Virginia Tech Board of Visitors Meeting

Information Session

Monday, June 7, 2021
3:45 – 5:30 p.m.

The Inn – Latham Ballroom
Virginia Tech Campus

Open Session

Innovation Campus Update
• Lance Collins, Vice President and Executive Director for the Innovation Campus

Research Overview
• Daniel Sui, Vice President for Research and Innovation

Constituent Reports
• Camellia Pastore, Undergraduate Student Representative to the Board
• Sabrina Sturgeon, Graduate Student Representative to the Board
• Tamarah Smith, Staff Representative to the Board
• Eric Kaufman, Faculty Representative to the Board

Closed Session

Litigation Discussion
• Kay Heidbreder: University Legal Counsel
UPDATE TO BOARD OF VISITORS

Lance Collins, Vice President and Executive Director

June 7, 2021
On May 4th Boeing Corporation announced a $50M donation for the Innovation Campus.
ACCESS AND SUCCESS FOR STUDENTS

Brian Fernando Timana-Gomez
• Applicant taking summer courses to pursue an MEng in Computer Engineering
• Completing a Bachelor of Business Administration (BBIT) at Virginia Tech
• Participated in a research project with the Hume Center for National Security and Technology
• Eligible for scholarship from the Boeing Gift for taking required prerequisite courses

Megan Bull
• Applicant for MEng in Computer Science and Applications
• Completing a BS in Math from Hollins University, one of our partner institutions
• Senior research project focused on bias in AI; will be a data science intern at NASA’s Headquarters in Washington, D.C. this summer
• Eligible for scholarship from the Boeing Gift for MEng studies

Irith Sharma
• Graduating student pursuing MEng in Computer Science and Applications
• Holds a BS in Computer Science & Mechanical Engineering from Virginia Tech
• Completing the Accelerated Undergraduate/Graduate (4+1) program
• Receives financial aid for MEng studies through Virginia Tech Talent Scholarship program

Lt. Shano Ezzell
• Incoming student pursuing an MEng in Computer Engineering
• Holds a BS in Electrical Engineering from the US Coast Guard Academy
• On active duty with the US Coast Guard; intends to serve as a Cyberspace Information Technology Officer
• While at the Academy, was president of the Diversity Peer Educators group

Jordan Gilliard
• Graduating student pursuing an MEng in Computer Science and Applications
• Completed a BS in Geology from the University of Iowa and a MS in Information Technology from Elmhurst University
• Worked as a project lead for the Google Expeditions AR project and at Gastrofix (now Lightspeed)
• Soon to start as a software development engineer at Bloomberg

“The Virginia Tech Innovation Campus will be both a place and a culture that unlocks the power of diverse people and ideas to solve the world’s most pressing problems through technology.”
Other Progress

Faculty  Curriculum  Facilities  Staffing
WHAT ARE WE DOING?
WHERE ARE WE GOING?
HOW ARE WE GOING TO GET THERE?

- Rethinking research’s mission and strategic priorities
- Continuous visioning:
  - What is our national research and innovation identity?
  - What would we like to be known for?
- Revisiting metrics for research assessment and management
• Inspire intellectual, innovative, and creative activities within and across disciplinary boundaries

• Provide outstanding administrative support and services

• Cultivate inclusive cultural changes for research excellence and eminence

• Champion Virginia Tech’s research programs and capabilities from local to global level
EMERGING FRONTIERS, BEYOND BOUNDARIES

INTERNAL FOUNDATIONS
- Expertise
- Organizational infrastructure
- Areas of strategic investment (health sciences, innovation campus, cybersecurity)

EXTERNAL DRIVERS
- Scientific breakthroughs
- Critical emerging technologies
- Federal funding trends
- Emerging industries of the future
Four Frontier Areas

The Health Frontier
Leading ONE HEALTH towards WHOLE HEALTH

The AI Frontier
Harnessing artificial intelligence (AI) for intelligence augmentation (IA)

The Security Frontier
Innovating for secure and resilient communities

The Quantum Frontier
Advancing the quantum leap
THANK YOU FOR LISTENING!

QUESTIONS?
THANK YOU FOR LISTENING!

Backup slides
WHAT IS OUR RESEARCH STRATEGY?

OPPORTUNITIES

• Reinforce the Virginia Tech research brand through targeted marketing and storytelling that reaches external constituents (media, sponsors, donors, and general public)

• Serve as guiding principles for institutional investments

• Further stimulate transdisciplinary collaboration on campus through convergence research and team science

• Enhance experiential learning at both graduate and undergraduate level through innovative curriculum reforms
LEADING ONE HEALTH TO ACHIEVE WHOLE HEALTH

Changing the paradigm from a focus on disease and symptoms to one of whole health, integrating intersections of animal, environment, and human health and building in communities and systems to empower multifaceted well-being.
Building on expertise in AI and data science, systems engineering, neuroscience, human factors, robotics, immersive visualization, and education, among others, to accelerate human-technology partnerships towards seamless augmentation, ethically and sustainably.
INNOVATING FOR SECURE AND RESILIENT COMMUNITIES

Ensuring communities are prepared to face global threats, from climate change to natural disasters to national defense, through advances in preparation, defense, mitigation, and recovery.
ADVANCING THE QUANTUM LEAP

With an unparalleled transdisciplinary focus, accelerating the integration of quantum technologies across society, realizing unprecedented computing and communication capabilities and restructuring our social framework.
RESEARCH DEVELOPMENT SUPPORT: BY FUNDING SOURCE

JANUARY: LARGE CENTERS
- Daniel Crawford, University Distinguished Professor of Chemistry; Director of the Molecular Sciences Software Institute
- Steve Mc Knight, Vice President for Strategic Alliances
- Maren Roman, Associate Professor of Sustainable Biomaterials; Principal Investigator of the NSF Materials Innovation Platform - GlycoMIP
- Jeff Reed, The Willis G. Worcester Professor of Electrical and Computer Engineering; founder of Wireless@VT

FEBRUARY: ENGINEERING RESEARCH CENTERS
- Junhong Chen, former NSF Program Director for Engineering Research Centers

MARCH: FOUNDATIONS
- Charlie Phleger, Vice President for Advancement
- Brandy Salmon, Associate Vice President for Innovation and Partnerships
- Tracy Krauchun, Director of Foundation Relations, Link License Launch
- Mike Friedlander, Executive Director of the Fralin Biomedical Research Institute
- Sylvester Johnson, Professor and Director of the Center for Humanities

APRIL: INDUSTRY AND INNOVATION PARTNERSHIPS
- Andrea Belz, NSF Division Director of Industrial Innovation and Partnerships

MAY: ENGAGING WITH NATIONAL LABORATORIES
- Feng Lin, Professor and Chair of the Department of Physics, College of Science
- Mark Pitt, Associate Vice President for Research Computing and Director of the Interdisciplinary Center for Applied Mathematics
- Terry Herdman, Assistant Professor, Department of Chemistry, College of Science
- Charlie Phleger, Associate Vice President for Advancement

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Terry Herdman, Assistant Professor, Department of Chemistry, College of Science
Charlie Phleger, Associate Vice President for Advancement
THE
FUTURE
OF WORK

UH2984: The Future of Work (Fall 2021)
Wednesdays, 5:30-6:20 p.m. EST
McBryde 216
Dr. Sui
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