

BIOSCIENCES AREA FY26 LDRD PRIORITIES

Please use the [matrix](#) below from the [Biosciences Area Strategic Plan](#) (BSP) as a reference for strategic priorities. For LDRD proposals, the Area topics are based on the **Research Challenges** and **Technology Development Opportunities** to address **Societal Challenges**. Successful proposals will address goals for Transforming Biological Research, Energy, Environment, and/or Health as outlined in the BSP. Alignment with one or more strategies (listed across the top and left side of the matrix) is strongly encouraged.

Energy [POC: [Blake Simmons](#)]

- Developing New Sustainable and Viable Products
- Enabling Bioconversion of Diverse Feedstocks
- Discovering Fundamentals in Photosynthesis and Beyond

Environment [POC: [Susannah Tringe](#)]

- Uncovering Molecular Foundations for Predictive Ecology
- Building Models to Bridge the Gap Between Lab and Natural Systems
- Accelerating Environmental Solutions w/Biology

Human Health [POC: [Junko Yano](#)]








- Understanding Biological Processes Vital to Health
- Addressing Environmental Impacts on People
- Developing Treatments and Mitigations for Biopreparedness

Transforming Biological Research [POC: [Nigel Mouncey](#)]

- Advancing Data Science and Computing for Biology
- Growing Next-Generation Omics and Gene Editing Tools
- Developing Hardware to Support Biology
- Advancing Experimentation by Integrating Technologies

Proposals should be defined with specific end-of-project outcomes, focusing on mission relevance or use-inspired applications. Proposals will be judged on scientific merit, the potential for a clear impact on a field of study, and alignment with potential future directions for external funding (e.g., DOE, NIH, DOD).

TOOL AND DATA VS BIOSCIENCES RESEARCH FOCI

		 Advancing Data Science and Computing for Biology	 Growing Next Generation Omics and Gene Editing Tools	 Developing Hardware to Support Biology	 Advancing Experimentation by Integrating Technologies
ENERGY	 Developing New, Sustainable, and Viable Products	●	●		●
	 Enabling Bioconversion of Diverse Feedstocks	●	●	●	●
	 Discovering Fundamentals in Photosynthesis and Beyond		●	●	
ENVIRONMENT	 Uncovering Molecular Foundations for Predictive Ecology	●	●		
	 Building Models to Bridge the Gap Between Lab and Natural Systems	●		●	●
	 Accelerating Environmental Solutions w/ Biology		●	●	●
HUMAN HEALTH	 Understanding Biological Processes Vital to Health	●	●		
	 Addressing Environmental Impacts on People	●	●		
	 Developing Treatments and Mitigations for Biopreparedness		●	●	●