



OPEN SESSION

FOR INFORMATION ONLY

(No formal action is requested at this time)

1. Chair Remarks
Lowry Caudill, UNC Board of Trustees
2. Funding Startups
 - [Grants and Awards](#)
Andy Kant, Assistant Director of Carolina KickStart, & Program Manager for 4D
Randy Myer, Professor of the Practice of Strategy and Entrepreneurship, KFBS & Chairman of the Board of Directors for NC IDEA
Ted Zoller, T.W. Lewis Clinical Associate Professor of Strategy and Entrepreneurship & Director of the Center for Entrepreneurial Studies, KFBS
 - [Small Business Innovation Research & Small Business Technology Transfer Programs](#)
Tim Martin, Assistant Director of Carolina KickStart
 - [Carolina Research Venture Fund](#)
Sallie Shuping-Russell, Chair, & former UNC Trustee
 - [Proposed Angel Network](#)
Don Rose, Director of Carolina KickStart
Bryan McGann, Entrepreneur-in-Residence, UNC-Chapel Hill
3. [TEDxUNC 2016 – “Bodies: Being Human”](#)
Teerth Brahmbhatt, UNC Class of 2016
Ashita Gona, UNC Class of 2016
Olivia Nicolaus, UNC Class of 2016
4. Discussion
Lowry Caudill, UNC Board of Trustees

*Some of the business to be conducted is authorized by the N.C. Open Meetings Law to be conducted in closed session.

COMMITTEE MEMBERS

W. Lowry Caudill, Chair
Julia Sprunt Grumbles, Vice Chair
Jefferson W. Brown
Haywood D. Cochrane, Jr.
Donald Williams Curtis
Hari H. Nath

Administrative Liaison:

Judith Cone, Vice Chancellor for Commercialization and Economic Development



UNC

THE NORTH CAROLINA
TRANSLATIONAL & CLINICAL
SCIENCES INSTITUTE

4D Strategic Initiative

Title



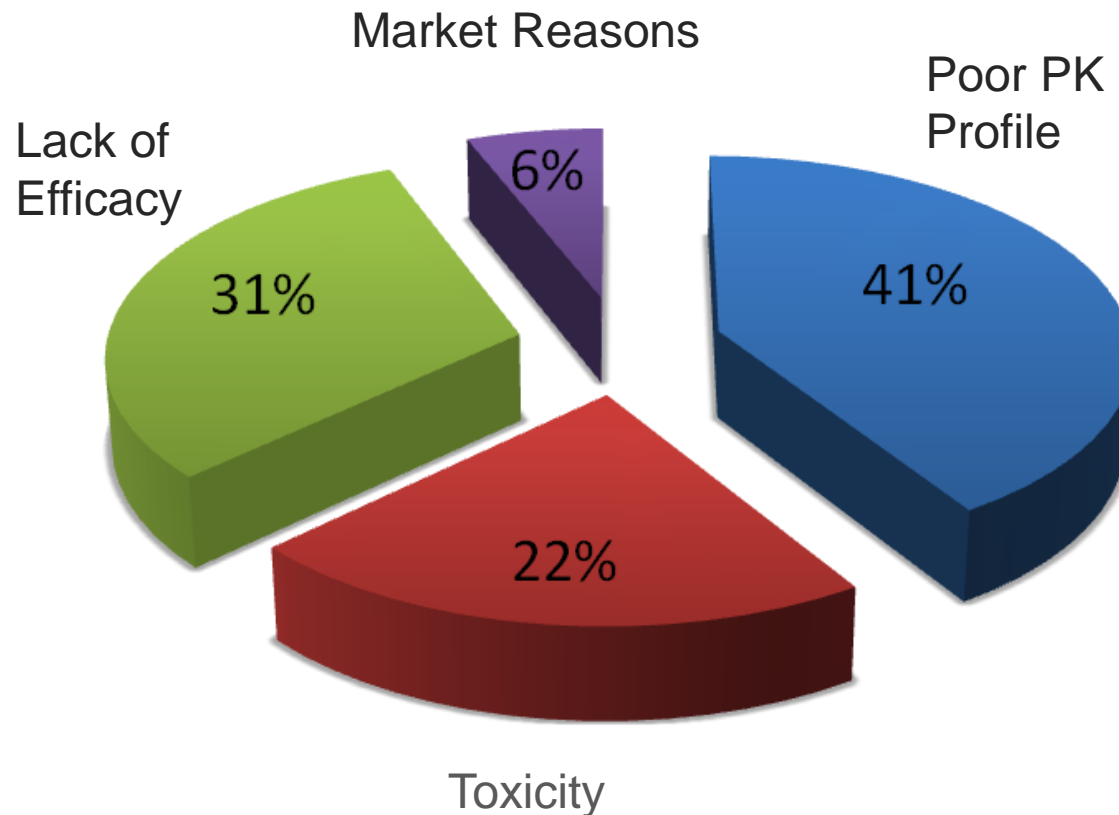
The central purpose of the CTSA Strategic Initiatives is to harness the existing strengths, energy and expertise of **UNC**, **RTI** and **NC A&T** and transform them into efficient and effective platforms to streamline investigative strategies in translational medicine.



Drugs, Devices and Diagnostic Development

focused on
development &
commercialization

94% of Drugs Fail for Technical Reasons



Research

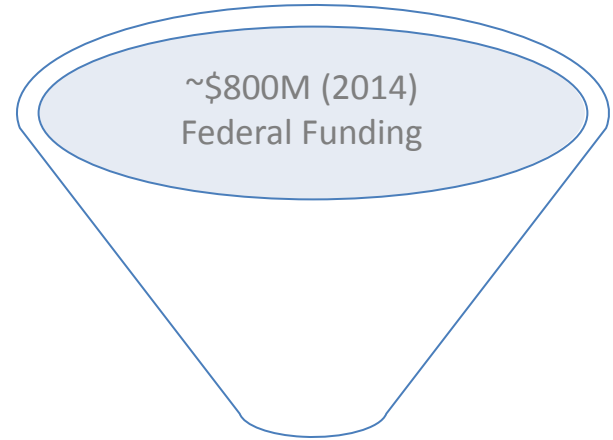
Technology
Development

Commercialization

Extramural Funding

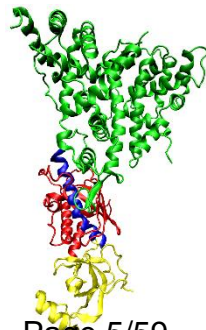
- NIH
- NSF
- DoD
- Industry
- Foundations

Discovery and Exploratory research



Deshmukh

DICER
DNA damage repair

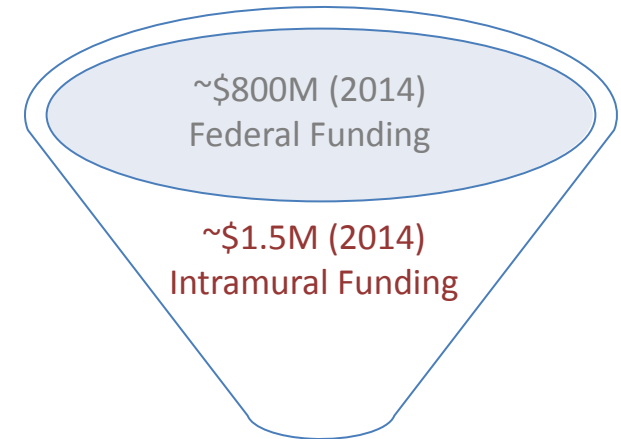


Potential cancer target?
Mechanism unclear

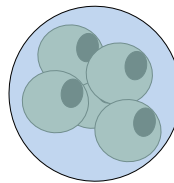
Intramural Funding

- 4D Strategic Initiative / RTI International
- OCED Technology Development Grants
- Eshelman Institute for Innovation
- Kenan Institute of Private Enterprise
- Gillings Innovation Labs

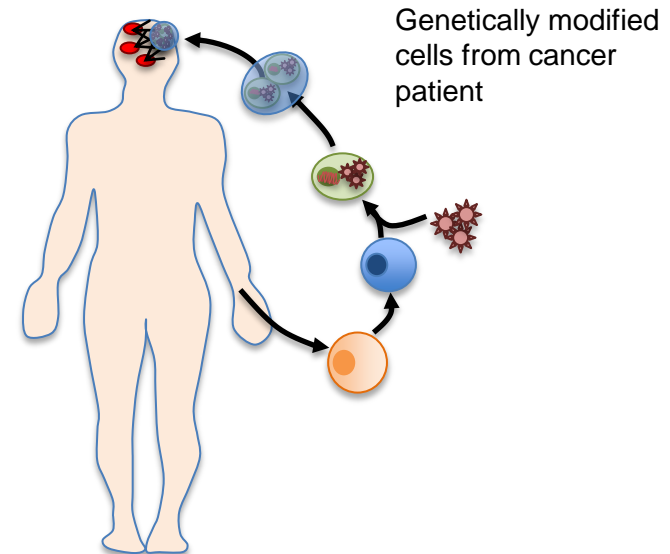
Development and Validation



Hingtgen



Neural Stem Cells
Hydrogel Matrix
Chemotherapy Prodrug



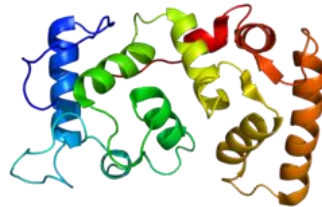
Commercial

- OCED / Carolina KickStart
- North Carolina Biotechnology Center
- SBIR/STTR
- Angel / Venture Capital

Development, Validation and Optimization

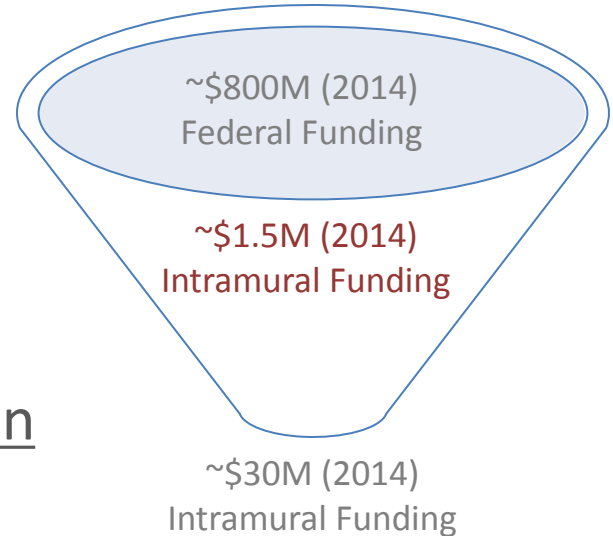


Parise



CIB1

Develop inhibitors
for cancer
treatment



Carolina KickStart Award
4D Pilot Award
STTR Award



NC Idea Foundation

- Started in 1990s
- 50m investment fund
- Must invest 5% annually
- Mission – grow the entrepreneurial ecosystem in NC

NC Idea Seed Grant program

- Started in 2006
- 10-12 grants per year of \$50k each
- Non-dilutive but with milestones
- Open to wide range of for profit startups

over
\$114 million
raised in equity funding

over
\$33 million
raised in non-equity funding

Over
\$100 million
revenue generated

76%*
grant recipients still in
business

over
400
jobs created

104
NCIDEA™
GRANT RECIPIENTS

nearly **\$4 million** awarded in grants since 2006

**Estimated Economic Impact: over 2,000 NC jobs created*

Company Impact and Growth

Mature

- >\$5M equity and/or >\$50M revenue

7 Companies
(2 Ceased Operations)

ai AUTOMATED INSIGHTS

Spring 2009 Recipient
\$10.8M Equity Funding
* Acquired *

Physcient

Spring 2008 Recipient
\$5.1M Equity Funding

Spoonflower

Fall 2008 Recipient
\$26M Equity Funding

VALENCELL

Spring 2008 Recipient
\$16.1M Equity Funding

Growth

- \$2M-\$5M equity and/or profitability and/or \$7M-\$50M revenue

9 Companies
(0 Ceased Operations)

Arcametrics

Fall 2012 Recipient
* Acquired *

GUERRILLA

Fall 2013 Recipient
\$3.5M Equity Funding
Greensboro, NC

KeonaHealth
Patient Decision Support

Spring 2011 Recipient
\$2.5M Equity Funding

Early

- \$200K-\$2M equity and/or \$1M-\$7M revenue

39 Companies
(2 Ceased Operations)

MATI
healthy energy

Fall 2014 Recipient
\$1.4M Equity Funding

ProctorFree

Spring 2013 Recipient
\$740 Equity Funding

REVBOS

Fall 2014 Recipient
\$1.1M Equity Funding

Seed

- \$50K-\$200K equity or grants and/or < \$1M revenue; MVP

49 Companies (23 Ceased Operations)
Pre-Seed/Seed: "Starting Point" for Majority of Grant Winners

akili
SOFTWARE

essay

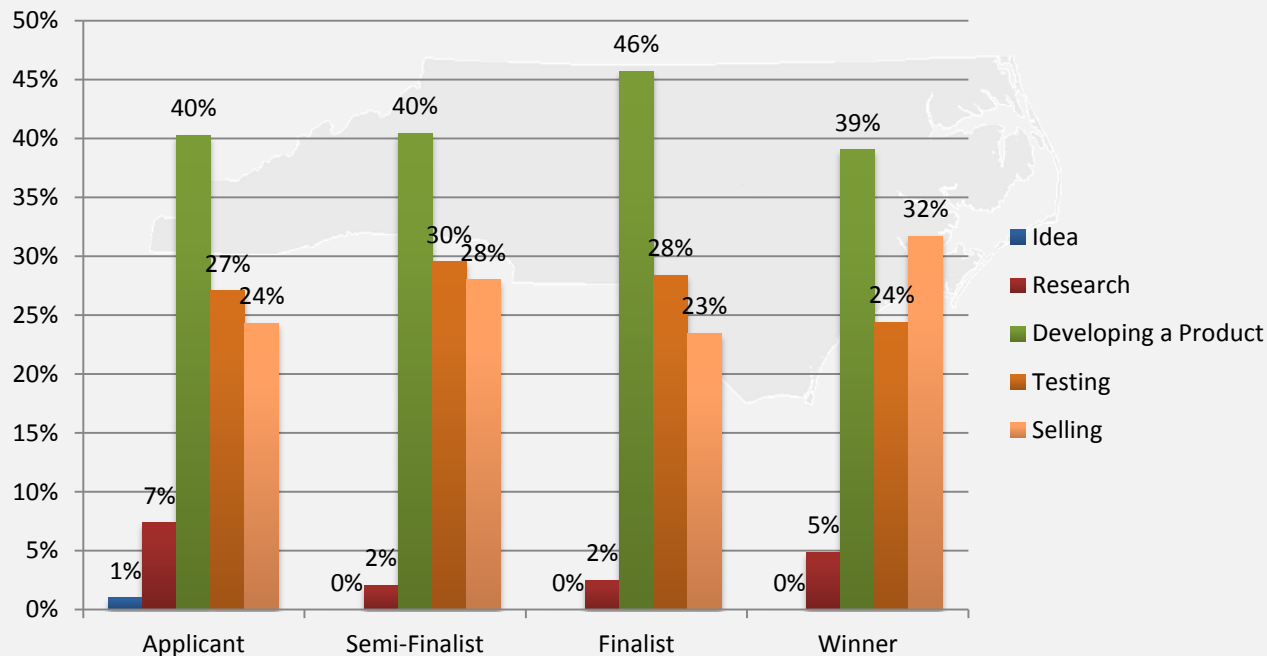
trinket

LSC
LUXURY SHOE CLUB

URBAN
UPDATES

Stage at Time of Grant

(Applicant Data: Spring 2011-Fall 2014)



16 UNC Based Winners





1. NC Idea Seed Grant program
2. NC Idea Ecosystem Partner Grant program
 - New program this spring
 - \$100k-\$250k per grant (1-3 years)
 - Open to University programs (not individuals)
 - Like Kaufman Grant programs
 - Likely needs to be a game changing idea



1. NC Idea Seed Grant program
2. NC Idea Ecosystem Partner Grant program
3. KFBS Donor Grant program
 - \$5m gift to KFBS (not committed yet)
 - Invested in UNC Management Fund
 - \$50k grants per year (5 recipients)
 - Open to for profit startups with UNC connections (including alumni)
 - Vetted by NC Idea screening application and process
 - Non-dilutive with hope of future gift



UNC KENAN-FLAGLER
CENTER FOR
ENTREPRENEURIAL
STUDIES

Carolina Challenge: Building UNC's Entrepreneurial Culture Kenan-Flagler Business School

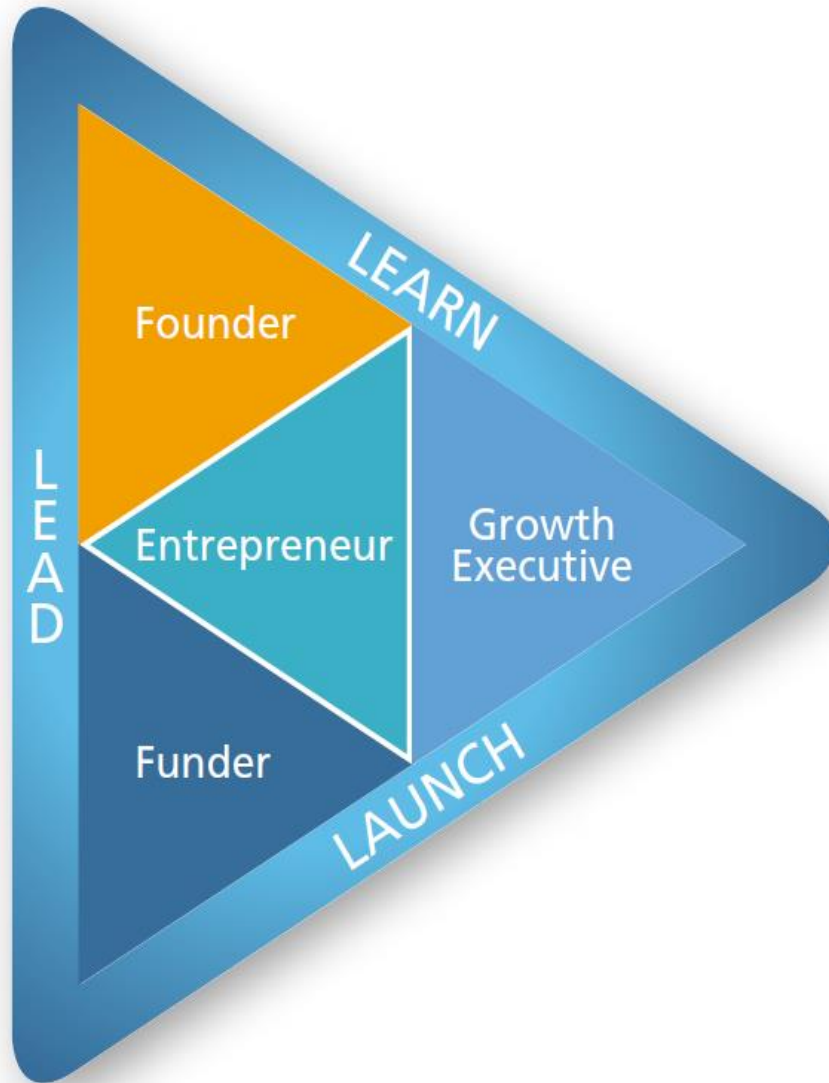
Board of Trustees > January 27, 2016
Commercialization & Economic Development Committee

*Ted Zoller, Director, Center for
Entrepreneurial Studies
T.W. Lewis Clinical Associate Professor
of Strategy and Entrepreneurship*



UNC
KENAN-FLAGLER
BUSINESS SCHOOL

Mission: Center for Entrepreneurial Studies



To build the leading US Entrepreneurship Curriculum and Program Preparing Students for an **Entrepreneurial Mindset** in **All Professional Settings** and **All Phases of their Professional Development**

- Endowed John Stedman, 1947 UNC grad
- Undergrad student management team of 13 cross campus students
- KFBS Jim Kitchen/Kris Hergert advise along with John and David Stedman from Charlotte
- 2015 was the 12th year of Carolina Challenge
- UNC campus wide series of startup events

Pitch Party
Nov 19, 2015
Blue Zone

Elevator Pitch
Rounds
TBD 2016

Challenge
Final
April 7, 2016



Pitch Party

- UNC startup competition at the Blue Zone
- Open to undergrads and graduate students
- 325+ students from j-school, comp-sci., e-minor, public health, campus y, college of a&s, b-school
- \$5,000+ in prizes to top 10 teams

2013 ROI: 47 start up teams, 29 judges

2014 ROI: 102 startup teams, 48 judges

2015 ROI: 105 startup teams, 82 judges



Pitch Party LIVE!



Competition Final

- UNC startup coaching & elevator pitch events prior to the competition finals in spring
- 100+ students from across campus, many of which competed in the pitch party
- \$45,000+ in prizes to top 21 teams in 3 tracks: non-profit, profit, & grad student

2014 ROI: 16 teams, 5 judges, 60 guests

2015 ROI: 21 teams, 8 judges, 85 guests



UNC Startup Success



UNC Recent Startup Success



TECHFLASH

Done deal! NetSuite closes on \$200M buy of Durham's Bronto

Jun 9, 2015, 12:00pm EDT Updated Jun 9, 2015, 2:00pm EDT



WINDSOR CIRCLE

Keep Your Customers

Windsor Circle closes \$5.25M in Series B



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

UNC Impact from SBIR/STTR Funding

Tim Martin, Assistant Director
Carolina KickStart

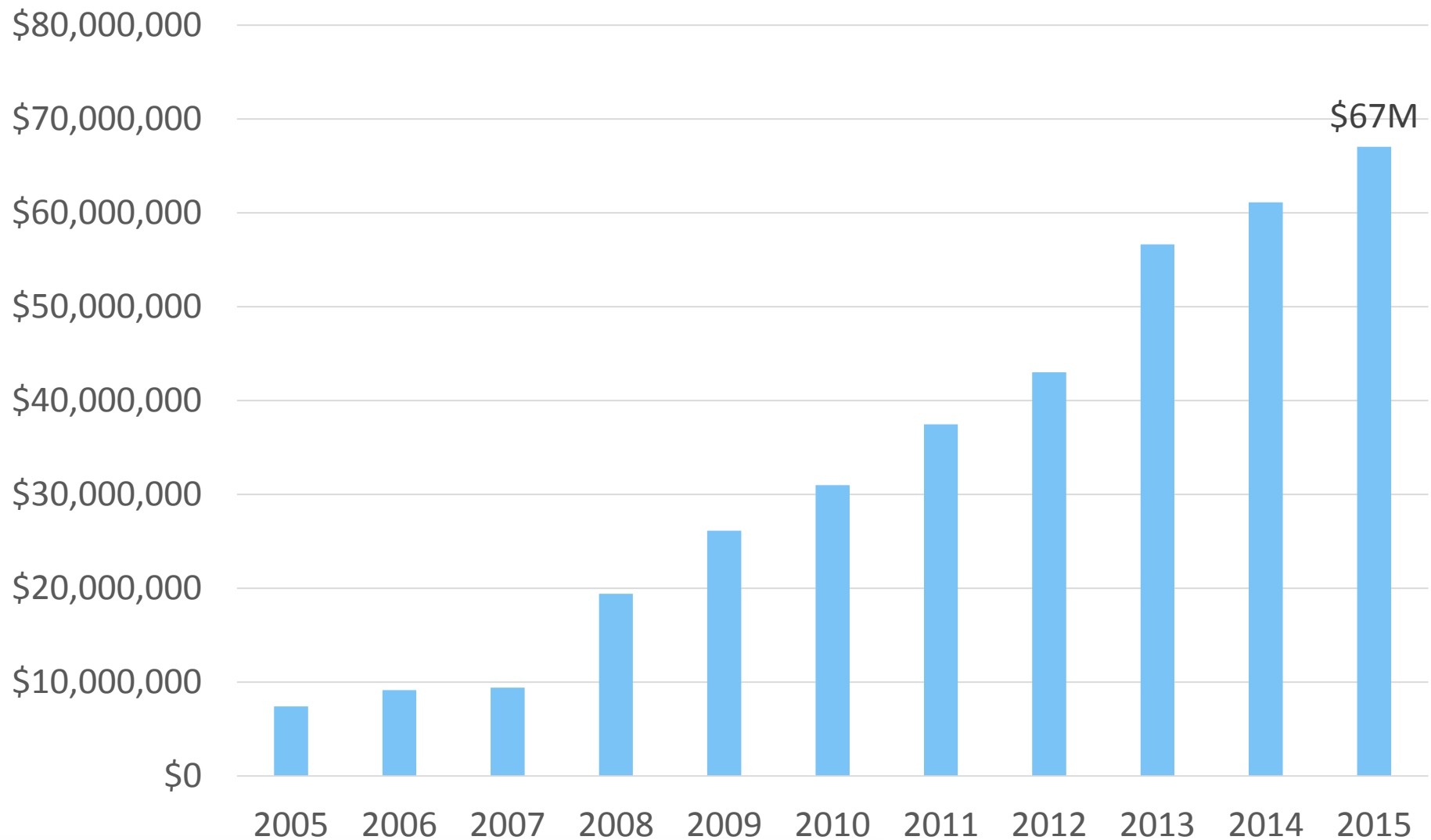
Title

What are the SBIR and STTR Programs?

- Designed to encourage startups to complete R&D that will lead to commercialization
- Non-dilutive funding during the valley of death
- Proving ground for new technologies
- SBIR/STTR applications are a core foundation to UNC startup companies



UNC SBIR/STTR Cumulative Funding



UNC Emerging Companies with SBIR/STTR Funding



\$14.85 Million

Morphomics, LLC (acquired)

\$8.62 Million



\$6.33 Million

Average SBIR/STTR Award Per
Companies (37 Startups since 2005)

\$1.81 Million





THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

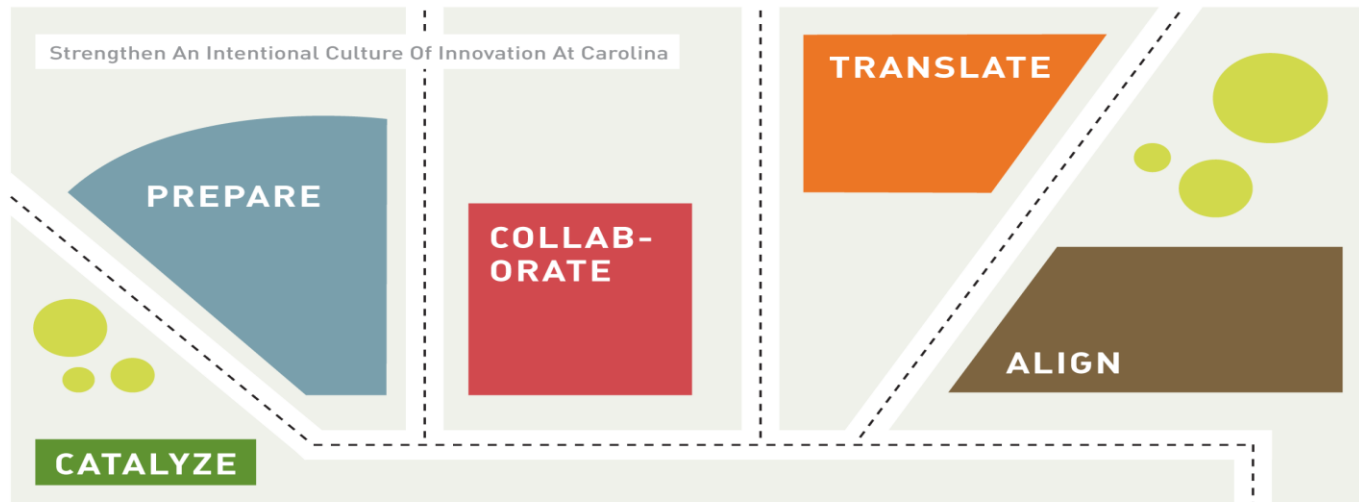
Carolina Research Ventures, LLC

Sallie Shuping-Russell | 2016 Jan 27

Overview

INNOVATE @ CAROLINA

IMPORTANT IDEAS FOR A BETTER WORLD



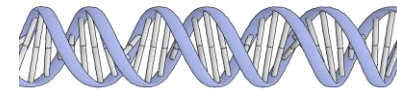
Important ideas
for a better world ►



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Why do we need a venture fund?

**Capillary
Electrophoresis**



INSPIRE 
PHARMACEUTICALS, INC.

carbon3DTM





Hibernaid, Inc.
Troy, NY and Chapel Hill, NC



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Market Opportunities – Carolina Responds

Healthcare Inefficiency Creates Market Opportunities

**BUSINESS
INSIDER**

The Tragic Inefficiency Of America's Health Care System
April 11, 2013

Forbes

June 29, 2015

U.S. Health Care Costs Rise Faster Than Inflation

Opportunities in improving outcomes
and reducing cost

Innovations	UNC Startups
Personalized medicine	HealthSpan Dx, GeneCentric Diagnostics, Nutrigene Sciences
Miniaturization of devices	908 Devices, BioFluidica, SonoVol, Rheomics
Telemedicine	Advanced Telecare
Optimizing patient data workflows	Keona Health
Point-of-care diagnostics	Cortical Metrics, BioFluidica, Rheomics
Improved patient experience	Bivarus, Augment Medical



Emerging Technologies – Carolina Opportunities

Immunotherapies and artificial intelligence are big industries

Forbes Harnessing The Immune System To Fight
Cancer: 'Now We Can Offer Hope'
Dec 4, 2015



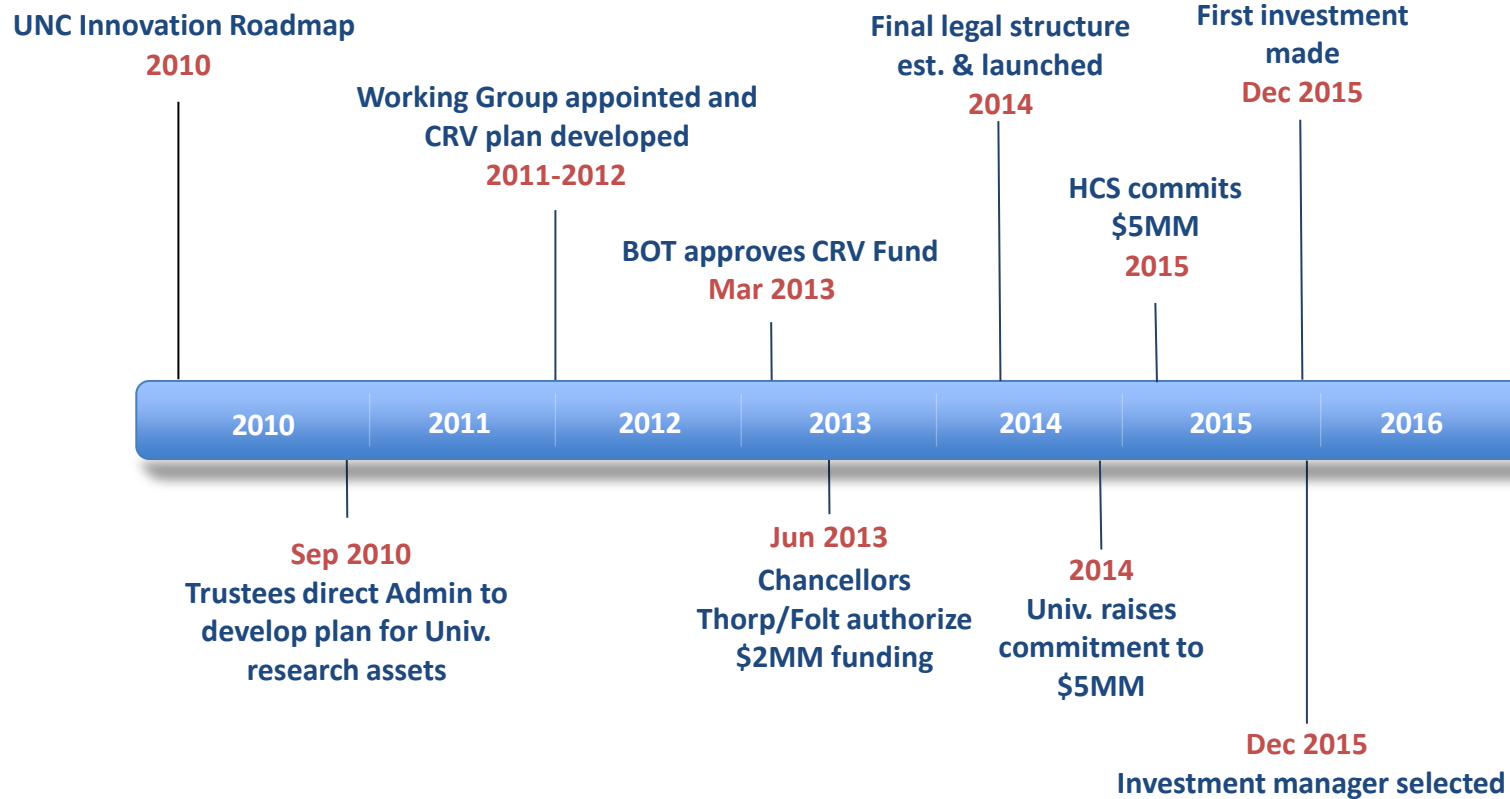
Artificial Intelligence Is Almost Ready for Business
March 19, 2015

Opportunities in emerging technologies

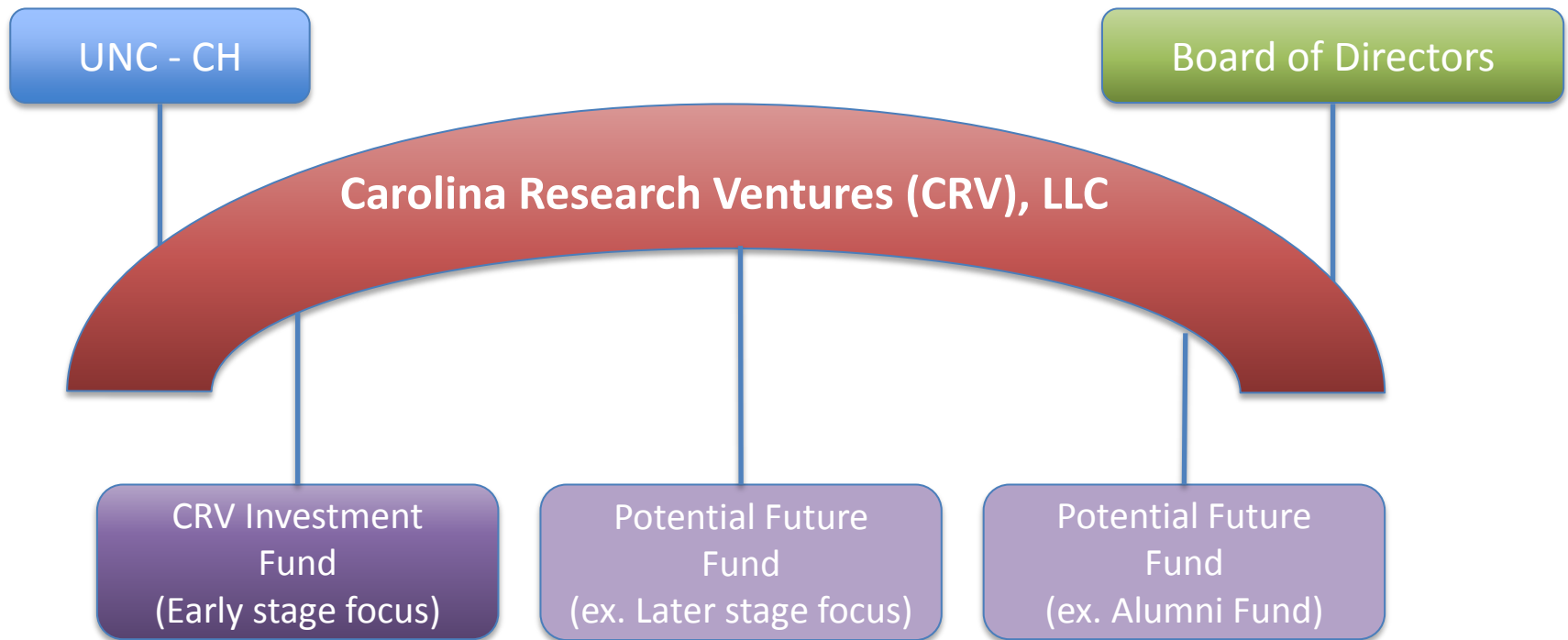
Healthcare Related	IT Related
Immuno-oncology	Cybersecurity, especially offensive
Gene splitting	FinTech (Financial Technology)
Anti-infectives	Sharing Economy 2.0
Ocular diseases	Virtual Reality for Consumers
Point of care diagnostics	Artificial Intelligence
Healthcare IT	Custom wearables



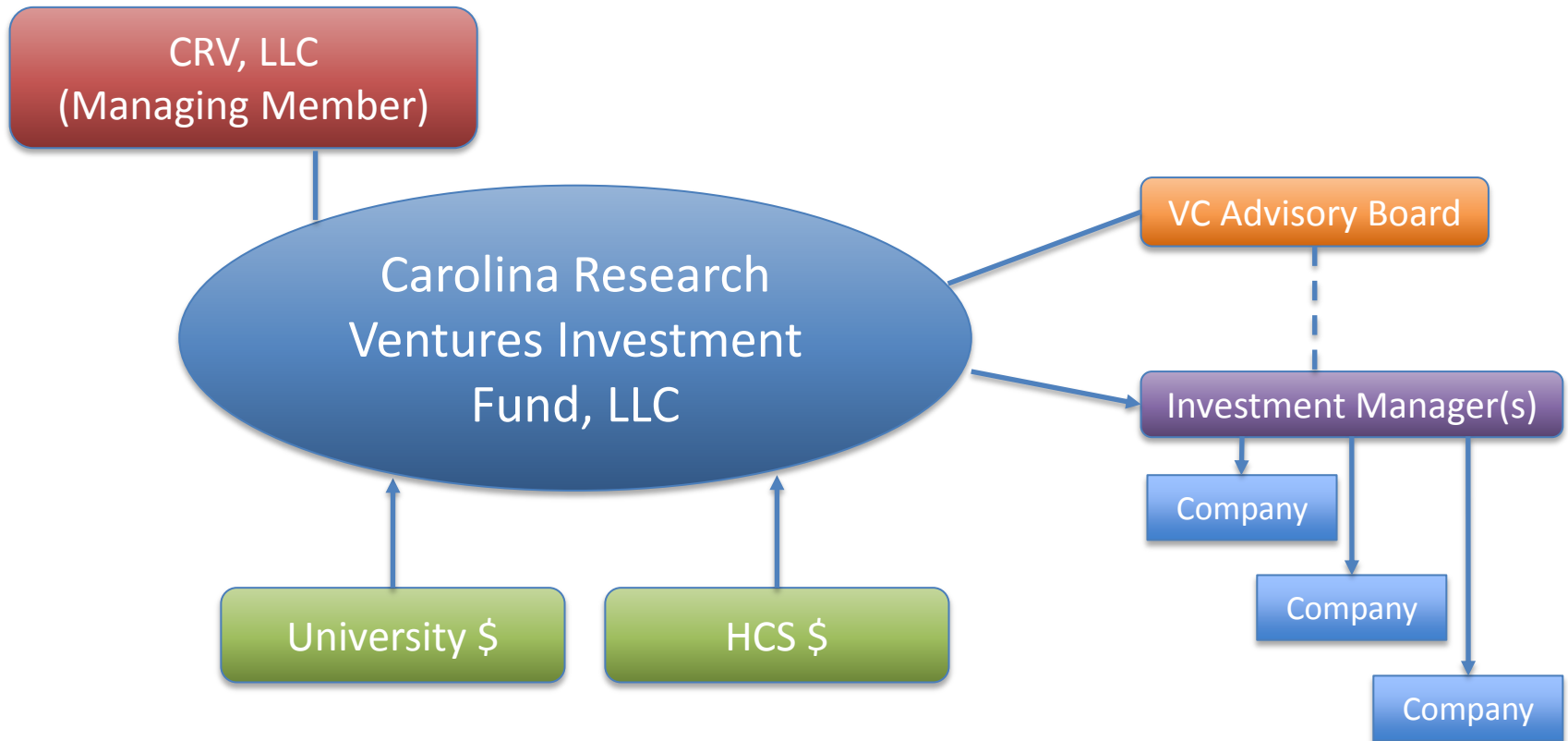
It's taken some time ...



Carolina Research Ventures, LLC



Carolina Research Ventures, LLC



Board – Directors and Observers



Sallie Shuping-Russell, Chair
Mng Dir, BlackRock Private Equity Ptns
Former UNC Trustee & UNC Healthcare Director



Lowry Caudill
Co-Founder, Magellan Labs
UNC Trustee, Former Chair



Haywood Cochrane
Former CFO, LabCorp
UNC Trustee, Vice Chair



Trey Crabb
Mng Dir, Healthcare M&A, Ziegler & Co
UNC Healthcare Director



Matt Fajack
Vice Chan Finance & Admin, UNC-CH
UNC Healthcare Director



Jon King
CEO UNC Management Company
Chief Investment Officer, UNC Inv Fund



Steve Lerner
Entrepreneur & Mng Ptn, Blue Hill Group
Former UNC Trustee



Terry Magnuson
Vice Dean of Medicine for Research
Chair & Prof Genetics;
Prof, Biomedical Engineering



Randy Myer
Prof of Entrepreneurship, KFBS
Chair, NC IDEA
Former Entrepreneur



Judith Cone, Observer
Spec. Asst to Chancellor for Innov & Entrep
VC Commercialization & Econ Dev



Manager Selection Process



Manager Selected



- Hatteras Venture Partners
 - Established 2000
 - Healthcare Focus
 - Total Investments: 53 (\$139MM)
 - Investments with UNC Affiliation: 8 (\$31MM)
- IT/Material Science Focus Consultant



Next Steps – Blast Off



- Early stage focus
- 7 – 12 companies for this tranche
- Initial Investment per company: \$50,000 - \$250,000
- Max investment in single company: \$2MM (Including Follow-On \$)
- First Company: Cancer therapeutic drug company from Lineberger Cancer Center



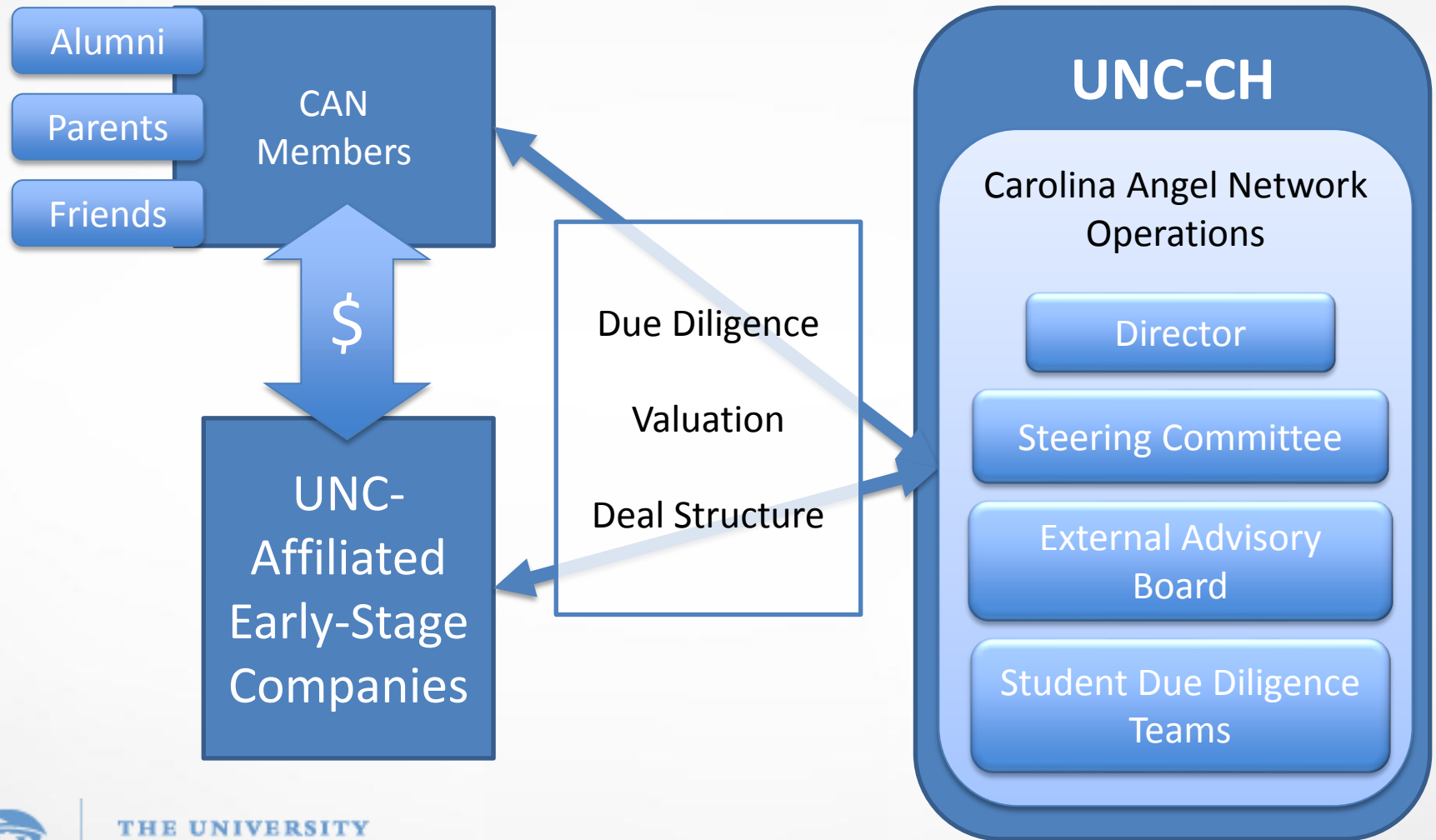


THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Carolina Angel Network

BOT Meeting (27 Jan 2016)

Carolina Angel Network Overview



Benefits of the Carolina Angel Network

- Establishes new affinity group for Carolina
- Provides educational opportunity for students
- Broadens the entrepreneurial ecosystem





TED^xUNC

x = independently organized TED event

Teerth Brahmbhatt
Ashita Gona
Olivia Nicolaus

Students



Page 45/59



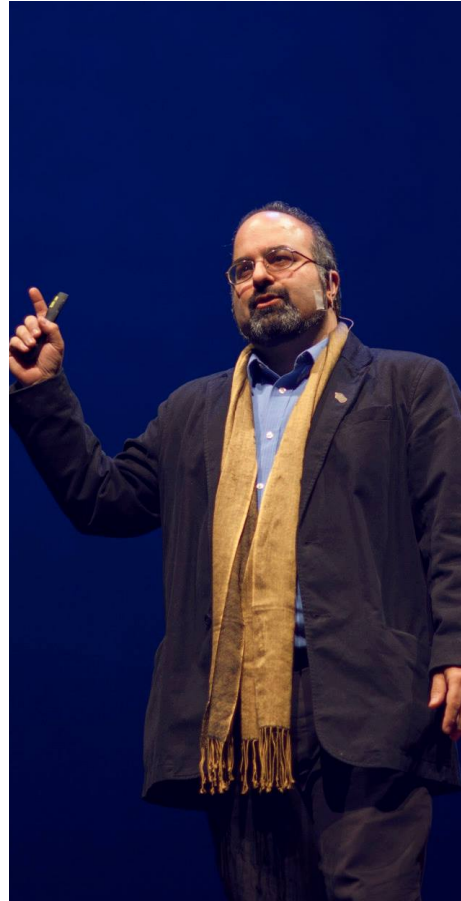
Alumni



Faculty

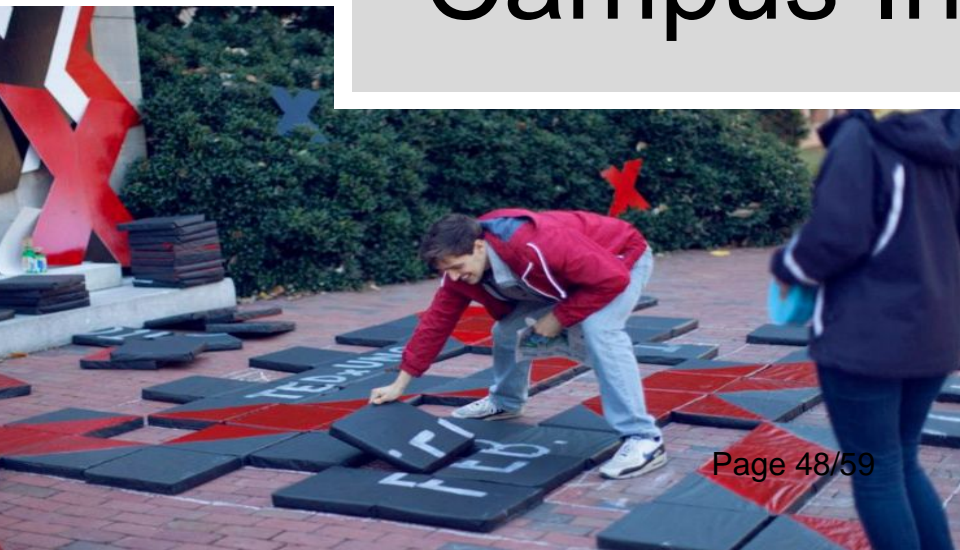


Page 47/59





Campus Involvement



By the Numbers

7,462	Youtube views
4,498	Facebook likes
4,478	Email listserv subscribers
2,971	Livestream viewers (2015)
1,100	Conference attendees (2015)
43	TEDxUNC committee members
36	Minutes for tickets to sell out (2015)
25	Countries watched livestream (2015)



TEDxUNC 2016

Bodies: Being Human

**February 27, 2016 in
Memorial Hall**

- **16** Internal and external speakers and performers
- **2** smaller Salon conferences throughout year



“Bodies: Being Human”

At TEDxUNC 2016 we strive to explore the human body from multiple perspectives.

- What inputs can make our body thrive or struggle?
- How can we use our body as a tool?
- What challenges and questions relate to the human body?
- What advances will we make in the near and far future that will allow us to expand our capacity as a species?

**This topic includes: biology, art, athletics, engineering, medicine,
mental health, technology, social justice**



2016 Speaker Highlights

Jeff Powell



Jeff Powell is a recent graduate of the Biomedical Engineering program at UNC. While in school, Jeff started The Helping Hand Project, a volunteer group which makes affordable prosthetic hands that are donated to children with limb differences. Jeff currently works at Transenterix in RTP, advancing robotic laparoscopic surgery.

Amy Black



Amy Black is an award winning tattoo artist based in Richmond, Virginia and is the founder of The Pink Ink Fund, a non-profit organization that seeks to aid people needing assistance with their post mastectomy tattoo needs as part of their breast reconstruction due to breast cancer.

2016 Speaker Highlights

Omar H. Ali



Omar H. Ali is a historian of the African Diaspora who is of East Indian and Peruvian descent. He is Interim Dean of Lloyd International Honors College at The University of North Carolina at Greensboro. A graduate of the London School of Economics, he received his Ph.D. in History from Columbia University. His latest book, *Malik Ambar: Power and Slavery across the Indian Ocean* (Oxford University Press, 2016) explores 'race' as a function of power. He was recently rewarded the 2016 Carnegie Foundation North Carolina Professor of the Year.

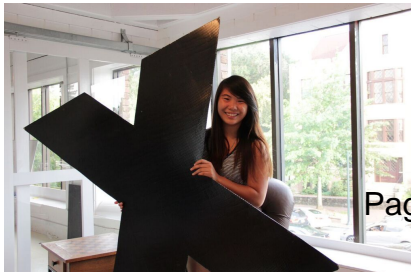
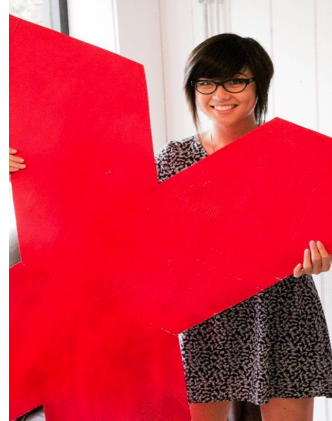
Hans Florine



Hans Florine is a speedclimber, professional speaker, author and thought leader in speed and efficiency. Hans has repeatedly set and broken one of the most coveted speed records in the world: The Nose of El Capitan, a 2,900-foot monolith in Yosemite Valley. In 2012, Hans, alongside climbing partner Alex Honnold, took the record again in 2 hours and 23 minutes, lowering the previous record by a full 13 minutes.

The Future...

- Scale attendance to **3,000 people**, move to a larger venue
- Host more **Salon events** throughout the year to have formative conversations
- Continually source **more faculty and student speakers**





Thank you!

Page 55/59

TED^xUNC

x = independently organized TED event

Appendix

- I. [2013 Speakers](#)
- II. [2014 Speakers](#)
- III. [2015 Speakers](#)



2013 Speakers

- Abigail Washburn: American Global South
- Alexander Julian: 30,000 Colors, 35 Years of Design
- Allen Mask: Rebel Beats
- Andrea Reusing: Resetting the Table
- Carolina Chocolate Drops: Sankofa, Reclaiming History
- Corey Ford: Intentional Serendipity
- Herrison Chicas: Living While Dying
- Holden Thorp: Global Health Innovations
- Gamelan Nyai Saraswati: Javanese Music
- Indi Cowie: INDIVIDUAL Soccer Freestyle
- Jane Thrailkill: Tripping, Delirium, and other Mind Expanding Experiences
- Kevin Guskierwicz: Making Sports Safer Through Innovative Science
- Sajan George: The Future of Education
- Stirling Little: Gender in Video Game Culture
- Theaster Gates: Creating Heat, Art as Catalyst

Page 57/59



2014 Speakers

- Magatte Wade: The Four Stages of Bringing an Idea to Life
- Ajit George: From Untouchable to Unstoppable
- Safiyah Ismail: Bringing Language to Life
- Sujata Bhatia: Innovate by Nature
- Debra Barksdale: Rising from the Mud
- Amro Albanna: Gaining Altitude Together
- Yazmany Arbodela: 10,000 reasons to believe in the power of art in public space
- Clockwork Kids: I'm Not Alone
- Bethania Bacigalupe, christine soykal, Josh Young: Acroyoga
- John Miller: No Bees, No Food
- Charles Allen: Security and Freedom in an International World
- Zeynep Tufekci: In Defense of Going Deep in a Viral World

- Jerry Linenger: Changing Perspective Off the Planet
- Omid Safi: Prophet, Not Icon
- Bobby Mook: FOMO, the Fear of Missing Out
- John J. Woods: What the World Needs now is...GSD
- Terry Rhodes: Amore
- Lee Weisert & Jonathan Kirk: Subaquatic Sound Art
- Mark Katz & Carolina Beat Academy: Taking Music Education to the Next Level



2015 Speakers

- Lala Main: Lyrical Performance
- Venroy July: Assemble to Gain Perspective
- Alyse Schacter: The Stigma of Mental Illness
- Ellis Dyson and the shambles: Musical Performance
- Chase Lewis: Inventing 101
- The NightShift: Jazz Fuzion Musical Performance
- Khalil Fuller: Cool As The Other Side of The Pillow
- Jonathan Hebert: Improvise In your Daily Pursuits
- Todd Zakrajsek: Improve Learning by Thinking About Learning
- Karsten Coates: That Thou Art
- Naimul Huq: The 12 Secrets of Marketing and You Won't Believe What Happens Next
- Dalton Conley: Stalkers, twins, and the case of missing heritability
- Amber Koonce: The Beauty Gap
- Kewulay Jumara: A Foresight Storytelling Experience
- Jaspal Sandhu: Design Like Jimmy V
- Kathleen Galagher: The Healthy Child: Assembly Required

