Regents Working Group on Innovation Transfer & Entrepreneurship

Fact sheets: A preview of solutions under development
March 18, 2021

OUR MISSION IS TO

Promote the translation of UC's discoveries into useful products, services, and innovations aimed at uplifting the human condition.

Inspire the passion of our faculty and student inventors to dream big, as well as provide the problem-solving and collaborative support necessary to boldly translate those ideas into real-world solutions having societal benefit.

Pursue fair value for our intellectual property so UC can continue to grow its excellence in scholarship, research, and global impact.

GOVERNANCE

CAMPUSES

Campuses are already the centers for innovation transfer and entrepreneurship at UC. They fully own the responsibility of working with faculty inventors, cultivating relationships with licensees and investors, and converting ideas into practical applications. In the 1990s, the Office of the President recognized its centralized technology transfer office was under-resourced and too remote from the actual centers of productivity to effectively oversee operations for every campus. It gradually began to shift responsibility and authority to the campuses.

Today, we must finish realigning **responsibility**, **authority**, and **accountability** to the campuses in order to unleash UC's full latent potential. This will ensure the organizational level responsible for innovation transfer and entrepreneurship has the control and flexibility necessary to execute to its charge.

For example, for campuses with a defined strategy as well as adequate resources, expertise, and internal controls, allow them to:

Manage equity acquired from their licensing deals and incubator/ accelerator partnerships

Review and approve the legal terms of their equity and licensing contracts

OFFICE OF THE PRESIDENT (OP)

OP will continue to play a vital role in facilitating the success of UC's tech transfer enterprise by supporting and enabling the execution of campus solutions and strategies. Its best use also comes in leveraging the "Power of 10" to perform duties no one campus can effectively do on its own and in coordinating multi-campus needs.

Represent the individual and collective interests of the UC system before state and federal legislatures and regulatory bodies

Identify and disseminate best practices throughout the UC system

Provide back office support (e.g., legal and accounting) to those campuses in need

Fulfill reporting obligations to the Regents, public agencies, and grant-making bodies

Oversee the replacement and ongoing maintenance of the Patent Tracking System

Work with campuses to interpret, implement, and enforce policies

Identify the needs of the campuses and develop value propositions to meet them. For example:

- Help campuses boost programs pairing inventors with experienced mentors and entrepreneurs who can help identify potential consumer markets, raise capital, and handle the business end of commercialization activities.

- Aid campuses with emerging technology transfer programs to reach "ready-state" (i.e., having the foundational infrastructure, expertise, and functionality to, on a sustained basis, develop emerging technologies into license-ready status or spin-off companies).

Innovation Transfer & Entrepreneurship

FUNDING

PROBLEM

The **"Valley of Death"** is a metaphor for the funding gap that often exists on the journey between academic-based discovery and commercial application. Within this valley, funding is extremely difficult to acquire because

- the technology may be unproven
- there is no identified practical application
- there is no working prototype
- there is not yet a discernable consumer market

University/
Government
Funding

Private Sector
Funding

Available Funding

Valley of Death

Basic Research

Product Launch

Product Development

SOLUTION

Create a "proof of concept" fund aimed at providing the vital seed money necessary to traverse the **"Valley of Death"** and catapult promising early-stage technology to license-ready status or the formation of spin-out companies.

Awards from this Fund will be available on a matching basis. This shared-risk / shared-responsibility approach incentivizes applicants to self-regulate how much they request, as well as the level of due diligence they must invest in assessing the commercial viability of a new technology.

Recognizing campuses with emerging tech transfer enterprises may not currently have adequate local resources to draw these matching funds, phasing-in the 50/50 split over a 7-year period is a matter of fairness.
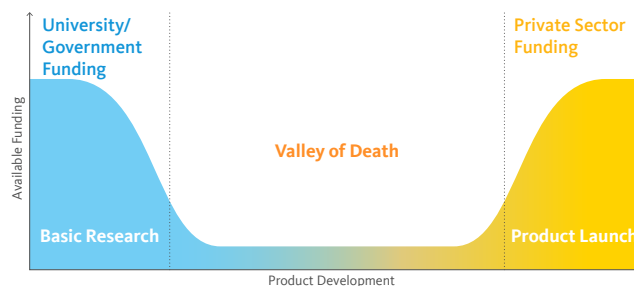
By revenue	Years 1–3	Years 4–6	Years 7 and after
4 largest campuses	50/50	50/50	50/50
Next 3 largest campuses	30/70	40/60	50/50
3 smallest campuses	10/90	30/70	50/50

% campus / % fund

On average, it appears an annual outlay of $6.5 to 7 million would be needed to fully fund the UC system's "proof of concept" needs.

Incentivize participation by persons who have been historically under-represented in the areas of translational research and entrepreneurship.

In addition, the Working Group is currently conducting a needs assessment with the objective of aiding campuses with emerging technology transfer programs to reach "ready-state" (i.e., having the foundational infrastructure, expertise, and functionality to, on a sustained basis, develop emerging technologies into license-ready status or spin-off companies).

Innovation Transfer & Entrepreneurship

POLICY

PROBLEM

The four core policies governing UC's innovation transfer enterprise:

- Equity
- Intellectual Property
- Conflict of Interest
- Conflict of commitment

- Many have not been materially revised since the 1990s

- When policies are too heavy-handed and prescriptive in their desire to keep bad things from happening, they can keep good things from happening, too

- Deters creativity, innovation, and risk taking. Some campuses have adopted the mentality of "I'll just do what's necessary. It's easier to ask for forgiveness than to seek permission."

- Establishing standards in policies are necessary because they can promote uniformity and set a "basement" for quality. The problem is when the basement becomes the ceiling, thereby preventing enterprising campuses from achieving their ambitions.

SOLUTION

A policy revision panel will be established to update and modernize our core governing policies so they fully address today's business needs and climate. The revised policies will provide general guide rails to manage risk, but allow users maximum flexibility to innovate solutions to meet local objectives. These revised policies will focus on guiding actions toward achieving desired outcomes, rather than try to manage to "zero risk".

Composition of the panel:

- Academic Senate
- Office of the President
- Regents
- UC campus technology transfer offices
- Best-in-class technology transfer universities from around the nation
- Private industry representatives with extensive experience in university tech transfer and demonstrated commitment to UC

The Regents Working Group, in collaboration with leading tech transfer campuses, will provide model language and principles to help inform the work of the Policy Revision Panel.

To ensure our policies don't become stale and continually reflect UC's evolving needs and priorities, they will be reviewed and, if warranted, updated every five years.

Innovation Transfer & Entrepreneurship

CULTURE/REPUTATION

GOALS

- Actualize the fact UC values translational research, innovation, and entrepreneurship on par with other UC enterprises and fields of scholarship and research

- Broaden and diversify university research in the 21st century

- Add a new faculty recruitment and retention tool

HOW

Consistent with UC's shared governance principle, collaborate with the Academic Senate, the Office of the President, and the Chancellors to pursue the following:

- Adding innovation and entrepreneurship as considerations in promotion & tenure decision-making

- Explicitly state that leaves of absence can be used for innovation & entrepreneurship (I&E) pursuits

- Building a coordinated program to recognize I&E at the campus, presidential, and regental levels

- Launching a re-branding campaign to address UC's reputation as being a difficult partner, unable to work at the speed of business, and overcompensating for fear it might make a mistake.

> The conversion of academic-based discoveries into practical, "real world" applications can often make the public better understand the added value of taxpayer-funded universities and basic research.

PATENT TRACKING SYSTEM (PTS)

UC must replace and modernize its PTS system. Rather than debate the merits of a "centralized" vs "de-centralized" approach, we propose a hybrid solution wherein UC builds an integrated platform serving the comprehensive needs of smaller and mid-size campuses, but allowing larger campuses (with locally-built, alternative systems) to "plug-in" and download information needed by the Office of the President to discharge its reporting and oversight duties.

The Patent Tracking System serves as the "central nervous system" handling many of the tech transfer ecosystem's most critical functions:

- Marketing and business development
- Patent prosecution
- Intellectual property management
- Accounting and revenue distribution
- Stakeholder and client relationship management

Born of frustration, an increasing number of campuses are abandoning the PTS in favor of their own local IT solutions.

- UCLA
- UCSD
- UC Davis
- UC Riverside

Challenges

These challenges have been known for more than 20 years and have only served to compound user frustration and increase error rates:

- poor data structure and architecture
- time-consuming and sometimes inaccurate invoicing
- lack of interoperability with other UC system wide databases
- cumbersome procedures
- overly complex and outdated revenue distribution and reimbursement functionality
- antiquated technology causing undue and unnecessary delays in actual computing and retrieval of data

New Opportunity

Capture "meta data" from all UC-sponsored intellectual property (IP) to open doors to new opportunities, including:

- Giving potential investors, licensees, and partners (including our own OCIO) a powerful new tool to search for and find investable IP
- Creating "UC patent pools" allowing IP assets that—by themselves—may never be licensed, but when bundled with other complementary IP could become appealing

PERFORMANCE METRICS

Public Impact

- Job creation, new industry formation, economic stimulus

- Societal good (e.g., break-through therapies for health maladies, reducing carbon emissions, efficiencies in food production, etc.)

Short-horizon returns

- Licensing agreements and the resultant revenue

- Start-up generation and the return from exits

Long-horizon returns

- Philanthropic donations

- Capital improvement project funding

- Scholarships, endowed chairs, program funding

- Sponsored research (corporate, foundations, and other non-profit)

Customer Satisfaction

- Faculty inventors and founders

- Our campuses (for Office of the President)

- Licensees, investors and private sector partners

Contributions to Diversity and Equal Opportunity

- The participation of women, persons with disabilities, and underrepresented minorities in the arenas of translational research, innovation, and entrepreneurship.

> **"If you can't measure it, you can't improve it."**
>
> **Dr. Peter Drucker**
> *The father of modern organizational management*