

KANSAS BIOSCIENCE
A U T H O R I T Y

***Fulfilling the Vision
of National Bioscience Leadership for Kansas***

Partners in Bioscience Growth ●





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Kansas Economic Development Alliance

Fall Meeting

September 21, 2010

Tom Thornton

President and CEO

Kansas Bioscience Authority

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Kansas Bioscience Authority

- The Kansas Bioscience Authority (KBA) is a \$581 million investment fund established by the Kansas Legislature to:
 - Expand research
 - Foster formation and growth of bioscience startups
 - Facilitate expansion of bioscience companies statewide

*We are doing nothing less than
making bioscience the fourth leg of our economy —
and leading the state's economic recovery.*





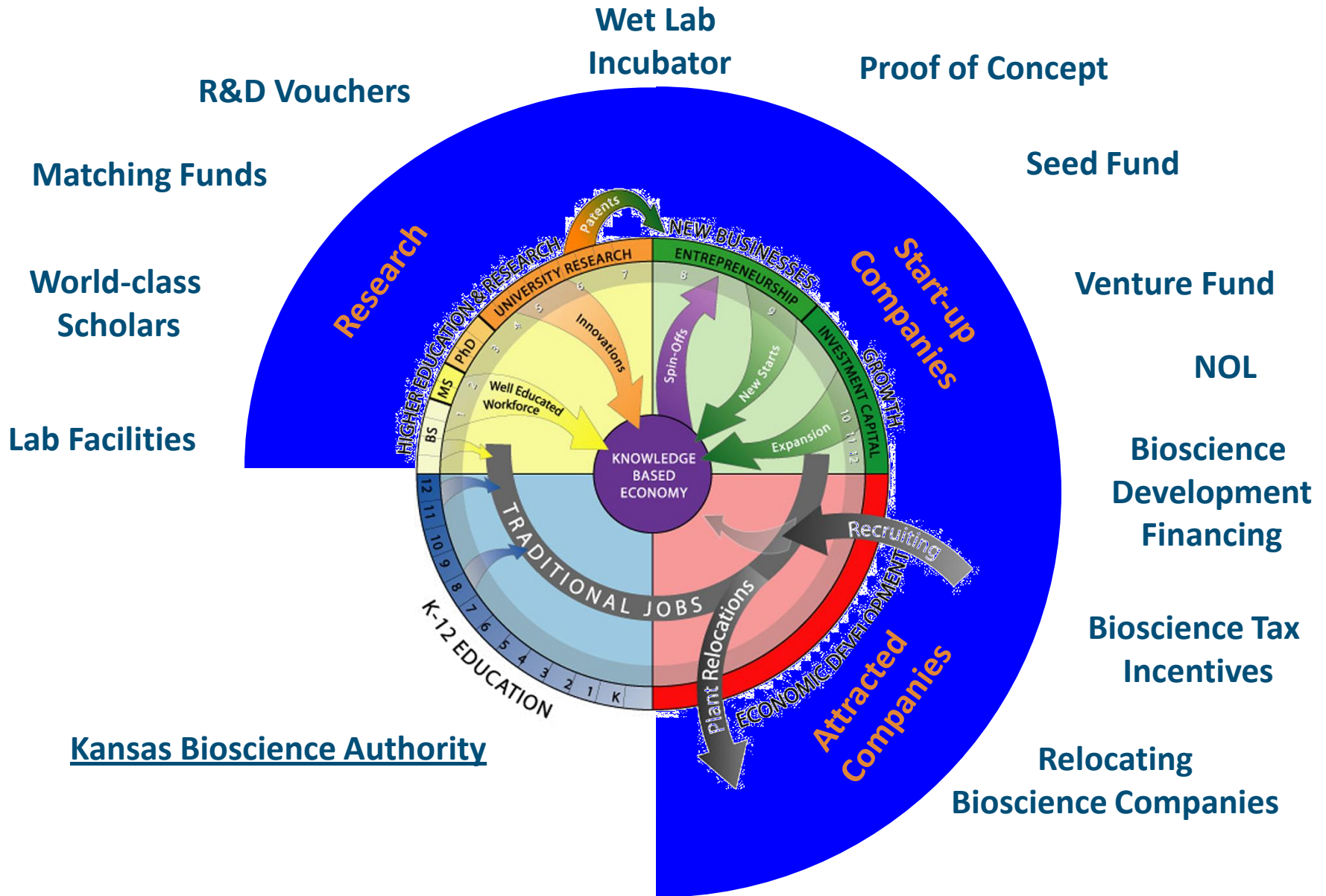
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Our Approach to Bioscience Growth

- Make Kansas nothing less than a **preeminent bioscience center** with excellent research, education, and vibrant bioscience industry clusters.
- Tackle **national bioscience challenges**.
- Invest in **existing bioscience strengths** — sectors in which the state has the best chance for success.
- Operate like a **venture fund**.
- Serve as a **strategic partner**.
- Focus on **returns**.



Our Approach to Bioscience Growth





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Major Goals

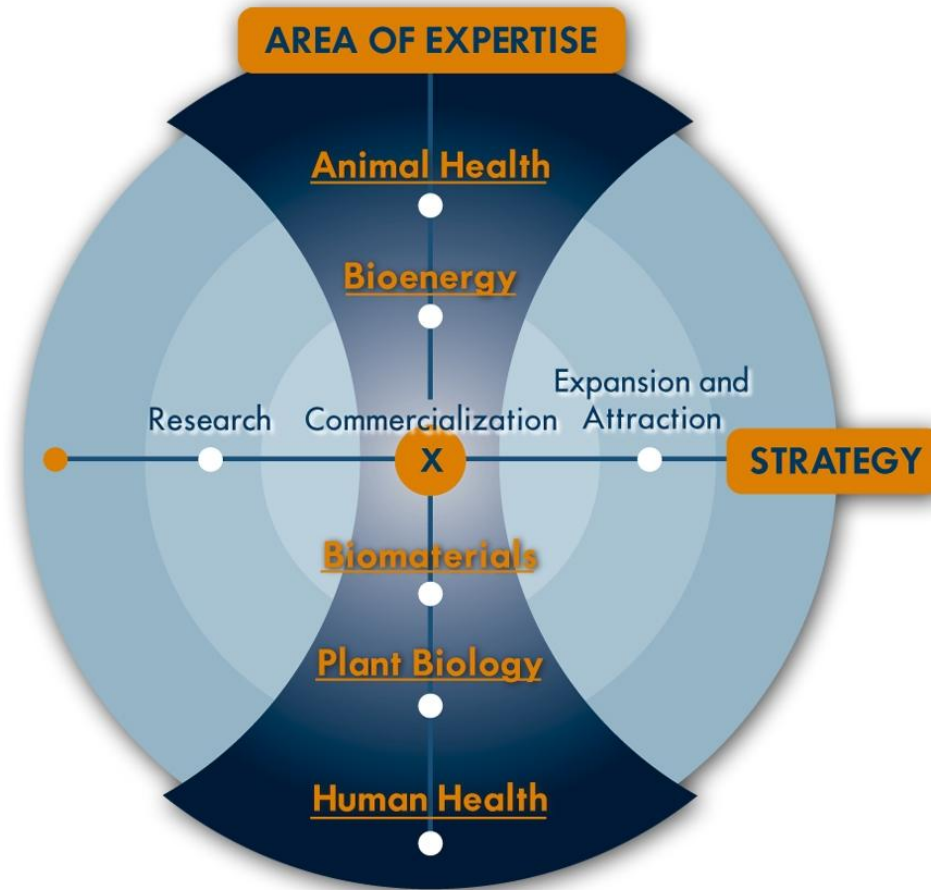
- Research and development: Increase annual **federal bioscience R&D investment** from \$130 million in 2004 to \$650 million in 2021.
 - Status: \$279 million in federal fiscal year 2009, the most recent data
 - *Kansas ranks #1 ranking in the nation for its increase in baseline NIH funding, with a 37 percent jump from FY04 to FY09.*
- Increase **annual private venture capital investment** from \$0 in 2004 to \$200 million in 2021.
 - Status: \$61.6 million in calendar year 2009
- Increase the number of **bioscience companies** from 883 in 2004 to 1,500 in 2021.
 - Status: 1,112 bioscience companies in 2009, the most recent data
- Increase total **employment in the bioscience sector** from 14,137 in 2004 to 23,000 in 2021.
 - Status: 16,525 in total bioscience employment in 2009, the most recent data





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Focusing on Kansas' Bioscience Strengths



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Remarkable Outcomes

Return on Investment

- KBA investments have helped generate 1,184 new **jobs**; \$150.5 million in **capital expenditures**; \$77.3 million in new **research funding**; and **\$34.4 million in equity investments**.
- *Including estimated wages of jobs, that represents a \$6.67 return to the state's economy for each \$1 invested by the KBA!*





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Kansas: #5 in the nation for biotechnology strength!

Business Facilities
2010 Rankings Report

Biotechnology Strength

1. California

2. Texas

3. Pennsylvania

4. Massachusetts

5. KANSAS

6. New Jersey

7. North Carolina

8. Illinois

9. Maryland

10. Ohio

Business Facilities magazine
2010 Rankings Report

Partners in Bioscience Growth





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#5 National Ranking

- “A **major leap forward** for the Sunflower State ... The upward movement by Kansas was one of the most significant improvements measured.”
- “Kansas clearly has shown that it is a **biotech force to be reckoned with**, and it has staked a claim to a leadership position for years to come.”
- Kansas has an impressive and expanding program, **spearheaded by the KBA**, that brings together industry, higher education and government in a coordinated, targeted effort ... A **uniquely focused and highly successful effort.**”





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A Year of Bioscience Success in Kansas

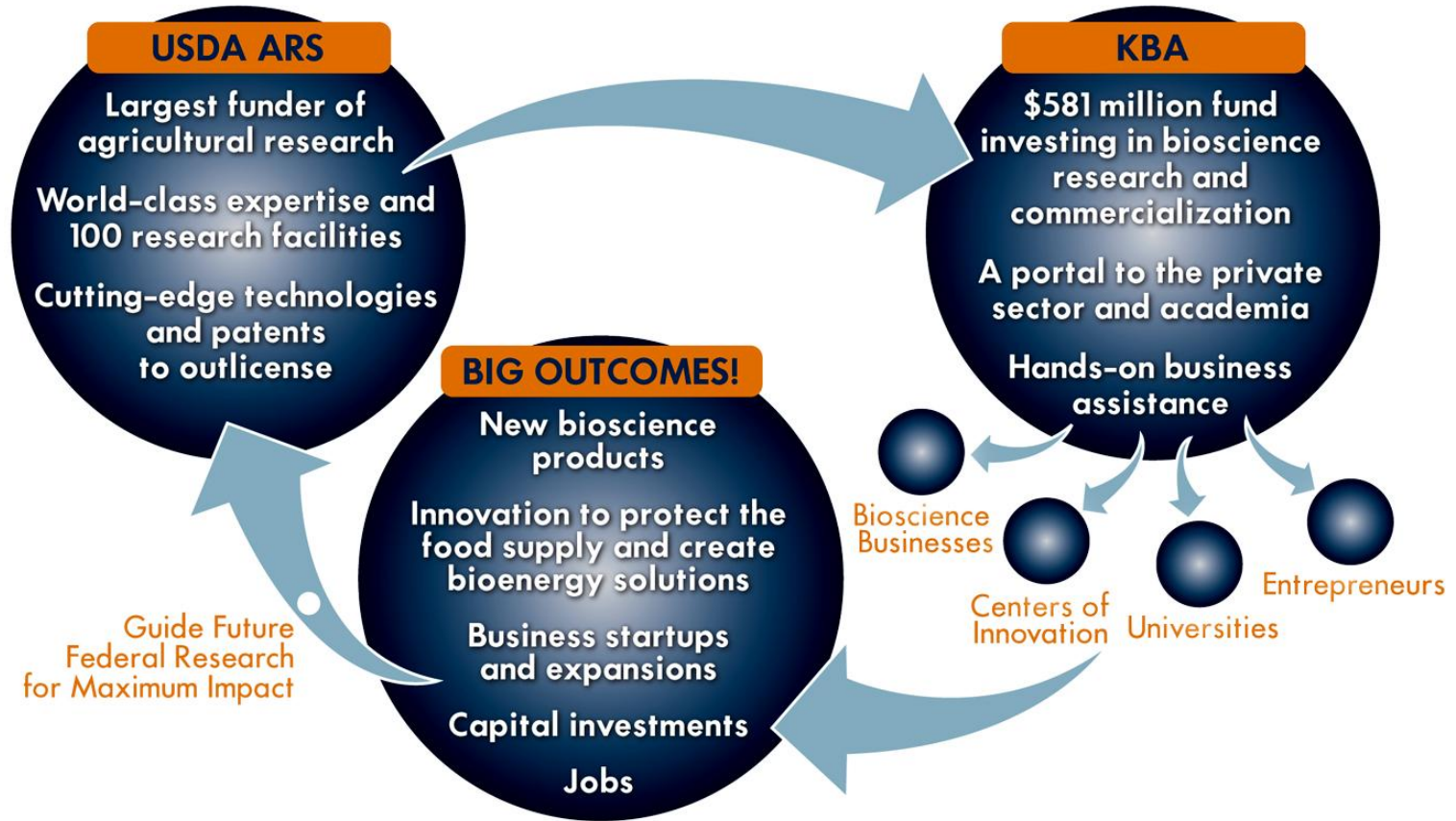
- The KBA's highest priority was the **commercialization** of new bioscience technologies.
 - Launched **Heartland BioVentures**
 - Launched **Kansas Bioscience Growth Fund**





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One of Only Nine in the Nation: Agricultural Technology Innovation Partnership



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Spotlight: Protecting the American Food Supply and Agriculture Economy

- The **most imminent threat** to our nation's homeland security is a biological attack.
 - Nation gets a failing grade for its ability to recognize, respond to and recover from a biological attack
- The **National Bio and Agro-Defense Facility (NBAF)** will meet this challenge with accelerated scientific research to combat foreign-animal diseases *by expanding our country's ability to create drugs, vaccines, and other countermeasures.*
- After a highly competitive multi-year selection process, Kansas was selected on the merits as the best home for the **\$650 million National Bio and Agro-Defense Facility.**
 - \$650 million facility; 1,500 construction jobs; \$3.65 billion economic impact; international leadership in animal health research

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Kansas: Best Home in the Nation for the NBAF on the Merits

- Kansas has a **unique understanding of the NBAF mission.**
- Kansas offered an **unbeatable site** and the **perfect neighbor** with the Biosecurity Research Institute at Kansas State University.
- Kansas is **experienced, tested, and prepared.**
- Kansas demonstrated **unified public- and private-sector support.**
- Kansas is part of the KC Animal Health Corridor, a **world leader in animal health research and development.**
 - The corridor set Kansas apart. We're not a greenfield site, and this is not aspirational. One third of this global sector is already here.
 - *When it comes to animal health, there's no learning curve in Kansas!*





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Spotlight: Protecting the American Food Supply and Agriculture Economy

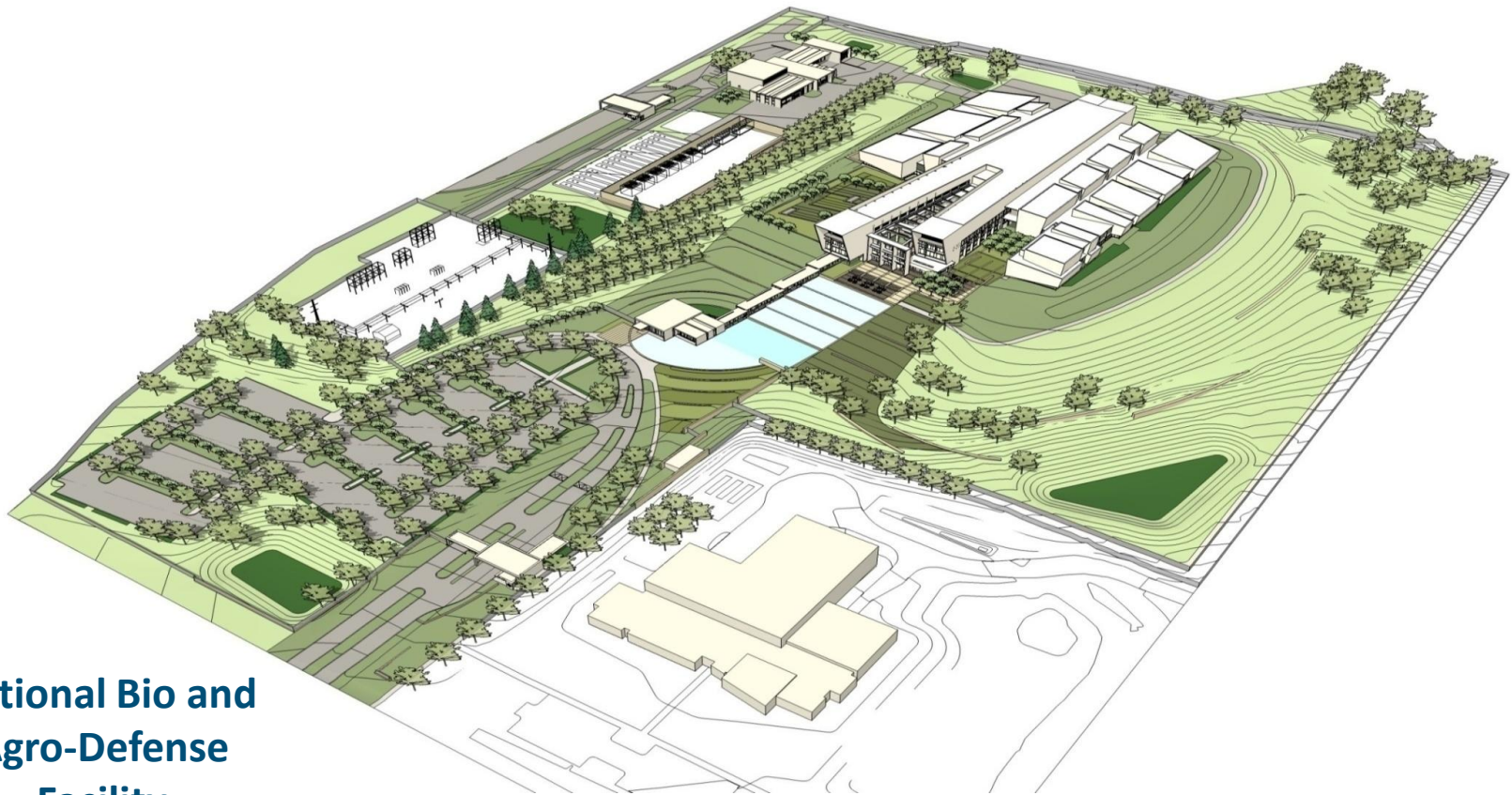
- **\$32 million in congressional appropriations** keeps the project on track and a national priority.
- **Magnetic effect**
 - A **second federal research facility** — the Arthropod-Borne Animal Diseases Unit — moved from Wyoming to Kansas.
 - **\$12 million was awarded** for an animal disease research center of excellence at Kansas State University led by KBA eminent scholar Dr. Juergen Richt.
 - Innovative companies such as **Cargill** and **Megastarter** are expanding in and moving to Kansas ... where the innovation is.





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Spotlight: Protecting the American Food Supply and Agriculture Economy



**National Bio and
Agro-Defense
Facility**

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Spotlight: Cancer Drug Development

- The KC area ranks 27th in population but is **7th in the nation for clinical research**.
- Kansas is in the **top 10 in the nation for clinical trials and drug development** activities, including significant clinical trials capacity in the Wichita region.
- The **University of Kansas School of Pharmacy** is perennially ranked among the best in the nation.
- *From FY04 to FY09, **Kansas ranked #1 in the nation** for its increase in baseline funding from the National Institutes of Health — with a 37 percent jump in dollars attracted to the state.*





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Spotlight: Cancer Drug Development

- **The KBA is partnering closely with KU and partners across the state** to share Kansas' unique cancer drug development capabilities with the world and deliver cutting-edge treatments closer to home:
 - **National town hall in KC** attracted senior government officials and thought leaders from industry, venture capital, academia, venture philanthropy and non-profit sectors
 - **Eminent scholars** Drs. Blake Peterson, David Volkin, and Rakesh Srivastava and a rising star scholar
 - KU Cancer Center **cluster hire** of three scientists for the research program in transcriptional and chromosomal regulation
 - **Renovation** of the Wahl/Hixon Research Complex at the KU Medical Center to meet the near-term needs for basic and translational cancer research





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Spotlight: Energy Independence

- America must move toward energy independence, and the federal government is investing heavily in R&D. This is an opportunity for Kansas to expand its research and industrial activities in this sector.
- Many are taking an “all of the above” approach to include oil, natural gas, and alternative energy sources.
- With our research strength and natural resources, Kansas can drive the next generation of bioenergy: cellulosic ethanol.
 - Dry land crops such as sorghum
 - Switchgrass
 - Wheat
 - Algae
- ***The KBA is investing in this with centers of innovation in bioenergy and plant biology.***





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Always Looking Forward

In FY 2011, **we are committing \$36.9 million** to advancing Kansas' national bioscience leadership:

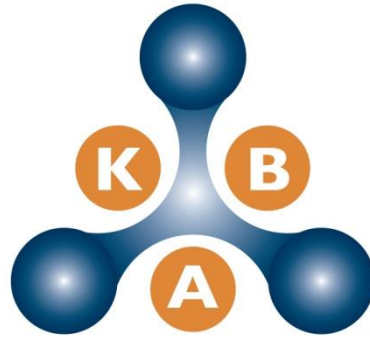
- **Share Kansas' cancer drug development capabilities with the world** and deliver cutting-edge treatments closer to home
- Attract additional **eminent and rising star scholars**
- Provide **hands-on business assistance** and attract significant new **startup and growth capital** to Kansas
- Increase **commercialization of new technology** by linking industry and academic in established centers of innovation
- Leverage the **magnetic impact of the animal health sector**



We want to work with you to make it happen!

Look for potential bioscience opportunities,
and call the KBA so we can
discuss how we might work together
to advance Kansas' leadership in this industry.

www.kansasbioauthority.org



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