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Testimony Before the U.S. Senate Committee on Small Business and Entrepreneurship
Hearing: Fueling Innovation: The Role of Small Businesses in America's Bioeconomy
April 7, 2026

Opening

Senator Young and distinguished guests.:

Thank you for the opportunity to testify today.

My name is Aaron Schacht, and I am the CEO of BiomEdit, a biotechnology company based in Indiana. Our company develops synthetic biology solutions using engineered microbes to address challenges in animal health, agriculture, and, increasingly, areas relevant to human health.

I appreciate the Committee's focus on the role of small businesses in advancing the bioeconomy. My remarks today are grounded in operating a company at the frontier of this work and will focus on three areas:

1. The opportunity presented by animal health within the bioeconomy
2. The structural friction that limits innovation by small companies
3. The national interest in strengthening this segment of the innovation ecosystem

The Opportunity: Animal Health as an Underrecognized Engine of Innovation

Animal health is often treated as a secondary market relative to human biotechnology. In practice, it plays a far more strategic role.

It sits at the intersection of:
- food production and food security
- public health
- environmental sustainability
- and biological innovation

At BiomEdit, we are developing a product to address necrotic enteritis in poultry using engineered bacteria that deliver targeted proteins directly in the gastrointestinal tract. This approach improves animal health and production efficiency, but more broadly, it represents a new modality for delivering biologics.

The important point is not the individual product—it is the platform and approach.

Small companies working in animal health are:
- testing new biological delivery systems
- validating mechanisms of action in complex, real-world environments

- and generating data at meaningful scale

In doing so, they are often de-risking technologies that can later be applied in human health.

This creates a natural bridge between agricultural innovation and biomedical innovation—one that is currently underleveraged.

The Friction: Undercapitalization and Ecosystem Gaps

Despite this opportunity, animal health innovation is structurally undercapitalized.

Compared to human biotechnology:
- capital availability is more limited
- investor familiarity is lower
- and pathways to scale and exit are less defined

As a result:
- fewer entrepreneurs choose to build companies in this space
- promising ideas are not pursued
- and technologies are often forced into human applications prematurely

This is not due to lack of scientific opportunity. It is a function of ecosystem design and evolution.

Small companies in this space operate with:
- constrained access to capital
- limited manufacturing and scale-up infrastructure
- and regulatory pathways that, while workable, are not always optimized for novel modalities

The broader support system—capital, infrastructure, and translational partnerships—has not kept pace with the evolution of the science.

The consequence is not simply slower progress. It is missed innovation.

National Interest: Food Security and Biosecurity

There is also a broader lens through which this should be viewed—national interest.

The U.S. protein supply is a foundational component of national stability. It is vulnerable to:
- naturally occurring disease threats such as highly pathogenic avian influenza (HPAI) and African swine fever (ASF)
- and the potential for deliberate disruption through biological means and malicious intent

In this context, animal health innovation is directly tied to:
- resilience of the food system

- continuity of supply
- and national preparedness

Animals often serve as sentinel species and zoonotic reservoirs for bacterial and viral pathogens, with the potential to move between animals and humans and create significant public health challenges.

Small biotechnology companies and in this context – animal health biotechnology companies – can be the source of rapid, novel solutions in these areas.
The question is not whether innovation will occur—it is whether it will occur:
- at sufficient speed
- at sufficient scale
- and within the United States

Strengthening this capability is aligned with broader national priorities around supply chain resilience and biosecurity.

Reframing the Role of Animals in Research and Innovation

Historically, animals have primarily served as models for human biology. Many have been used in research that did not ultimately translate into approved therapies—for humans or for animals.

We now have the opportunity to evolve that paradigm.

By investing in animal health innovation directly, we can:
- develop products that improve animal health and welfare
- generate translational insights that inform human medicine
- and create a more efficient and ethically aligned innovation model

In this framework, animals are not only participants in research—they are recipients of its benefits.

Recognizing this shift would better align scientific progress with both practical outcomes and societal expectations.

Closing

The bioeconomy is not a future concept—it is being built today, often by small companies operating at the edge of what is technically possible. Animal health is a critical, but underrecognized, component of that system. With appropriate attention to capital formation, ecosystem development, and alignment with national priorities, this sector can contribute meaningfully to food system resilience, biosecurity, and the advancement of both animal and human health. Thank you for the opportunity to share these perspectives. I look forward to your questions.

5-Minute Opening Remarks (Final Script)

Senator Young and distinguished guests,

Thank you for the opportunity to testify today.

My name is Aaron Schacht, and I am the CEO of BiomEdit, a biotechnology company based here in Indiana. We develop synthetic biology solutions using engineered microbes to address challenges in animal health, agriculture, and increasingly, areas relevant to human health.

I'd like to focus my remarks on three points:

- the opportunity in animal health,
- the structural friction that limits innovation,
- and why this matters in the context of national interest.

First—the opportunity.

Animal health is often treated as a secondary market relative to human biotechnology. In practice, it plays a much more strategic role.

It sits at the intersection of:

- food security,
- public health,
- environmental sustainability,
- and biological innovation.

At BiomEdit, we are developing a product to address necrotic enteritis in poultry using engineered bacteria that deliver targeted proteins directly in the gastrointestinal tract.

But the important point is not the individual product—it is the platform and approach.

Small companies working in animal health are:

- testing new biological delivery systems,
- validating mechanisms in real-world environments,
- and generating data at meaningful scale.

In doing so, we are often **de-risking technologies that can later be applied in human health**.

That creates a natural bridge between agricultural innovation and biomedical innovation—one that is currently underleveraged.

Second—the friction.

Despite this opportunity, animal health innovation is structurally undercapitalized.

Compared to human biotechnology:

- capital is more limited,
- investor familiarity is lower,
- and pathways to scale are less defined.

The result is straightforward:

- fewer entrepreneurs build in this space,
- fewer ideas are pursued,
- and technologies are often pushed prematurely into human applications.

This is not a science problem—it is an ecosystem problem.

Small companies are doing this work with constrained capital, limited infrastructure, and pathways that are not always optimized for novel approaches.

The consequence is not simply slower progress.
It is **missed innovation**.

Third—why this matters.

The U.S. protein supply is a foundational component of national stability.

It is exposed to:

- disease threats like avian influenza and African swine fever,
- and potentially, deliberate disruption through biological means.

Animals also serve as sentinel species and zoonotic reservoirs, meaning challenges in animal health can quickly become challenges in human health.

In this context, innovation in animal health is directly tied to:

- resilience of the food system,
- continuity of supply,
- and national preparedness.

Small biotechnology companies are often where the most novel solutions originate.

The question is not whether innovation will occur—it is whether it will occur:

- fast enough,
- at scale,
- and within the United States.

Finally—one perspective on the role of animals in research.

Historically, animals have primarily served as models for human biology.

We now have the opportunity to evolve that model.

By investing directly in animal health innovation, we can:

- develop therapies that benefit animals,
- improve animal welfare,
- and generate insights that translate into human medicine.

In that sense, animals are not only participants in research—they can also be **recipients of its benefits**.

In closing—

The bioeconomy is being built today, often by small companies operating at the edge of what is technically possible.

Animal health is a critical, but underrecognized, part of that system.

With the right attention, it can strengthen our food supply, improve resilience, and accelerate progress across both animal and human health.

Thank you. I look forward to your questions.