution C. I describe these major collaborative projects in the table below. I expect to remain engaged in this highly collaborative work. Students have benefitted from this effort in important ways, such as receiving scientific training and networking with faculty scholars internal and external to the university. These experiences are important for their education and preparation to work in industry and prepare them for further growth and development in their careers.

Projects

<u>Collaborative Projects (Funding Sources)</u>	<u>Collaborators, Institution</u>	<u>Percentage of Role or Contribution</u>	<u>Scholarly Outputs</u>
Project 1 (Funding Agency Name)	Name, Iowa State University Name, Iowa State University	60% contribution; coordinated meetings and activities	Advanced students' scientific training, education, and future career development
Project 2 (Funding Agency Name)	Name, Institution A Name, Institution B	20% contribution: supported data collection and edited reports	Cultivated networking with faculty scholars external to the university
Project 3 (Funding Agency Name)	Name, Institution C	10% contribution; assisted with data analyses	Cultivated networking with faculty scholars external to the university

Sample 3.**Table 3. Overview of Funded Grants**

# of Grants	Funding Agency	Grant Title	Award Period	Investigators	Total Funding	Your Share of the Funded Grant
1	USDA/NIFA-BRAG	Genome-wide assessment of off-target effect and removal of transgenes associated with TALEN-based gene editing in plant	09/01/13 – 08/31/16	PI B. White ; Co-PI J. Blue; Co-PI A. Black	\$499,663	\$160,000 to Spalding Lab
2	DOE-BES	Structure/Function of the Novel Proteins LCIB and LCIC in the Chlamydomonas CCM	08/15/2012-08/14/2015	PI B. White Subcontract to Danforth Center	\$510,000	\$310,000 to Iowa State and the Spalding Lab
3	ISU Plant Sciences Institute Innovative Grant	SRISPR/Cas9 system for targeted genome editing in rice	07/1/13-06/30-15	PI B. White , Co-PI B. White & A. Harris	\$120,000	\$60,000 to the Spalding Lab
4	Office of International and Integrative Activities, NSF 11A-1449187	EAGER: Understanding and Strengthening STEM Faculty Engagement, the Institutional Environment and Transformative Research	09/2014-08/2016	PI B. White ; Co-PI Z. Lewis	\$299,991	\$99,991 to Schmittmann
5	Materials Theory Program, NSF, DMR-1005417	Statistical Physics of Systems far from Equilibrium	09/2010-08/2014	PI B. White ; Co-PI E. Black	\$615,000	\$307,500 to Schmittmann

Sample 4.

Step 1. Describe grant pursuits and successes.

Since joining ISU, a total funding of \$ AMOUNT has been granted to my group, with the two major sole-PI federal supports received in 2017–2018. To date, I have received five external competitive funds from Iowa Energy Center (sole PI, \$ AMOUNT), NSF Systems and Synthetic Biology (sole PI, \$ AMOUNT), NSF CAREER (sole PI, \$ AMOUNT), NSF Cellular & Biochemical Engineering (co-PI, \$ AMOUNT allocated to XYZ), and DOE Ames Lab (co-PI, \$ AMOUNT allocated to XYZ) totaling \$ 1.66 M; received four external noncompetitive funds from CBiRC (\$ AMOUNT as PI and \$ AMOUNT allocated to XYZ as co-PI), totaling \$ 0.58 M; received five internal funds from ISU (\$ AMOUNT as PI and AMOUNT allocated to XYZ as co- PI), totaling \$ 0.2 M.

Step 2. Discuss the foundation of the faculty member's contributions and application areas.

With this support, my group has focused on developing a verified and validated general-purpose FSI modeling and simulation framework and its implementation in large-scale, high-performance computing environments. The framework combines parametric design, geometric modeling, computational fluid and solid mechanics, FSI, and optimization into a single platform. The developed technologies are applied to studying engineering and science problems involving wind turbine rotor–tower interaction, gas turbine efficiency, hydraulic energy absorbers, turbulent flow around complex geometries, and valvular mechanics.

Step 3. Explain role in collaborative efforts clearly.

I have developed multiple collaborative projects with the faculty members from ISU as well as other institutions. Information on the major collaborative projects is listed below. I intend to continue this highly collaborative nature of work because students will receive tremendous benefit in the form of rigorous scientific training through these interdisciplinary projects; this will prepare them to stand out competitively in the biorenewables industry and prepare them in the corresponding academic field for their future career development.

Sample 3.

Table 3. Overview of Funded Grants

Collaborative Projects (Funding Sources)	Collaborators (Institution)	Role of XYZ (Scholastic outputs)
PROJECT AREA A (CBiRC, Iowa Energy Center, and NSF-CBE)	D. Brown (Avengers Univ.) J. Blue (Stark Foundation) A. Black (SHIELD)	(PI) Initiating the collaborations with computational biologists and leading multiple projects (4 published papers; 4/4 as the corresponding author)
PROJECT AREA B (Funding source(s))	D. Brown (Avengers Univ.)	(Co-PI) mentoring the co-advised student for genome editing and construction of genetic circuits
PROJECT AREA C (Funding source(s))	D. Brown (Avengers Univ.) A. Black (ILM Lab)	(Co-PI) Responsible for building yeast consortia to deconstruct biomass; collaborating with microscopy specialists to monitor the degradation processes
PROJECT AREA D (Funding Source(s))	D. Brown (Avengers Univ.)	(PI/Co-PI) Developing the genetic tools for the nonconventional production host (preparing 1 manuscript as one of the 2 corresponding authors)