

CALL FOR PRE-PROPOSALS

\$1M in funding and support to develop promising biomedical technologies www.bme.columbia.edu/coulter | coulter@columbia.edu

Agenda

- About the Partnership & Our Mission
- The Coulter Process & Program Offering
- Application Process Overview

About the Partnership



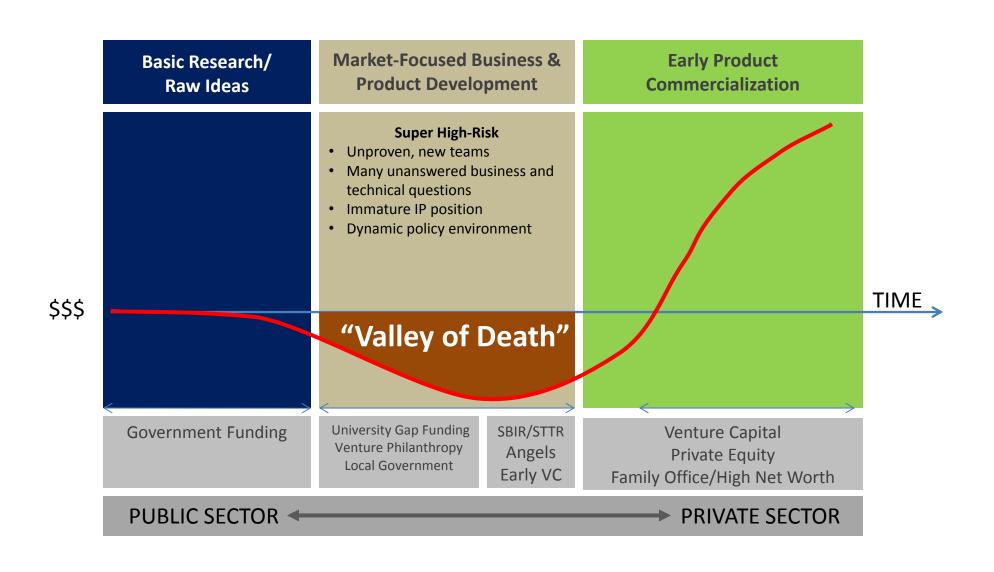
- Launched in 2011 with generous support from the Wallace H. Coulter Foundation.
- Led by the Department of Biomedical Engineering, in collaboration with the Departments of Surgery, Orthopaedic Surgery and Radiology, and Columbia Technology Ventures.

Coulter Mission

To get products on the market to help patients

- Via a commercial path, to reach as many people as possible
- Via a license to an established company or new venture
- Driven by a sense of clinical urgency

The Funding Gap



Proven Accelerator Model

- Since 2005, the Coulter Foundation has partnered with 15
 universities to implement the Coulter Process for biomedical
 technology development, funding more than 300 translational
 research projects across the nation.
- Roughly 1 in 3 of the projects has resulted in licenses to established companies and/or professionally financed new ventures, altogether raising more than \$500M in follow-on funding.

The Coulter Process

The Coulter Process involves:

- Funding to perform specific, determinative experiments to get to human studies (if required) and to patients as quickly as possible
- Business resources to bring downstream commercialization considerations, upstream
- Intellectual property counsel to track the evolution of the design and development of your technology
- Active project management to execute projects in a managed process with measurable outcomes that will enable a go/no-go decision by commercial partners

How is Coulter Different?

Coulter funds commercialization of science not scientific discovery

- Coulter funds are provided to perform specific tasks needed to validate a commercial hypothesis (vs. a scientific hypothesis).
- Coulter funding is milestone-based and funds are paid out in tranches, on achievement of specific milestones (vs. commitment of funds regardless of outcomes).
- Coulter funds are expected to serve as a bridge to commercial investment (vs. a temporary means to support the lab or bridge to no-where).

What the Coulter Program Offers

Objective

Products on the market helping patients

Funding

Up to \$700K per year of direct project funding available

Non-Monetary Support

- Additional \$300K worth of in-kind resources
- Intellectual property evaluation and filing
- Access to specialized expertise (regulatory, reimbursement)
- Access to commercialization advisors (entrepreneurs, industry vets)
- Technology marketing and partnering (companies, investors)
- Legal agreement transactions (CDAs, MTAs, SRAs, SPAs, IIAs, licenses)
- Assistance with SBIR/STTR grants for follow-on-funding
- Introductions to start-up resources (space, service providers, mentors)

Available Funding Details

- Up to \$700,000 available for direct program costs with an additional \$300,000 worth of in-kind resources
- No funding limit per project or set number of projects, but requested budget should be proportional to the size of the business opportunity
- Historically, 5 to 7 projects funded per year, with budgets ranging from \$65K to \$210K, and a median award size of \$100K
- Projects must be able to reach a commercially-relevant milestone in ~12 months

Allowable Expenses

Funds MAY be used for:	Funds MAY NOT be used for:
 salary and fringe benefits for project personnel (other than PIs or Co-PIs) 	 salary or fringe for PIs or Co-PIs
 materials and supplies (including animal costs for preclinical studies) 	• tuition
 consumable equipment (e.g. components for systems) 	space and renovations
 subcontracting/outsourcing technical work 	• indirect costs
 costs for human studies (e.g. IRB fees, patient recruitment fees, etc.) 	• fund your start-up

Who Should Apply

Your Project Must...

- Address an unmet clinical need.
- Answer critical questions necessary to inform a commercial go/no go decision.
- Have a reasonable chance of achieving a university exit within 3 years.
- Be based on an idea or invention based on Columbia intellectual property.

Your Team Must...

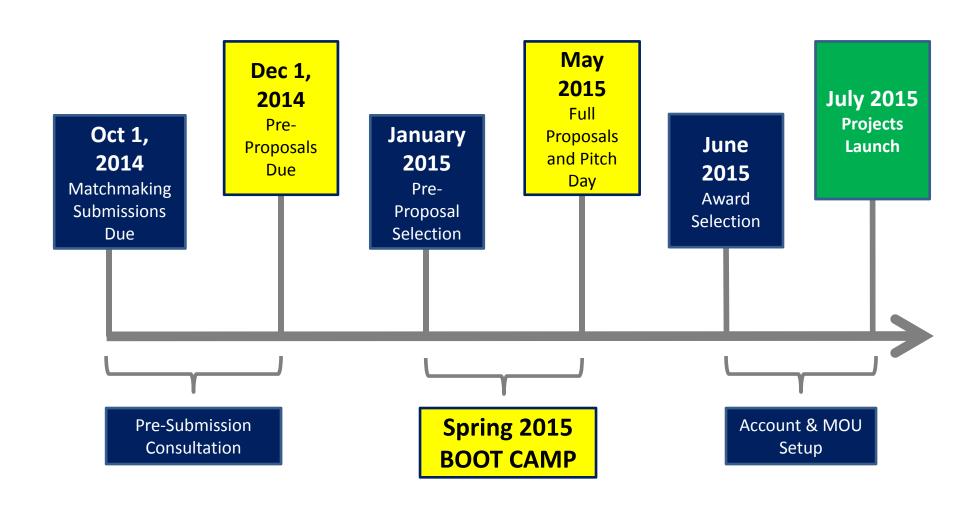
- Be comprised of both an engineer and a clinician, at least one of which must have a faculty appointment at Columbia.
- Be open to receiving mentorship, coaching, and external oversight.
- Be committed to translating research results into practical clinical application.
- **Meet regularly** with project managers and report to the Board on progress towards technical and business milestones.
- Be willing to kill a project, if the data and the market point to a non-viable solution.

Application Process

Multi-Stage Application Process

- Pre-Proposal Submission: December 1, 2014
- Boot Camp: February through March, 2015
- Pitch Day and Full Proposal Submission: May 2015

Application Timeline



Full Proposal Components

Clinical Problem / Unmet Need

Envisioned Product

Standard of Care

Value Proposition

Market Landscape (opportunity, competition)

Go-To-Market Strategy

Killer Experiment

Required Investment and Use of Funds

All reviewers sign confidentiality and IP assignment agreements.

Selection Criteria

- Externally-validated, viable business opportunity
- Potential for university exit within 3 years (license to an established company or funded new venture)
- Team coachability and commitment

ULTIMATELY...

Can the Project attract Follow-On Investment?

Board / Oversight Committee

Andrew Laine, DSc

Professor & Chair, Biomedical Engineering PI, CCTRP

Josh Tolkoff, MS

Accelerator Executive, CIMIT Managing Director, Ironwood Capital

Frank DeBernardis

Founder & CEO
Nascent Enterprises

Donna See

Director, Columbia Technology Ventures
Director, CCTRP

Chaitan Divgi, MD

Professor, Radiology Columbia University

Omar Amirana, MD

Managing Director Allied Minds

Misti Ushio, PhD

Managing Director & Executive VP Harris & Harris

Andrea Nye

Assistant Director CCTRP

Elias Caro, MSc

VP, Technology Development Wallace H. Coulter Foundation

Orin Herskowitz, MBA

VP, Intellectual Property & Tech Transfer Columbia Technology Ventures

William Levine, MD

Professor, Orthopaedic Surgery Columbia University

Online Application: Sign Up/In

columbiacoulter.myreviewroom.com

Columbia-Coulter Translational Research Partnership

WFI COMF!

This online system manages applications submitted to the

Columbia-Coulter Translational Research Partnership.

Existing Account

If you have accessed this system previously, you can SIGN IN with your existing log-in information at the right. If you don't remember your password, click "Trouble signing in" to create a new one.

New Account Set-Up

If you are new to this system, please create an account:

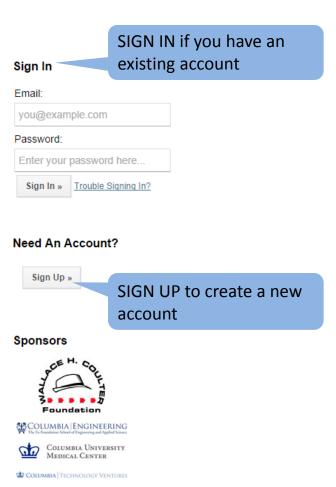
- Click the SIGN-UP button to the right.
- Follow the sign-up process. When you are done, an email will be sent to you confirming your registration.
- Click on the link in the email to finalize registration. Make sure to check your spam or junk folder in case the email ends up there.

Tips for Submitting an Application

- Save your work frequently to avoid loss due to disruptions in internet access or other technical issues.
- The last minute is a common time for internet outages, glitches in the online system, and hard drive crashes to occur. Do not wait until the last minute to submit your work!

CONTACT US

If you have any questions about the application process or the online system, please submit your questions via email to coulter@columbia.edu . You will receive a response within one business day.



Contact Information

www.bme.columbia.edu/coulter coulter@columbia.edu

INFO SESSIONS

CUMC Irving Institute, PH-10, Room 204

- Wed. Sept. 17, 4pm
- Mon. Sept. 22, 12 noon
- Wed. Oct. 1, 12 noon
- Mon. Oct. 6, 4pm

MATCHMAKING REQUESTS: Due October 1

PRE-PROPOSALS: Due December 1



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