Special Telephone Meeting

University of Connecticut Board of Trustees
Committee for Research, Entrepreneurship and Innovation

Monday, February 15, 2021

Public Call in #: (415) 655-0002 US Toll
Access Code: 629 930 823

(A recording of the meeting will be posted on the Board website
https://boardoftrustees.uconn.edu/ within seven days of the meeting.)

AGENDA

Call to order at 10:00 a.m.

1. Public Participation (limited to agenda items)*
   * If members of the public wish to address the Committee during the Public Participation portion of the meeting, limited to agenda items, you must submit a request in writing 30 minutes prior to the start of the meeting by 9:30 a.m. to the following email address: BoardCommittees@uconn.edu. Please indicate your name, telephone number, and topic on the agenda to be discussed. Per the University By-Laws, the Board may limit public comment. As an alternative, you may also submit your comments via email which will be shared with the Committee.

ACTION ITEM:

2. Approval of the minutes of the Special Meeting of the Research, Entrepreneurship and Innovation Committee Meeting of November 16, 2020.

PRESENTATION/DISCUSSION ITEMS:

3. Opening Remarks – Dr. Philip Rubin
4. Updates - Dr. Radenka Maric, Vice President for Research, Innovation & Entrepreneurship
5. Hiring Plan Update – Dr. Jeffrey Shoulson, Senior Vice Provost for Academic Affairs
6. Update on the APLU Innovation and Economic Prosperity Designation – Dr. David Noble, Director of the Peter J. Werth Institute for Entrepreneurship and Innovation
7. Stamford Startup Studio Launch – Dr. David Noble
8. Discussion around UConn Venture Fund – Dr. Abhijit Banerjee, Associate Vice President for Research, Innovation & Entrepreneurship
9. Venture Funding Continuum – Dr. Abhijit Banerjee
10. Q&A and Closing Remarks
11. Executive Session (as needed)
12. Adjournment
Committee Vice Chair Rubin convened the meeting at 3:30 p.m. by telephone.

No public comment was volunteered on any of the agenda items.

On a motion by Trustee Gandara, seconded by Mr. Vogel, the minutes from the July 23, 2020, special meeting of the REI Committee were approved.

Vice Chair Rubin introduced Dr. Radenka Maric, Vice President for Research, Innovation & Entrepreneurship. Dr. Maric gave an update on research metrics and highlighted achievements at UConn. (Attachment 1)

Vice Chair Rubin introduced Dr. Indrajeet Chaubey, Dean, College of Agriculture, Health and Natural Resources (CAHNR) as the next presenter. Dr. Chaubey gave a presentation on CAHNR’s research, educational and entrepreneurial activities. (Attachment 2)

Vice Chair Rubin introduced Dr. Jit Banerjee, Associate Vice President for Research, Innovation & Entrepreneurship as the next presenter. Dr. Banerjee gave an update on Technology Commercialization Services (TCS) activities, their accomplishments and the results of their needs assessment. He then shared his strategic objectives and plan for 2021 to deliver on some of the objectives proposed in Public Act 19-154. (Attachment 3)

There being no further business, Mr. Vogel motioned, seconded by Trustee Gandara, to adjourn the meeting at 4:25 p.m.

Respectfully Submitted,

Joanna L. Desjardin
Secretary to the Committee
UConn’s Current Growth

Based on NSF Higher Education Research & Development (HERD) Survey data from 2012-2018

- UConn’s growth rate is an average of 0.904% a year, less than 1% (2008-2017 is 1.6%)
- As our dollars have increased our rank has decreased, dropping 19 slots since 2008, from #70 to #89
Self-Analysis

Distinctive Research Strengths

**UConn Strength Areas**
- Genomics
- Materials
- Energy
- Manufacturing
- Cyber
- Health Behavior
- Neuroscience

**Questions to Consider**

1. **What are our personnel-related advantages?**
   - Unique competencies
   - Management expertise
   - Publication and citation track record
   - Funding track record

2. **What are our technological advantages?**
   - Novel technical approach
   - One-of-a-kind instrumentation
   - Access to rare equipment

3. **What are our institutional advantages?**
   - Unique facilities
   - Institutional investment
   - Academic programs
   - Designations

4. **What are our regional advantages?**
   - Community partners
   - Climate and environment
   - Geographic proximity
## UConn Sponsored Program Metrics

*Year to Date Comparison of Proposals & Awards*

<table>
<thead>
<tr>
<th></th>
<th>FY2020 thru December</th>
<th>FY2021 thru December</th>
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</thead>
<tbody>
<tr>
<td><strong>Storrs &amp; Regional Campuses</strong></td>
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<tr>
<td>Proposals</td>
<td>681</td>
<td>694</td>
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<tr>
<td></td>
<td>$313.8M</td>
<td>$405.0M</td>
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<td>Awards</td>
<td>297</td>
<td>312</td>
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<td>$98.7M</td>
<td>$116.3M</td>
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<td><strong>UConn Health</strong></td>
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<tr>
<td>Proposals</td>
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<td>278</td>
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<td></td>
<td>$252.4M</td>
<td>$279.3M</td>
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<tr>
<td>Awards</td>
<td>108</td>
<td>79</td>
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<tr>
<td></td>
<td>$51.8M</td>
<td>$51.3M</td>
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<tr>
<td><strong>Total UConn</strong></td>
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<tr>
<td>Proposals</td>
<td>951</td>
<td>972</td>
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<tr>
<td></td>
<td>$566.3M</td>
<td>$684.2M</td>
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<tr>
<td>Awards</td>
<td>405</td>
<td>391</td>
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<tr>
<td></td>
<td>$150.6M</td>
<td>$167.6M</td>
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</tbody>
</table>
UCONN: Technology Transfer Highlights FY 2020

- **128** US Patent Applications Filed
- **25** US Patents Issued
- **9** Options Executed
- **48** Outgoing Material Transfer Agreements
- **102** Invention Disclosures
- **7** Licenses executed
- **6** Licenses in Negotiation through FY21
- **$901K** Licensing Revenue

**LICENSING EFFORTS**
- Encapsulate
- 3BC
- 3DAT
- Biochrom Pharma
- Therapeutic Bandage Products
- ACW Analytics
- Diant Pharma
- Nami Therapeutics

**LICENCES EXECUTED**
- Adv Trauma Solutions
- CT Biotech
- Pathware
- Movia Robotics
- Proteintech
- VIR Biotech
- Ionis Pharma

**PATENT ISSUED BY SCHOOL**
- Engineering: 60%
- Medicine: 20%
- CLAS: 8%
- Pharmacy: 8%
- Dental Medicine: 4%
UCONN: TIP & Venture Development Highlights FY 2020

- 4 Faculty Startups
- $8.6M Raised by UConn TIP startups
- 6 UConn companies that received SBIR grant funding
- 11 Entrepreneurs-in-Residence
- 43 TIP companies
- 208 Full and part-time employees in TIP Companies
- $462.9M Funds raised by TIP companies

NEW UConn Faculty startups:
- General Biomics
- Sechel Therapeutics Inc
- Diant Pharma
- P3-EX
Funding finalized from CT Next in August 2020
January 26 2021 “TIP Stamford is Open for Business”
Physical space has been fully designed and equipped
5 startups are currently at Stamford TIP
Additional startups are being considered
Recruitment of 2 FTE, and 1 EIR completed
TIP Stamford has already hosted a number of virtual events
Stamford community fully engaged
**UCONN: 2019-2020 Venture Capital Engagements**

### VCs from CT, NY, MA
- Elm Street Ventures
- Canaan Partners
- Fairview Capital
- (AIF)
- Launch Capital
- Scheer & Co
- VC23
- Landmark Angels
- Lux Capital
- Polaris
- BI Venture Fund
- 406 Ventures
- SkyLight
- EdTEch Fund
- Pillar VC
- Angel Investors Forum
- ReThink Education Fund
- PXV+Xontongeny Fund
- Helicase Venture
- Novo Nordisk
- MP Healthcare
- EVX Ventures
- MSQ Ventures
- Agent Capital
- BioVentures Investors
- Left Lane Capital
- SteelSky Ventures
- Connecticut Innovation
- Alchemy Fund
- Flare Capital
- Harlen Capital

### VCs from other states
- River West Venture Partners
- Osage University Partners
- Remiges Venture
- Cincy Tech
- Santen Ventures
- MRL Ventures
- NEA
- Lincoln Park Capital
- DHVC
- Global Health Funds
- GRS Ventures
- Button Capital
- BioHealth Capital
- True Venture
- Loup Ventures
- Refactor Capital
- Accanto Partners
- Micro Ventures
- Bling Capital
- NFX Partners
- Arch Venture
- Lux Capital

### VCs outside US
- BI Venture Fund
- Hongjing Capital
- Photon Venture
- INKEF Capital BV
- Panacea Venture
- Laurel Venture Capital
- EVX Ventures
- NS Investment Co, LTD
- KaiTai Capital
- Bridge Valley Ventures

*List includes all VCs introduced to and pitched by UConn Startups. List does not include Investment Banks, Capital Advisory Firms, Individual Investors*
UCONN: Startups with VC Funding 2020

- **Bastion**
  - WERTH FAMILY FUND: $2.2M INVESTMENT
  - UCONN INNOVATION FUND: $100K INVESTMENT

- **Savkar Inc.**
  - UCONN INNOVATION FUND: $100K INVESTMENT
University of Connecticut

UConn Investment Fund: Driving Economic Growth for Connecticut

Board of Trustees REI Committee Presentation
February 15, 2021

Dr. Abhijit Banerjee
Associate Vice President for Research, Innovation and Entrepreneurship
What we know about UConn’s entrepreneurial commitments

✅ Commitments under Public Act 19-154, require UConn to undertake number of entrepreneurial initiatives

✅ Three goals set by President Katsouleas for UConn -
  - Doubling of research
  - Transformational education
  - Entrepreneurial engagement impacting economic development
What is the current scenario

De-Risk Technology
Help Faculty Start Companies
Phase 0 Grant for SBIR/STTR
UConn Investment Fund

SPARK Funding
SPARK Follow-on Funding

Gap in Technology Maturation
Gap in SBIR/STTR Support
Gap Crossing “Valley of Death”
Gap in “Series A” Funding
Goal: Provide financial resources for UConn faculty and student innovators

Objective 1: Seed Investment Funding

Objective 2: Proof of Concept Grant Fund

Objective 3: Angel Network expansion and engagement

Objective 4: Experimental learning to build talent and startup financial capacity
What we are hoping to discuss today

✓ Need for this fund at UConn – consensus
✓ What else we need to make the fund a success
✓ Priority and its impact on President Katsouleas’ s goals
✓ Members of BOT/REI who would be willing to help with planning and staging
✓ Timeline for the plan and presentation to BOT/REI committee
What we are not discussing today

- Structure and management of the fund
- Capital raise and fund size
- Investment thesis
- Who would help us raise the capital and how
- Internal and external champions
What are some university investment fund models

**Purdue University**
- Multiple Funds
- $24+M
- Sources: Research/Licensing, University
- Invests in: Mainly University IP
- Highest number of new startups among land-grant Universities

**University of Virginia**
- $10M
- Source: University + UVA Health
- Invests: Only in UVA startups
- 10 investments made
- Raising the 2nd fund

**UMASS**
- Amherst Campus
- Maroon Venture Fund
- $5.9M
- Source: Mostly alumni, small piece from university
- Seed Investment
- Invests in University IP and Alumni Startups
What are UConn’s gaps in entrepreneurial ecosystem

✓ Lack of direct investments that can move the needle

✓ Lack of UConn companies that are able to receive Angel/ VC funding

✓ Lower success rate with SBIR/STTR funding

✓ Lack of motivated and engaged faculty to be entrepreneurial

✓ Lack of investment fund at UConn that can help qualified companies access the “First Check”
What can be done

✓ **More shots on goal** – increase SPARK funding, with follow-on funding that have path to commercialization

✓ **De-Risk Technology** - de-risking of technology to allow maturation for better commercialization

✓ **Showcase** - Regularly showcase de-risked technologies to investors and companies

✓ **Motivate** faculty to engage in startup creation – How can we help?

✓ **Create “Phase 0 Grant”** making UConn startups successful in getting SBIR/STTR

✓ **Create UConn Investment Fund** - support UConn startups
## What are our proposals

<table>
<thead>
<tr>
<th>Technology De-Risking Fund</th>
<th>Startup Formation Fund</th>
<th>SBIR/STTR Phase 0 Fund</th>
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<tbody>
<tr>
<td><strong>$500,000/year</strong>&lt;br&gt;<strong>Rational:</strong> De-risking and maturation of technology</td>
<td></td>
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<tr>
<td>✓ Funding from $10K to $100K</td>
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<tr>
<td>✓ Clear deliverables</td>
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<tr>
<td>✓ Go/No-Go decision</td>
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<tr>
<td>✓ No Follow-On funding</td>
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<tr>
<td>✓ No funding to support students or fellows</td>
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<td>✓ Completed within 12 month period</td>
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<td><strong>Outcome:</strong></td>
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<tr>
<td>✓ Better licensing opportunity</td>
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<tr>
<td>✓ Better startup prospect</td>
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<tr>
<td>✓ Better chance for Angel investment</td>
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<td><strong>$80,000/year</strong>&lt;br&gt;<strong>Rational:</strong> Support startup formation</td>
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<tr>
<td>✓ $10K matching fund 2:1 ratio</td>
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<tr>
<td>✓ UConn conditions apply</td>
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<tr>
<td>✓ To pay for legal fees, registration costs, rent, attend workshops</td>
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<tr>
<td>✓ Registered company</td>
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<td></td>
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<tr>
<td><strong>Outcome:</strong></td>
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<td></td>
</tr>
<tr>
<td>✓ Encourages faculty for doing startup</td>
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<tr>
<td>✓ Takes away the financial pressure</td>
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<tr>
<td>✓ Faculty are more informed by attending workshops</td>
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<tr>
<td>✓ Higher chance of success</td>
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<tr>
<td><strong>$120,000/year</strong>&lt;br&gt;<strong>Rational:</strong> UConn startup competitive in getting SBIR/STTR funding</td>
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<tr>
<td>✓ UConn startup eligible to apply for up to $12K (Phase I &amp; II combined)</td>
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<tr>
<td>✓ For professional SBIR/STTR grant writers</td>
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<tr>
<td>✓ Registered company</td>
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<tr>
<td>✓ UConn conditions apply</td>
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<tr>
<td><strong>Outcome:</strong></td>
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<tr>
<td>✓ Takes away the pressure of writing a competitive SBIR/STTR application</td>
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<tr>
<td>✓ Increases chance of success</td>
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<tr>
<td>✓ Higher chances of receiving VC funding</td>
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</table>
What are projected costs and outcomes

<table>
<thead>
<tr>
<th>Program</th>
<th>Engagement</th>
<th>Investment/year</th>
<th>Outcomes</th>
</tr>
</thead>
</table>
| Technology De-Risking Fund           | 5-10 funding at $50K - $100K            | $500,000        | • Go/No-Go decision  
• Increase in number of startup and licensing opportunities because of direct investments |
| Startup Formation Fund               | $10K/startup; expected startup between 5-8/year | $80,000        | • Increase in number of quality startups  
• Faculty more comfortable taking risks in starting companies |
| SBIR/STTR Phase 0 Fund               | $12K/company for SBIR/STTR Phase I and/or II | $120,000        | • Increase in number of SBIR/STTR grants  
• Increase in more startups having un-diluted $$ to continue with research |

Projected Investment/Year: $700,000
THANK YOU

abhijit.banerjee@uconn.edu

research.uconn.edu