AGENDA
Board of Trustees
ACADEMIC AFFAIRS COMMITTEE
Wednesday, December 9, 2020
8:30 a.m.

Meeting held by Telephone

Public Call-In Number:
(415) 655-0002 US Toll
Access Code: 120 750 7625

Public Access Link:
http://ait.uconn.edu/bot

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

Call to order at 8:30 a.m.

1. Public Participation *

* If members of the public wish to address the Committee during the Public Participation portion of the meeting, you must submit a request in writing 30 minutes prior to the start of the meeting (by 8:00 a.m.) to the following email address: BoardCommittees@uconn.edu. Please indicate your name, telephone number, and topic 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 Board.

COMMITTEE ATTACHMENT

1) Minutes of the Academic Affairs Committee Meeting of October 28, 2020, as circulated

ACTION ITEMS:

2) Tenure at Hire
3) Designation of Emeritus Status
4) Sabbatical Leave Recommendations
5) Appointment of Mark Urban, PhD, as the Arden Chair in the Department of Ecology and Evolutionary Biology, College of Liberal Arts and Sciences
6) Master of Science in Regenerative Engineering
7) Additional Program Location in Storrs for the Graduate Certificate in Leadership and Public Management
INFORMATIONAL ITEMS:

8) Academic Program Inventory 8

9) Centers and Institutes 9

10) Early College Experience 10

PRESENTATIONS:

11) Suzanne A. Onorato, PhD, Executive Director, Student Health and Wellness: Surveillance Testing Strategy
Comprehensive Monitoring of COVID on Campus

Board of Trustees: Academic Affairs

Presented by:
Suzanne Onorato, Student Health and Wellness (SHaW)
Rachel O’Neill, Institute for System Genomics (ISG)

Dec 9, 2020
Surveillance Testing Workgroup

Student Health and Wellness (SHaW)
- Ben Christensen, Project Manager, SHaW
- Ellyssa Eror, Medical Director, SHaW
- Suzanne Onorato, Executive Director, SHaW

Institute for Systems Genomics (ISG)
- Rachel O’Neill, Director, Institute for Systems Genomics (ISG)

Center for Open Research Resources and Equipment (COR²E)
- Kendra Maas, Facility Scientist, Microbial Analysis, Resources & Services (MARS)
- Joey O’Shea, Lead Software Developer, COR²E
- Dan Schwartz, Director, COR²E

Center for Land Use Education and Research (CLEAR)
- Emily Wilson, Geospatial Educator, CLEAR, Extension
- Qian Lei, Research Technician, CLEAR, Extension

Information Technology Services (ITS)
- Jessica Hethcote, Team Lead, Applications & Technology Solutions
Workgroup Partners: Expanding

Digital Experience Group (Dx GROUP)
• Joel Salisbury, Co-Director
• Mike Vertefeuille, Co-Director

Professional Science Masters Health Care Genetics
• Judy D. Brown, Director

UConn Athletics
• Deena Casiero
• Robert Howard, Jr.

Facilities
• Mike Jednak
• Tim Grady
• Stanley Nolan
• Katie Milardo

ResLife
• Amy Crim
• Pamela Schipani

Tech Team
• Chris Grant
• Lisa Nigro
• Bret Resile
• Gabe Salles
• Tannar Trosell
• Volunteers (PharmD, HCG, ISG)
Surveillance Testing Strategy
NATIONAL CONTEXT - 2020 TESTING TIMELINE

**March 8** - A total of 1,707 tests were provided under a centralized CDC.

**April 26** - HHS reported that the U.S. did not have an adequate level of testing capacity to monitor & contain outbreaks.

**May 15** - UConn Surveillance Testing Strategy Group forms.

**May 18** - HHS to deliver $11 billion in new funding to support COVID testing.

**August 17** – CDC & HHS initiate the National Wastewater Surveillance System to understand COVID-19 spread in a community.

**July 6** – NPR reports federal health officials are hoping to stretch the limited testing supplies by supporting pooled sample testing.

**July 27** - The COVID Tracking Project reports U.S. labs were running approx. 800,000 diagnostic tests daily, but needed 6-10 million tests daily.

**October 8** – Dr. Deborah Birx of the White House Coronavirus Task Force warned of a surge and that testing STILL REMAINS a national problem.

**December 1** – Government Accountability Office reports:
- In the past 30 days, 1/3 of states reported shortages of rapid tests, reagents, and supplies.
- 1/2 of states are worried about running out of tests and supplies before the end of the year.
# Overall UConn Fall Student Testing

<table>
<thead>
<tr>
<th>Reentry Testing</th>
<th>Primary Vendor</th>
<th># of Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storrs Residential Student Reentry Testing</td>
<td>Broad Institute</td>
<td>5,079</td>
</tr>
<tr>
<td>Stamford Residential Student Reentry Testing</td>
<td>Hartford Healthcare (HHC)</td>
<td>235</td>
</tr>
<tr>
<td>Commuter Students with In-Person Classes (All Campuses; GAs)</td>
<td>Vault Medical</td>
<td>7,954</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clinical Surveillance, Symptomatic &amp; Exit Testing</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Storrs 10% Surveillance &amp; Close Contact Testing</td>
<td>Broad Institute/SHaW POC*</td>
</tr>
<tr>
<td>Stamford 10% Surveillance &amp; Close Contact Testing</td>
<td>HHC/Vault Medical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Surveillance Sampling</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate Sampling – Wastewater Sampling</td>
<td>MARS</td>
</tr>
<tr>
<td>Pooled Sample Testing – Saliva</td>
<td>ISG/MARS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Clinical Testing Volume</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Total Population &amp; Clinical Testing Volume</td>
<td>43,152</td>
</tr>
</tbody>
</table>

* Wastewater test site samples are estimates based on # of pump site locations
Surveillance and Containment Strategy

THE CHALLENGE

Implement a comprehensive approach to monitor the student population for:

- Early identification of the virus
- Timely test results
- Rapid intervention/containment

RESPONSE:

To create a diversified, multi-tiered approach to include:

1. Population-level monitoring
2. Efficient pooled sampling
3. Individual level surveillance testing
4. Symptomatic testing with rapid results
5. Timely contact tracing
6. Isolation and quarantine strategies
7. Behavioral change
UConn Surveillance Testing Strategy
Diagnostic Testing, Quarantine & Isolation

- 10% Weekly Randomized Surveillance Testing
- Targeted Surveillance Testing
- Diagnostic Testing of Individuals from Positive Pooled Samples
- Diagnostic Testing of All Symptomatic Students
- Isolation & Quarantine Protocols

Dr. Ellyssa Eron
Point of Care Testing
Positive Test
Negative Test
Isolation and Contact Tracing

Comprehensive Campus COVID Plan
Point of Care/PCR Testing

GIS Mapping
Genomics and Microbial Analyses
Student Health and Wellness

COR²E
Institute for Systems Genomics
Center for Genome Innovation

UCONN NATION I PROMISE

UCONN
Wastewater Testing

HRSD Virginia
Raul Gonzalez
*Wastewater>> a ~7 day leading indicator*

Comprehensive Campus COVID Plan

Student Health and Wellness
GIS Mapping
Genomics and Microbial Analyses

New Clinical Cases by Date

Trend lines created using lowess smoothing function
UConn Surveillance Testing Strategy
Wastewater Testing

Testing strategy:
- Daily testing at 16 locations across campus
- Water Pollution Control Facility
- Select lift stations and manholes

Sampling challenges:
- Viral load in feces
- Capture actionable samples
- Isolate sections of campus

Dr. Kendra Maas
UConn Surveillance Testing Strategy
Wastewater Testing

Concentrate Virus
Nanoparticle Technology

Extract RNA

Quantify Viral Load
qRT-PCR
Normalize by fecal indicator
The University of Arizona says it caught a dorm’s covid-19 outbreak before it started. Its secret weapon: Poop.

Researchers at Hope College have developed a testing strategy that allows for broad surveillance of virus levels in the campus population.
WASTEWATER TESTING

Comprehensive Campus COVID Plan

Student Health and Wellness
GIS Mapping
Genomics and Microbial Analyses

Point of Care/PCR Testing
Positive Test
Negative Test
Isolation and Contact Tracing
Positive Test

Negative Test

Comprehensive Campus COVID Plan

GIS Mapping

Student Health and Wellness

Genomics and Microbial Analyses

POOLED TESTING

WASTEWATER TESTING

Point of Care/PCR Testing

Isolation and Contact Tracing

UCONN
UConn Surveillance Testing Strategy
Pooled Sample Screening

100 people

100 clinical tests
UConn Surveillance Testing Strategy
Pooled Sample Screening

100 people

100 clinical tests

10 pools

10 clinical tests

90 reserved
UConn Surveillance Testing Strategy
Pooled Sample Screening

100 people

100 clinical tests

10 pools

10 clinical tests

>9,000 tests reserved

10,000

90 reserved
UConn Surveillance Testing Strategy
Pooled Sample Screening

• Cost effective
  • Allows for more people to be screened and more often
  • Saves clinical testing supplies for symptomatic and known cases
WASTEWATER TESTING – FALL 2020

POOLED TESTING

Dashboard Reporting

Point of Care/PCR Testing

Contacted by SHaW

Positive Pool

Negative Pool

Positive Test

Isolation and Contact Tracing

Negative Test

TARGETED SURVEILLANCE SCREENING
Positive Pool

Negative Pool

Dashboard Reporting

Contacted by SHaW

Point of Care/PCR Testing

Positive Test

Isolation and Contact Tracing

Negative Test

POOLED TESTING

WASTEWATER TESTING

TARGETED SURVEILLANCE SCREENING

SPRING 2021

SCREENING
UConn Surveillance Testing Strategy

OHSU study will screen wastewater, test volunteers for coronavirus

If Portland study is successful, it could open opportunities for combined wastewater and saliva testing efforts in other communities

By Eric Robinson  November 18, 2020  Portland, Oregon

From campus, a lesson in controlling the virus

Massachusetts colleges have been the rare success in combating the spread of coronavirus. The state could learn from their extensive testing plans.

By Deirdre Fernandes  Globe Staff  Updated November 28, 2020, 3:39 p.m.

TRACE-OSU to support health and safety with in-person, wastewater SARS-CoV-2 testing

September 23, 2020

CORVALLIS, Ore. — Oregon State University will extend its ongoing TRACE-COVID-19 project to support safer and healthier environments for its students, faculty and staff by providing weekly prevalence testing during fall term on OSU’s campuses in Corvallis and Bend. Prevalence testing also will occur at the Hatfield Marine Science Center in Newport.

TRACE-OSU will launch Sept. 28 and will include weekly random prevalence testing of approximately 1,000 OSU community members. Wastewater sampling will take place at Oregon State’s campuses in Corvallis and Bend and at HMSC. OSU researchers also will continue wastewater testing in the Corvallis, Bend and Newport communities twice a week.
UConn Surveillance Testing Strategy
Future Expansion and Next Steps

1. Expand pooled sampling (75,000 target)
2. Implement new methods for wastewater screening
   • Not solely pump dependent
   • Obtain measurements closer to the location source
3. Add flu virus detection into wastewater surveillance
4. SARS-COV2 sequencing
5. Provide a dashboard for surveillance findings
6. Model cluster analyses
7. Continue to research innovative approaches for expected testing shortages
UConn Research in Action:
COVID on Campus

Questions and Discussion