

➔ *Shaping the Future:  
Bioscience, Innovation, and  
Opportunity in South Dakota*



south dakota  
**biotech**

*Connect. Collaborate. Innovate.*

Kara McCormick, PhD  
Director of Science and Operations

We are the state affiliate of the Biotechnology Innovation Organization (BIO). We're dedicated to advancing biotechnology through expanding research, advocacy, funding, education, infrastructure development and promotion.

We're here to **connect leaders and experts**. We're here to **collaborate to shape the future**. We're here to **drive innovation to feed, fuel, and heal the world**.



### CONNECT

**With every connection you make, your world of possibility grows.**

Business prospects. Lawmakers. Legislators and regulators focused on biotech issues. Funding sources. Cost-saving programs. We're here to put you in touch. Because together we are the forward thinkers who are meant to make a difference.



### COLLABORATE

**Great minds think alike.**

Through collaboration, good does become great. Thoughts are challenged. Dreams are pursued. Big things happen. We'll provide the forums for working together. All you have to bring is an open mind.



### INNOVATE

**Innovation doesn't just happen.**

But when it does, it's a beautiful thing. Here, good enough is never good enough. We're in this to solve big challenges. We're in this together. And together, we'll innovate. Again and again.



### FEEDING

Biotechnology is allowing us to become focused on feeding through sustainable, scalable and cost-effective solutions. It's at the heart of state-of-the-art food testing laboratories. It's helping us feed agriculture from dried distillers grains to generate more protein in the world's food supply.



### FUELING

South Dakota is a leader in renewable energy using wind, solar and biofuels to produce feed and fuel from the same land. We're researching ways to use aquatic weeds and sewer water as feedstock for fuel. We're setting quality standards for ethanol and finding new uses for co-products.



### HEALING

Biotechnology is everywhere. And it does amazing things like heal the world. Through large-scale animal platform technology that produces human antibodies. Through the detection of biomarkers associated with cancers and neurological diseases. Through innovative methods of antimicrobial protection, drug delivery and tissue repair.



## The value at stake for the U.S. through 2030 and beyond is significant

**Cumulative direct economic value**  
(2025–2030, \$B USD)

There are multiple growth scenarios for the U.S. bioeconomy relative to the global bioeconomy; the difference in relative growth rates will impact the value that is or is not realized in the U.S. (value at stake<sup>1</sup>).

Beyond 2030, the U.S. can **unlock additional value**

Unrealized potential opportunities include:



Eradicating diseases and pests



Accelerating commercialization of innovation



Repatriating production for strategic growth



Biosecurity / national defense

Value at stake

**\$400B**

1. Cumulative value at stake is defined by the gap between base and high-case projections in the period of 2025–2030.



<https://www.bio.org/>





## Federal Investment Landscape — Why It Matters Now



### TEconomy and NSCEB insights:

- The **NSCEB 2025 report** calls for “urgent investment in biotechnology workforce and education,” warning the U.S. risks falling behind China in biotech leadership.
- Federal priorities are converging** around *biomanufacturing, AI, clean energy, and health security* — all of which align with South Dakota’s strengths.
- New or expanding programs include:
  - NSF TIP Initiatives/ Private & Public Partnerships**
  - DOE/DOD Biomanufacturing & Alternative Products**
  - BioMADE and NIIMBL workforce expansions**
  - Continued **SBA FAST and SBIR/STTR** funding emphasis on inclusive innovation and rural entrepreneurship





## State Bioeconomy Snapshot:

### *Bioeconomy Impact Modeling Report:*

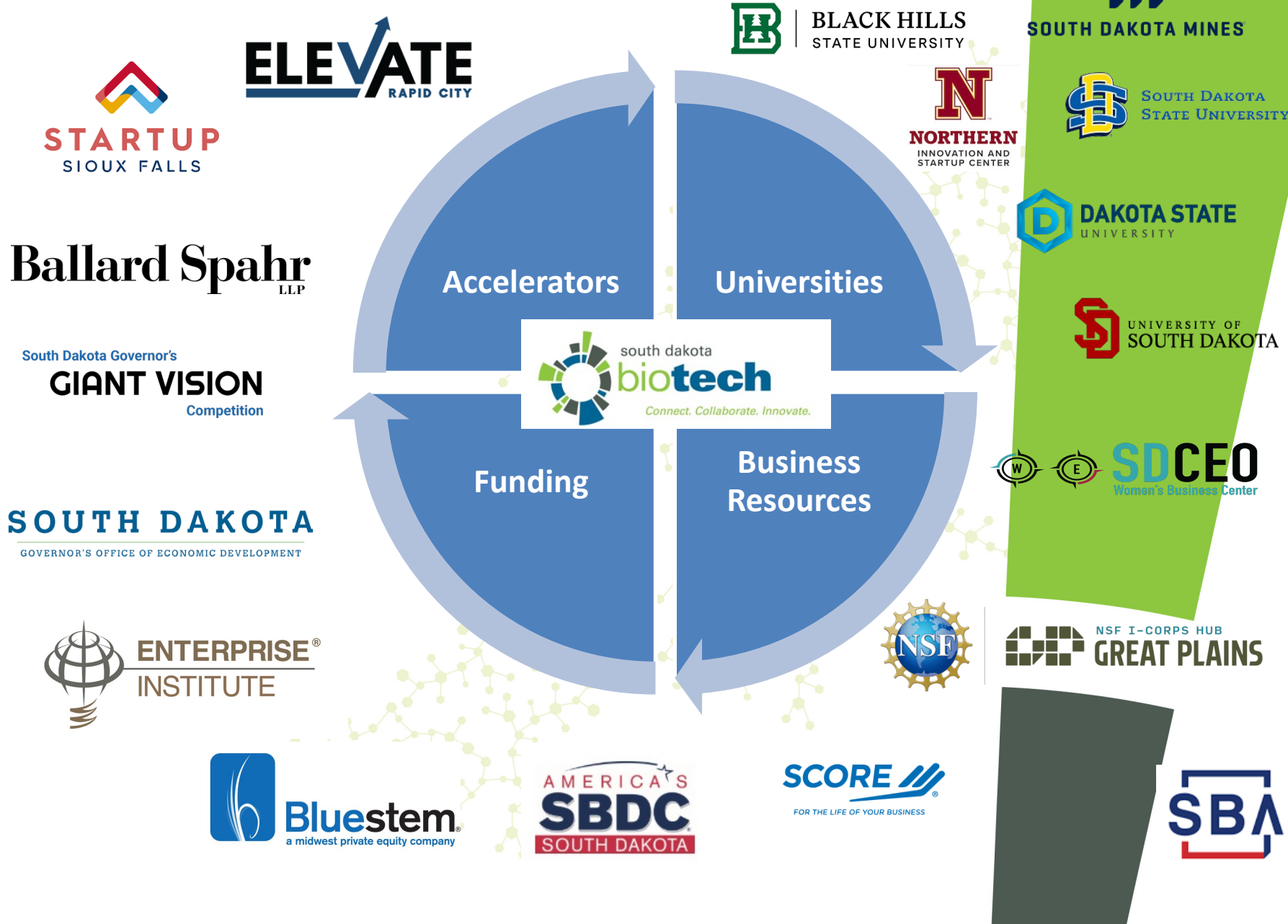
- **Over \$4.4B economic impact from biotech and bio-based industries**
- **Growth across agtech, health sciences, digital health, and biomanufacturing**
- **Innovation and Education are converging**

The plan's top goal is to **strengthen South Dakota's competitiveness** in science, technology, engineering, and math (STEM) fields through targeted education and workforce programs. Strengthening commercialization opportunities.

<https://sdepacor.org/sd-science-technology-plan/>



# South Dakota FAST Partners



# FAST PROGRAM OVERVIEW

1

## Intake & Training

Business basics, commercialization strategy, and SBIR/STTR introduction and coaching — open to all SD entrepreneurs and students, delivered in-person and online.

2

## Customer Discovery

Applicants awarded up to a \$1,500 grant to support market verification and supplement NSF I-CORPS training.

3

## Business Plan Implementation

Applicants awarded up to a \$10,000 grant to complete preliminary studies to increase competitiveness in SBIR/STTR submissions and other future funding opportunities.

ONGOING ONE-ON-ONE SUPPORT

“

*The Business Implementation Funding from FAST Launch Program enabled our company to develop some of the core components of a cloud-based radiation simulation platform, positioning us closer to the stage of receiving large external fund. — Jing Liu, ARTS LLC*



# Team and Support



Joni Ekstrum

EXECUTIVE DIRECTOR



Kara McCormick

DIRECTOR OF SCIENCE AND OPERATIONS

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## FAST LAUNCH Support Team

Beth Lambeth, Associate Vice President for Research, SD School of Mines and Technology

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Tung Nguyen, Partner, Thel Consulting

Craig Arnold, CEO, Dakota BioWorx

Kirby Fuglsby, Technology Transfer Officer, University of South Dakota

Tom Eitreim, Executive Director, Enterprise Institute

South Dakota Chamber of Commerce & Industry

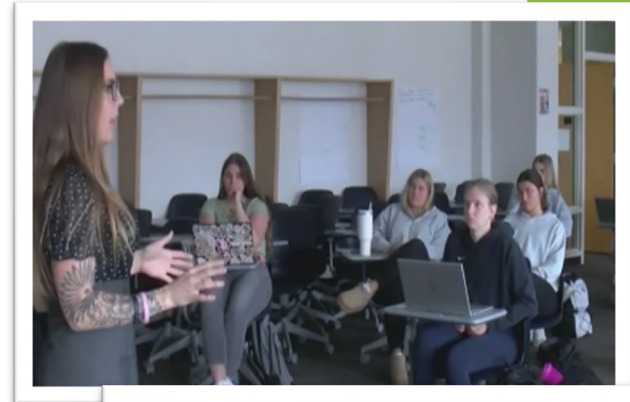
Ballard Spahr

SBIR Program support through the SBDC

## Opportunities & Next Steps

### How Students and Faculty Can Engage

- Join industry networks, online and in person.
- Partner with innovation opportunities, consider opportunities for team building
- Internships and collaborations with industry partners or startup communities. Emerging opportunities in **biomanufacturing, digital health, and ag-bio tech.**
- Skill adaptation to changing technologies**



### A Call to Action:

Encourage attending regional networking events, pitch events, and innovation expos. Building connections online and in person.

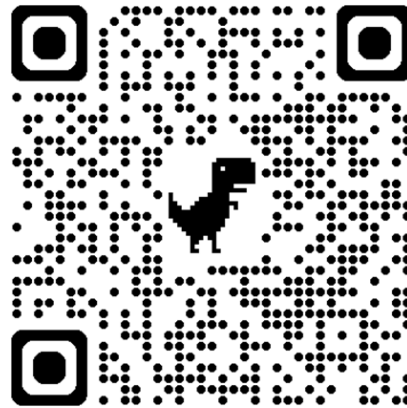
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**Growth through curiosity, resilience, and community.**

**Let's stay Connected! Reach me at [kara@sdbio.org](mailto:kara@sdbio.org)**



<https://www.linkedin.com/company/south-dakota-biotech>



<https://www.sdbio.org/>