



 COLUMBIA
TECHNOLOGY
VENTURES
Panel Presentation

Feb 26, 2025

Gwen Nero, PhD
Director, Industry Relations Group

techventures@columbia.edu



Many Ways for Innovation to Flow Out From Universities



- Publications
- Student internships & jobs
- Faculty consulting
- Collaborations
- Sponsored research * Close partners with SPA
- Licensing
- Start-ups

*Not the University's primary focus,
but the focus for CTV*

Columbia's Tech Transfer Mission



TO FACILITATE

the translation of academic research into practical applications, for the benefit of society on a local, national and global basis. To do so at market-rate terms in order

TO SUPPORT

research, education and teaching at Columbia by generating funding for the University and facilitating partners with industry where appropriate

TO EDUCATE AND SERVE

as a resource for the Columbia community on matters relating to entrepreneurship, intellectual property, and technology commercialization

Research Innovation at Columbia University

FY2024 FACT SHEET



LICENSE AND
OPTION AGREEMENTS



Columbia Lab-to-Market Accelerator Network (L2M): Breakthrough Inventions → Life-Saving and Life-Improving Products

Program	Funding	Focus	Target Scope
Accelerating Cancer Therapeutics (ACT)	Mix (NIH, CU)	Oncology Therapeutics	CU Faculty
Biomedical Engineering Technology Accelerator (BiomedX)	Mix (Philanthropic, CU)	Biomedical Engineering	CU Faculty
Beiersdorf Skin Science Collaboration	Private (Beiersdorf)	Dermatology	CU Faculty
Carbontech Development Initiative	Public (NYSERDA)	Carbon Capture	New York State
Corning Advanced Materials Prize	Private (Corning)	Advanced Materials	CU Faculty
CU - RTW Rare Diseases Alliance	Philanthropic (RTWCF)	Rare Diseases	New York City
CU-IBM Launch Accelerator	Private (IBM)	Deep Tech	New York City
CU-NYU-Takeda Alliance	Private (Takeda)	Gastroenterology	CU / NYU Faculty
CU-SDP Oncology Research Alliance	Private (Sumitomo)	Oncology	CU Faculty
Cyber NYC (I2F)	Public (NYCEDC)	Cybersecurity	New York City
Irving Cancer Drug Discovery Program (ICDDP)	Internal (HICCC)	Cancer	CU Faculty
Hudson Heights Innovations	Private (Deerfield)	Therapeutics	CU Faculty
Materialize New York	Private (Material Impact)	Advanced Materials	New York City
'Math Meets Bio' CU - AlleyCorp Collaboration	Private (AlleyCorp)	Computational Biology	New York City
NSF Engineering Research Center for Smart Streetscapes (CS3) VALIDATE Accelerator	Federal (NSF ERC)	Smart City	National
NYC Media Lab Combine	Public (NYCEDC)	Media and Emerging Tech	New York City
NYS Biodefense Commercialization Fund	Public (NYS ESD)	Pandemic Preparedness	New York State
PowerBridgeNY	Public (NYSERDA)	Clean Tech	New York State
PORTENT Accelerator	Private (POCTRN)	Point of Care Diagnostics	New York City
Translational Therapeutics Accelerator (TRx)	Mix (NIH, CU)	Therapeutics	CU Faculty

700

Alumni - teams that went through one of the accelerators

120+

Commercial launches – licenses, companies launched, exits

362

of cash awards to teams

\$54M+

Funding – awarded to accelerator teams

\$288.3M

Additional funding – raised by accelerator teams

Catalyzing Research Translation & New Businesses

Selected examples



28 Awardee Teams
\$5M+ Awarded
8 Academic Institutions
11 Startups

NEW YORK STATE OF OPPORTUNITY | NYSERDA

Carbontech Development Initiative

- Grant-seeding and commercialization initiative for Carbontech science and technology supporting R&D, technology transfer, and commercialization
- CDI awards teams in the following three topic areas:
 - CO2 Capture Technology
 - CO2-to-Building Materials
 - CO2-to-Chemicals, Fuels, & Materials

Beiersdorf and Columbia University

SKIN SCIENCE COLLABORATION

Request For Proposals

CDI's third application is open now and will close on **Wednesday, March 12, 2025 at 5:00PM ET**. Please contact L2M@ctv.columbia.edu for further information.

Beiersdorf is \$5M, 5-year collaboration. Next Beiersdorf solicitation in early 2026.

Deerfield is \$130M, 10-year collaboration; opportunities ongoing.

Visit techventures.columbia.edu for all funding opportunities

DEERFIELD®

Support & Connections from CTV's Executives in Residence



Ferass Abuzaina
BD



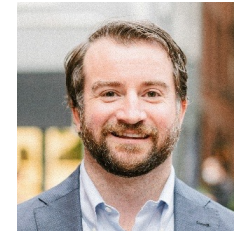
Christine Baker
Hookipa Pharma



Anastasia Christianson
Pfizer



Elma Hawkins
Thylacine Biotherapeutics



Tristan Hunt
Bedford Bridge



Micah Kotch
Blackhorn Ventures



Cristina Larkin
Spero Therapeutics



Haresh Mirchandani
J&J



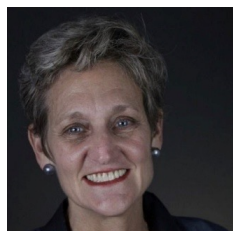
Peter Mundel
Atlas Venture



Sandeep Patel
BARDA



Eric Rosenblum
Foothill Ventures



Karen Stein
Pfizer



Ian Tolfree
Emerald Development Managers

Support & Connections from CTV's Executives in Residence



<http://techventures.columbia.edu/about-ctv/ctv-executives-residence;>
<http://www.nature.com/bioent/2015/150701/pdf/bioe.2015.8.pdf>

Active Connections to VC Investors

Semi-annual “Start-up opportunities” email to ~1000 venture and angel investors, including:

- 5AM
- NEA
- Eclipse
- Deerfield
- Domain
- Kairos
- Arch
- Puretech
- Hemi Ventures
- Matter
- In-Q-Tel
- Two Sigma
- Alexandria Equities
- Andreesen Horowitz
- M12 (Microsoft)
- Breakthrough Energy
- Matrix Partners
- Google Ventures
- Domain
- GE Ventures
- Domain
- Samsung Ventures
- Versant
- Osage Partners
- Atlas
- Apple Tree
- JVP
- IP Group
- Fortress
- First Round
- Horizon X
- New York Angels
- Bain Capital
- MPM Capital
- Intel Capital
- Atlas Ventures
- Flagship Ventures
- Lightspeed

Annual Investor Pitch Day

- Joint with other univ (Penn, Harvard, MIT, Yale, UCLA, Berkeley, Johns Hopkins)
- 200+ investors from 100+ firms
- ~36 startups



Two Online Libraries of Commercialization Resources for Faculty & Students

Columbia Grant Clauses Library contains up-to-date clauses relating to entrepreneurship and technology commercialization for use in grant proposal preparation. The library is available here, with UNI login: <https://techventures.columbia.edu/grant-supplement-language>

Columbia Commercialization & Entrepreneurial Resources Database is a university-wide resource geared toward providing a comprehensive and searchable list of all entrepreneurially-related activity at Columbia. To learn more please visit: <https://innovationresources.columbia.edu/>

Table of contents

Technology Transfer at Columbia

- Please provide an overview of the tech transfer capabilities at Columbia
- How does the tech transfer office manage inventions?

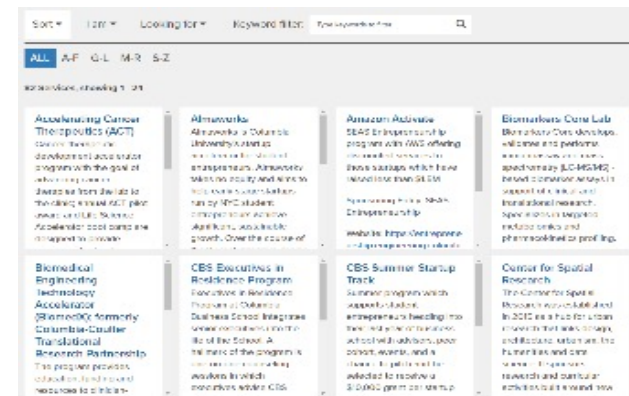
Intellectual Property (IP)

- How will the different IP emerging from the patent be managed?
- How does Columbia comply with NIH guidelines for dissemination of the results of NIH-funded research?
- How will multi-institutional IP emerging from the collaboration be handled?

Entrepreneurship at Columbia

- How does Columbia support entrepreneurship / startups?
- How does CTV support entrepreneurship / startups?
- Mentors
- Columbia Accelerator
 - Columbia Biomedical Accelerator
 - NYC Media Lab
 - Prostate Biotech
 - Translational Therapeutic Accelerator
 - Accelerating Cancer Therapeutics

Additional Resources and links



Providing Support for SBIR / STTR Applications

Administered by the Small Business Administration, The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) federal programs provide unique opportunities to small businesses to explore their technological potential and provide the incentive to profit from its commercialization



CTV/L2M provides multi-tier support to teams in its portfolio:

General Workshops

Interactive, two-day SBIR/STTR workshops where CTV/L2M faculty, students, and startup teams benefit from general guidance about the programs, including:

- Obtaining fundamentals and up-to-date information on the SBIR/STTR programs
- Taking a deep dive into the differences between SBIR and STTR programs from the perspective of academic research teams
- Reviewing how to prepare SBIR proposals for NIH, DoE, NSF, DoD, and other agencies
- Learning how to avoid common pitfalls and prioritize during the application process



Additional Follow-on Support

Columbia teams based on a license or option to Columbia intellectual property (executed or in negotiation) have access to the following additional resources:

1. Follow-on individual counseling by BBC Training & Consulting, to support the full application writing process
2. Research support by CTV Fellows to facilitate writing the commercialization section of the proposal
3. Review by CTV TLOs of the commercialization section of the SBIR/STTR applications
4. CTV can also provide letters of support for grants or for SBIR applications (requires at least one week notice prior to the grant deadline)

Providing Support for ARPA-H Applications

ARPA-H advances high-potential, high-impact biomedical and health research that cannot be readily accomplished through traditional research or commercial activity. ARPA-H awardees are developing entirely new ways to tackle the hardest challenges in health.

Visit: arpah.gov



Observations based on awards

- ARPA-H awards have significant research translation and commercialization expectations.
- The PATIO team at ARPA-H has been indicated as the agency staff to work with PIs and their tech transfer offices on translation.
- Each Project Manager (PM) has different research translation and commercialization goals.

CTV can:

- Support proposal development with a focus on commercialization and translation
- Pre- and post-award, review intellectual property (IP) obligations
- Post-award, participate in project kick-off meetings, monthly meetings with PMs, and PATIO team meetings
- Post-award, meet with technology transfer offices from partnered institutions and develop IP Management Plans

CTV encourages PIs to engage with their licensing officer early in proposal preparation, upon award decision, and at critical award milestones.

All externally sponsored project proposals are required to be reviewed and endorsed by SPA prior to submission.

CTV Faculty Ambassadors

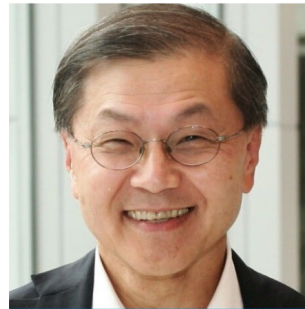
Liaisons between researchers and CTV



Henry Colecraft



Christine Denny



David Ho



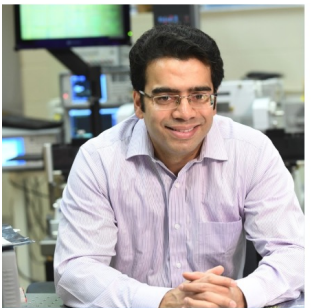
Anil Rustgi



Scott Small



Brent Stockwell



Harish Krishnaswamy



Vishal Misra



Azra Raza



Gordana Vunjak-Novakovic



Alan West

Please reach out to CTV anytime to access these resources or connect with a licensing officer to discuss their project in more detail.

techventures@columbia.edu

Gwen.Nero@columbia.edu

Visit: techventures.columbia.edu