III. EFFECTIVENESS IN AREAS OF RESPONSIBILITY

A. Self-assessment of Accomplishments and Impact of Research/Creative Activities

Your accomplishments in scholarship related to research belong in Section II above. Use this section to articulate accomplishments that are not part of your scholarship such as pursuing and securing sponsored funding to develop, sustain and grow your research program, your role in joint and collaborative efforts and other expectations outlined for this area in your PRS.

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.

Comment [A1]: Paragraph talking about grants pursuits and successes

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.

Comment [A2]: Paragraph talking about the foundation of faculty members' contributions and application areas. Note this section is from a different portfolio than the rest of the section.

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.

Comment [A3]: Paragraph and table clearly articulating role in collaborative efforts. This information is important and should be articulated clearly. Feedback from college committee and dean's office is that this table format is clear, and easy to read and understand.

Collaborative projects (Funding sources)	Collaborators (Institution)	Role of XYZ (Scholastic outputs)
PROJECT AREA A (CBiRC, Iowa Energy Center, and NSF-CBE)	Steve Rogers (Avengers Univ.) Tony Stark (Stark Foundation) Natasha Romanoff (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))	Arya Stark (House Stark, Westeros U)	(Co-PI) mentoring the co-advised student for genome editing and construction of genetic circuits
PROJECT AREA C (Funding source(s))	Leia Skywalker (ILM Lab) Wedge Antilles (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))	Carol Danvers (Air Force Research Lab)	(PI/Co-PI) Developing the genetic tools for the nonconventional production host (preparing 1 manuscript as one of the 2 corresponding authors)