AGENDA
FACULTY SENATE
UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

February 12, 2019
4:30 – 5:30 p.m.
Location: Anschutz Medical Campus
Academic Office 1 Building, E. Chester Ridgway Boardroom (7th Floor)

I. Welcome – Faculty Senate President David Raben

II. Approval of Minutes from January 8, 2019, meeting

III. Dean’s Comments
   - Status of searches and affiliations

IV. Presentations and Discussion Items
   1. CU Presidential Search Update
      Laura Borgelt, Professor and Associate Dean of Administration and Operations
      Departments of Clinical Pharmacy and Family Medicine
      Skaggs School of Pharmacy and Pharmaceutical Sciences

   2. CU Innovations Update
      Kimberly Muller, Managing Director for CU Innovations, Chancellor’s Office
      University of Colorado Anschutz Medical Campus

Executive Committee and Faculty Senate minutes are available on the web at:
http://medschool.ucdenver.edu/faculty at the Executive Committee and Faculty Senate links.

Please contact Cheryl Welch at 303-724-5356 or Cheryl.welch@ucdenver.edu if you have any questions.

Meeting Schedule for 2018/2019:
February 12, 2019
March 12, 2019
April 9, 2019
May 14, 2019
June 11, 2019
Who Is CU Innovations?

Our mission is to bring together industry partners, entrepreneurs, and investors to help CU researchers solve important problems and improve the quality of life worldwide.

We strive to enable scientific research that could benefit society, while also generating a sustainable revenue stream for research.
Our role is to nurture disruptive innovations into clinical and commercial reality through supporting:

- Campus Inventors
- Clinical Validation
- Industry Partnerships
CU Innovations Leadership

STEVEN VANNURDEN
Executive Director of Biotechnology at the University of Colorado

Past Experience:
MAYO CLINIC

KIMBERLY MULLER
Managing Director of CU Innovations at the University of Colorado

Past Experience:
Yale UNIVERSITY
Colorado’s Healthcare Innovation Hub on the Anschutz Medical Campus

1. Fund Opportunities
2. Develop Business Plans
3. Entrepreneur Network
4. Advisors and Mentors
5. Development Partners
6. Industry Partnerships

Your One Stop Shop For Innovation
INNOVATION Ecosystem

- Launch
- Community Resources
- Licensing & Startups
- Clinical Validation
- Product Development
- Translational Funding
- Educational Opportunities
Ideas: Where They Come From

**Internal**

Over 200 invention disclosures submitted across 40 departments and divisions

**External**

Over 280 companies engaged for partnership & co-development
Over 400 Attendees for CUI Education Programs

Women Leaders in Innovation Series

LIASON PROGRAM

EDUCATIONAL OPPORTUNITIES
Education Initiatives Focused on 3 Areas of Innovations

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SPARK Colorado: Accelerator Program

SPARK

Shifting academic discovery research into product development through:

Funding  Mentorship  Training
SPARK Program at AMC

Benefits to Participants

1. Mentorship
   a. Expert Advisors
   b. Product & Business Dev

2. Education
   a. Weekly Seminars
   b. Commercialization Strategies

3. Advising
   a. Access to Core Facilities
   b. Industry Partnerships

4. Funding
   a. $50k/year - 2 years
   b. Goal = de-risk early stage projects

- 2 year accelerator program
- Up to $100k per tech
- Top Industry Mentors

Discovery

Clinic
SPARK 2018 INNOVATORS

SPARK Colorado aims to bridge the gap between the scientists bench and the patients bedside by providing funding, industry mentorship, and a curriculum tailored to the needs of participating faculty and researchers. It seeks to help faculty navigate the "valley of death," a period during which a majority of promising projects fail to survive.

EVALINA BURGER, MD
Professor | Team Project: Novel Cages Accommodating Individual Endplate Architecture.

MELANIE JOY, PhD
Associate Professor | Team Project: Novel Medical Device for Kidney Disease Indication.

JEFF OLSON, MD
Associate Professor | Team Project: Intracorneal Devices to Potentiate Retinal Stem Cell Transplantation in Macular Degeneration.

MAX MITCHELL, MD
Professor | Team Project: Apical Cell Implant Tool (ACIT) for Left Ventricular Assist Device.

VALERIA CANTO-SOLER, PhD
Associate Professor | Team Project: Stem Cell Derived 3D Retinal Transplant for Dry Age-Related Macular Degeneration.

MICHAEL GLODE, MD
Professor | Team Project: A Fusion-toxin for the Treatment of Bladder Cancer.

RICHARD JOHNSON, MD
Professor | Team Project: Targeting Sugar and Alcohol: Craving and Liver Disease.

JIM LAMBERT, PhD
Associate Research Professor | Team Project: A Breakthrough Therapy for Triple-Negative Breast Cancer.

MARK PETRASH, PhD
Professor | Team Project: Autologous CD117+/Progenitor Cell Therapy for Solid Organ Transplantation.

NICHOLAS WALTER, MD
Assistant Professor | Team Project: HM4kHeart: A Saliva-Based Molecular Test for Head and Neck Cancer.

MICHAEL CHAPMAN, MD
Resident | Team Project: tPA-Challenged Vasodilatory Hemostatic Assay for Early Identification of Fibrinolytic Coagulopathy in Trauma.

ERNEST MOORE, PhD
Professor | Team Project: Immunostatic.
Advisors and Entrepreneurs In Residence

Steve Lindseth
Serial healthcare entrepreneur and investor

Collectively generated over $15B in commercial value
Represent over 100 years of commercialization expertise

Stanley Lapidus
Serial healthcare entrepreneur and investor

Wayne Guerra
Physician entrepreneur with multiple exits, CMO iTriage

Newly Added

Richard Foster
Executive in Residence, Yale Emeritus Director of McKinsey & Company

David Lacey
Former Senior Vice President, Discover Research at Amgen Biopharmaceutical Consultant

EDUCATIONAL OPPORTUNITIES
TRANSLATIONAL FUNDING

COMMUNITY RESOURCES

LICENSES & STARTUPS

CLINICAL VALIDATION

PRODUCT DEVELOPMENT

TRANSLATIONAL FUNDING

EDUCATIONAL OPPORTUNITIES

LAUNCH
Commercialization Grant Funding Programs

SPARK
Gates Center for Regenerative Medicine
UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

CDIFUND
CHANCELLOR’S DISCOVERY INNOVATION FUND
CU ANSCHUTZ MEDICAL CAMPUS

HEALTHCARE INVESTMENT FUND

TRANSLATIONAL FUNDING
CU Innovations Hub
Three Verticals of Innovation Resource Hub

- Developing strategic partnerships with industry facilitating the development of biomedical innovation
- Provide additional access to mentors and resources initiating and fueling startup companies
- Effectively stewards CU Innovation funds with internal and external collaborations.

Funding Programs
- SPARK
- CDIF
- Gates Venture Fund

Innovation Resources

Venture Services

External Partners

Technology Development

PRODUCT DEVELOPMENT
**Corporate Formation**
Assistance in legal, equity planning, and banking questions for establishing a startup company.

**Patent & FTO Analysis**
Access to intellectual property law firms and mentors for: FTO analysis, patentability assessment, patent portfolio strategy development.

**Strategy Development**
Provide advisors and business fellows for developing business plans for successful startup launch.

**Clinical Trials Regulatory & Reimbursement**
Provide access to regulatory consultant assisting in the successful launch into the clinic.

**Funding & Investors**
Providing SBIR/STTR grant writing workshops and specialty consulting. Facilitating external partnerships by engaging industry and investors.

**Industry Partners**
Providing additional access point for industry partnerships opportunities.

**Accelerators**
Access to accelerator programs and incubator spaces.

**Technology Development**
Create portal to identify internal and external partners to develop your technology via university core laboratories and external partners.
CLINICAL VALIDATION

COMMUNITY RESOURCES

LICENSED & STARTUPS

CLINICAL VALIDATION

PRODUCT DEVELOPMENT

TRANSLATIONAL FUNDING

EDUCATIONAL OPPORTUNITIES
Meanwhile, persistent inefficiencies and rising costs slowly bankrupt the country.
Healthcare is entering a new, promising era

- **1870s**: Germ Theory of Disease, Public Health Initiatives
- **1920s**: Penicillin Discovery, Disease Treatment
- **1970s**: Randomized Controlled Trials, Evidence Based Medicine
- **2020s**: Big Data Analytics, Systemization of Care, Connected Patient
“Patients and caregivers now expect rapid and personalized communication, to be an active participant in their care, and to be able to manage and access this information and their care team anytime and anywhere. Patients are now consumers, and they have high demands. Providers need to include patients and caregivers as part of the care team and engage with them through communication channels they use in their daily lives.” Ted Quinn
CARE Innovation Center Recognized as a Top Innovation Program, 2017

Top 20 Children’s Hospitals in Innovation and Technology by Parents, 2018

BECKER’S __________________________
HOSPITAL REVIEW

Companies applied for access to our innovation centers at AMC since 2017
National Deal Flow

Number of clinical validation and co-development opportunities with innovation centers at the hospitals

500+

DRIVEN BY EXTERNAL PARTNERSHIPS

uc health

Children’s Hospital Colorado

RXRevU
Medtep
AgileMD
LeanTaas
fitbit
caremerge
TUTE
genomics
CareLoop
cohero
savvysherpa
FORCE
therapeutics
appliedVR
Microsoft
Code Medica

CLINICAL VALIDATION
Partnering with Global Networks
The total follow-on funding raised by these companies amounts to over $6.2B
Health Systems

Control Access to Point of Care

Technology
Need providers to test, improve, validate, and adopt/buy solutions

Payers
Need providers to deliver care and explore new cost reduction models

Health Systems
Control over providers, patients, and clinical data

Improved Outcomes
uchealth

Children’s Hospital Colorado