TITA-2026 and Innovation Pitch

Wednesday Sep 10, 10:34-13:25

Quick recap

The meeting began with an introduction of the Center for Translational Research and its collaboration opportunities. The group explored changing trends in academic research funding, emphasizing the importance of translational research and impact measurement, with speakers discussing funding models and the need for external partnerships. The conversation ended with presentations about innovation initiatives, including a pitch competition and licensing processes at NJIT, along with a company overview of Phase Change Solutions' progress and strategy.

Next steps

- All faculty: Consider how their research can demonstrate societal impact beyond academic publications.
- Faculty: Explore potential partnerships to test and implement their research innovations.
- Researchers: Prepare for milestone-driven funding models that require demonstrated outcomes for continued support.
- Faculty interested in commercializing research: Connect with Mike Van Ter Sluis and Mary Jane Durkin from the NJII Venture Studio.
- Researchers: Consider how their work can address market needs when developing research plans.
- New assistant professors: Learn about the cultural shift toward milestone-driven and outcome-focused research funding.

Summary

Translational Research and Innovation Opportunities

The meeting introduced participants to the Center for Translational Research and discussed opportunities for collaboration and innovation. Attendees, including faculty and students from various departments, shared their research interests and experiences, highlighting areas such as AI, machine learning, environmental engineering, and materials science. Atam Dhawan, the senior Vice Provost for research, emphasized the importance of partnerships and translational research. Mary Jane Durkin and Mike Van Ter Sluis from the New Jersey Innovation Institute (NJII) introduced a $10 million fund to support the commercialization of intellectual property from NJIT and partner universities, encouraging attendees to engage with the Venture Studio for potential startup opportunities.

Evolution of Academic Research Funding

The meeting focused on the changing landscape of academic research funding, emphasizing the shift from traditional grant-based approaches to more milestone-driven and outcome-focused funding models. Participants discussed the importance of demonstrating impact and accountability, with examples from various funding agencies highlighting the need to show tangible benefits and societal applications of research. The discussion also included a historical case study of the development of X-ray computed tomography (CT) to illustrate how academic

discoveries can lead to practical applications, emphasizing the value of translational research and collaboration between academia and industry.

Translational Research and Impact Measurement

The discussion focused on the changing landscape of academic research funding, with emphasis on the need for translational research and impact measurement. The speakers highlighted how federal funding agencies like NSF are increasingly requiring demonstrations of impact and outcomes, shifting away from traditional basic research approaches. They explained that researchers must now present clear value propositions and measurable impacts in their grant proposals, effectively running their labs as small enterprises, and noted that successful demonstration of impact can lead to larger funding opportunities. The discussion concluded with an example of how NJIT's research ecosystem can help build resources and support for academic research.

R&D Funding and Partnership Strategies

The speaker discussed the allocation of R&D funding in the United States, highlighting that while academia receives only 8% of funding as a performer, it funds 18% as a funder. They emphasized the need to shift from a science-driven to a need-driven approach in research, particularly in securing funding from federal agencies which prioritize impact. The speaker stressed that successful translational research requires external partnerships and demonstrated impact, warning that without proper alignment of interests between partners, such collaborations are likely to fail.

TITA Program Overview and Funding

Atam presented an overview of the TITA program, highlighting its role in supporting translational research and innovation partnerships. He emphasized the need to shift from a science-based approach to a need-driven, market-oriented one, citing recent funding trends. Atam outlined various funding opportunities available through TITA, including grants for collaborative research, technology development, and pitch competitions. He also discussed the creation of an entrepreneurial pathway ecosystem and the importance of collaboration in generating innovative ideas. Atam encouraged attendees to participate in TITA workshops and join the national ART portal to connect with industry partners and expand their networks.

TITA Innovation Pitch Competition

The meeting focused on the upcoming innovation pitch competition, where Manish, Brian, and Govi shared their expectations for the TITA proposal and provided feedback on the presentation. Manish emphasized the importance of pivoting and creating new products, especially in challenging fields. The group discussed the possibility of bringing new ideas to the competition, with Manish and Brian expressing their willingness to support and guide the faculty in developing their proposals.

Phase Change Solutions Growth Overview

Govi Rao, CEO of Phase Change Solutions, presented an overview of their company's progress and strategy. The company focuses on developing and licensing phase change materials (PCMs) for various applications including logistics, cold chain, building energy efficiency, and data

centers. They have achieved significant growth, doubling revenue to $20 million this year and reducing SKUs by 80%. Govi explained their licensing model, which includes both downstream products and core technology, and discussed their IP portfolio of 47 issued patents and 100 filings. The company is currently raising $10 million in a Series C Preferred round at a $120 million valuation.