Sessions (two full days):

**Day 1**

8:00-8:30 Light snacks and coffee

8:30-8:45 Opening remarks:

8:30-8:35 George J. Christ, Ph.D.
Professor of Biomedical Engineering and Orthopaedic Surgery
Commonwealth Professor of Biomedical Engineering
Co-Director, Center for Advanced Biomanufacturing

8:35-8:40 Jennifer L. West, Ph.D., NAE
Professor of Biomedical Engineering
Saunders Family Professor of Engineering
Dean, School of Engineering and Applied Science

8:40-8:45 Shayn Peirce-Cottler, Ph.D.
Professor and Chair of Biomedical Engineering
Harrison Distinguished Teaching Professor
**8:45-10:15**  
**Session 1: Bioentrepreneur Bootcamp 2.0: Lessons Learned from Commercialization Successes and Failures**  
Michael Francis and Luke Burnett, Co-Chairs

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**8:45-9:00**  
Luke Burnett, Ph.D.  
CSO and CEO, KeraNetics

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**9:00-9:15**  
Alyce Jones, Ph.D.  
Vice President, Global Regulatory and Clinical Affairs at LifeNet Health

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**9:15-9:30**  
Elliot McAllister  
CEO/CTO, Skyphos Industries Inc.

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**9:30-9:45**  
Jed Johnson, Ph.D.  
Co-Founder, CTO, Nanofiber Solutions

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**9:45-10:15**  
Panel discussion  
Rob Gourdie, Ph.D., Panelist  
Professor and Director, Center for Vascular and Heart Research at Virginia Tech Commonwealth Research Commercialization Fund Eminent Scholar

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**10:15-10:30**  
Break

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**10:30-noon**  
**Session 2: What is the Bioeconomy?**  
Michael Orrico and Richard McFarland, Co-Chairs

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**10:30-10:45**  
Mike Orrico  
Managing Director, BioFab Startup Lab

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**10:45-11:00**  
Richard Chylla, Ph.D.  
Executive Director, UVA Licensing and Ventures Group

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**11:00-11:15**  
Richard McFarland, Ph.D., M.D.  
Chief Regulatory Officer, ARMI/BioFabUSA

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**11:15-11:30**  
Scott Hollenbeck, M.D., F.A.C.S.  
Professor and Chair, Department of Plastic and Maxillofacial Surgery Chair, UVA

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**11:30-11:45**  
Leilani Cannon  
Director Business Development, Essent Biologics (Technology Commercialization)

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**11:45-noon**  
Panel discussion

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**Noon-1:00**  
Lunch
1:00-2:00  **Keynote address**  
Arnold Caplan, Ph.D.  
Professor of Biology and Director of the Skeletal Research Center, Case Western Reserve University School of Medicine

2:00-2:15  Break

2:15-3:45  **Session 3: Frontiers in Design of Biomaterials for Organ and Tissue Biomanufacturing**  
Warren Grayson and Gulden Camci-Unal, Co-Chairs

2:15-2:30  Warren Grayson, Ph.D.  
Professor of Biomedical Engineering, JHU  
Director, Laboratory for Craniofacial and Orthopaedic Tissue Engineering

2:30-2:45  Gulden Camci-Unal, Ph.D.  
Associate Professor of Chemical Engineering, Center for Pathogen Research and Training, UMass-Lowell

2:45-3:00  Abby Whittington, Ph.D.  
Associate Professor, Chemical Engineering, Virginia Tech

3:00-3:15  Chris Highley, Ph.D.  
Assistant Professor of Biomedical and Chemical Engineering, University of Virginia

3:15-3:45  Panel discussion

3:45-4:00  Break

4:00-5:30  **Session 4: Clinical Applications of Biomaterials for Organ and Tissue Repair**  
Reggie Stilwell and Mohammad Albanna, Co-Chairs

4:00-4:15  Reginald Stilwell  
Director, AlloSource Innovation Center (AIC)

4:15-4:30  Shyni Varghese, Ph.D.  
Professor of Biomedical Engineering, Mechanical Engineering and Materials Science, and Orthopaedic Surgery, Duke University

4:30-4:45  Mohammad Albanna, Ph.D.  
Founder and CEO, Humanbiologics

4:45-5:00  Jae-Won Shin, Ph.D.  
Associate Professor of Pharmacology and Bioengineering, University of Illinois at Chicago

5:30-  Social
**Day 2**

**8-8:30**  
Light snacks and coffee

**8:30-10**  
***Session 5: Cell Sources for Tissue Engineering and Regenerative Medicine***  
Arnold Caplan and Jeff Brown, Co-Chairs

**8:30-8:45**  
Jeff Brown, Ph.D.  
VP, Research and Development, Essent Biologics

**8:45-9:00**  
Hank Donahue, Ph.D.  
Eminent Scholar and Alice T. and William H. Goodwin, Jr. Endowed Professor and Chair, Department of Biomedical Engineering, Virginia Commonwealth University

**9:00-9:15**  
James Clinton, Ph.D.  
Lead Scientist, ATCC

**9:15-9:30**  
Ross Marklein, Ph.D.  
Assistant Professor, School of Chemical, Materials, and Biomedical Engineering, University of Georgia

**9:30-10:00**  
Panel discussion

**10:00-10:15**  
Break

**10:15-11:45**  
***Session 6: Biofabrication of Tissues and Organs***  
Kimberlee Potter and Vincent Ho, Co-Chairs

**10:15-10:35**  
Vincent Ho, M.D., M.B.A.  
Chair and Professor, Department of Radiology and Radiological Sciences  
Director, 4D Bio3 Center for Biotechnology  
Uniformed Services University  
Director of Research, Department of Radiology  
Walter Reed National Military Medical Center

**10:35-10:55**  
Kimberlee Potter, Ph.D.  
Health Science Officer, Office of Research and Development, Department of Veterans Affairs  
[VHA/DEAN/ORD/BLRD]

**10:55-11:15**  
Rohan Shirwaiker, Ph.D.  
Professor in Industrial and Systems Engineering and Associate Director of the Functional Tissue Engineering Program at the Comparative Medicine Institute at North Carolina State University

**11:15-11:30**  
Malaney Morris, Ph.D.  
Field Specialist, CELLiNK
11:30-12:00  Panel discussion  

**Greta Babakhanova, Ph.D.**  (Panelist)  
Physicist, Biosystems & Biomaterials Division, President of WiSTEM Executive Board, National Institute of Standards and Technology

**Kristin H. Gilchrist, Ph.D.**  
Associate Director of Research, 4D Bio3 Center for Biotechnology  
Uniformed Services University

12:00-1:00  Lunch

1:00-1:15  **Art Lichtenberger**: Overview of UVA IFAB Facility  
Research Professor, Electrical and Computer Engineering  
University of Virginia

1:15-3:00  **Session 7: Developing a Biomanufacturing Workforce**  
Chair: **Shayn Peirce-Cottler**

1:15-1:30  **Spencer Marsh, Ph.D.**  
Chief Scientific Officer  
The Tiny Cargo Company  
spencer@tinycargo.com

1:30-1:45  **Clif Ray, Ph.D.**  
AAAS Fellow, NIST

1:45-2:00  **Jonathan Turner, Ph.D.**  
Applications Scientist, LumaCyte

2:00-2:15  **Evan Buettmann**  
VCU Postdoctoral Fellow in Hank Donahue's research group

2:15-2:30  **Nicholas Chartrain, Ph.D.**  
Research Scientist, 4D Bio3 Center for Biotechnology  
Uniformed Services University

2:30-2:45  TBD  
UVA Undergraduate Student in Chris Highley's research group

2:45-3:00  Panel Q&A with all speakers from Session 7

3:00-3:15  **Closing remarks**