

Stanford | Office of Technology Licensing

MCHRI WEBINAR
BRIDGING THE INNOVATION GAP

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+

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Agenda

1. **About Us**
2. Invention Evaluation and Marketing Process
3. IP and Licensing Strategy
4. Technology Commercialization Pathways
5. Success Stories and Case Studies



OTL's



To promote the transfer of Stanford technology *for society's use and benefit* while generating unrestricted income to support research and education.

Agenda

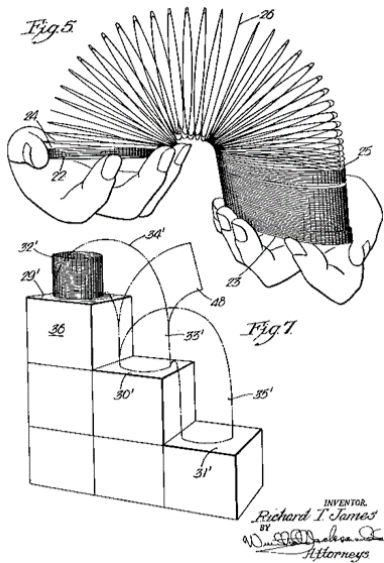
1. About Us
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Types of Intellectual Property

PATENTS

Protect inventions.



COPYRIGHTS

Protect works of authorship.



TRADEMARKS

Protect brands.



TANGIBLE RESEARCH PROPERTY

Protect physical items.

Who owns the invention?

- SU18 - Stanford University Patent and Copyright Agreement
- Patent Policy- University takes title to all inventions created with **more than incidental** use of university resources, or in the course of your Stanford responsibilities
- Copyright Policy - University takes title to copyrightable works created with **significant** university resources
- Bayh-Dole Act - Universities can elect title to inventions that come from research sponsored by the U.S. Government as long as they follow certain rules.



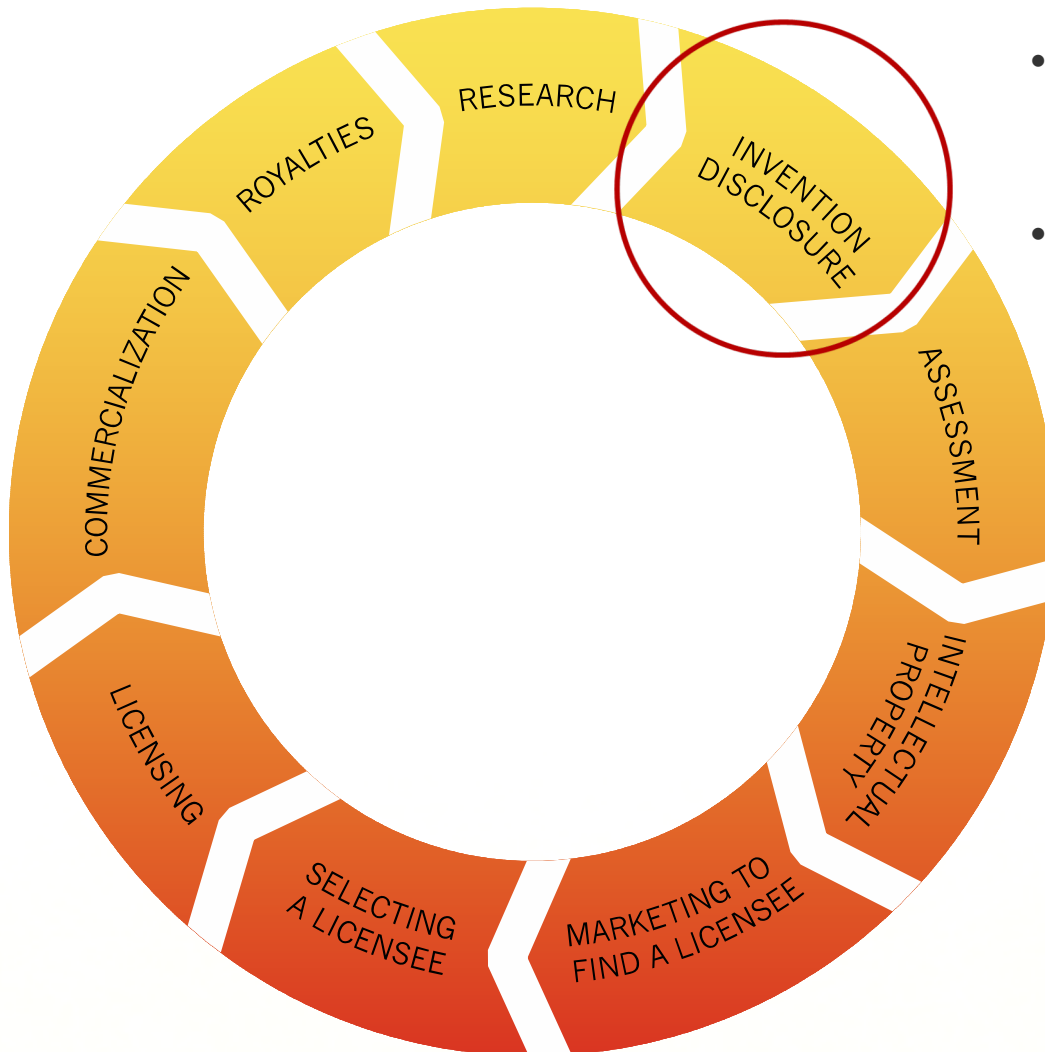
Birch Bayh

Bob Dole

What does the OTL do?



Invention Disclosures



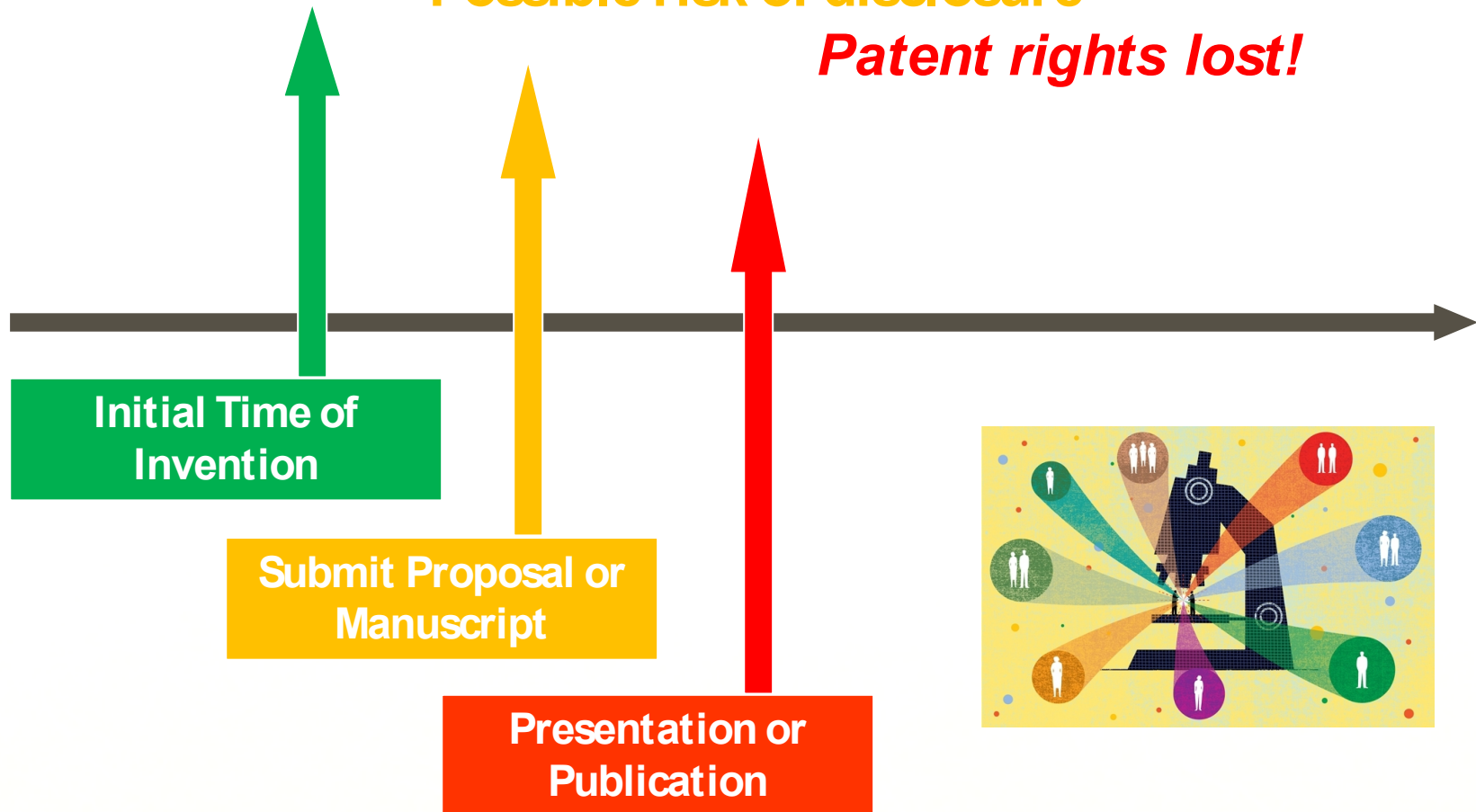
- Disclose to OTL BEFORE public disclosures (abstracts, talks, publications).
- Timing can affect patent rights!

When should an invention be disclosed to OTL?

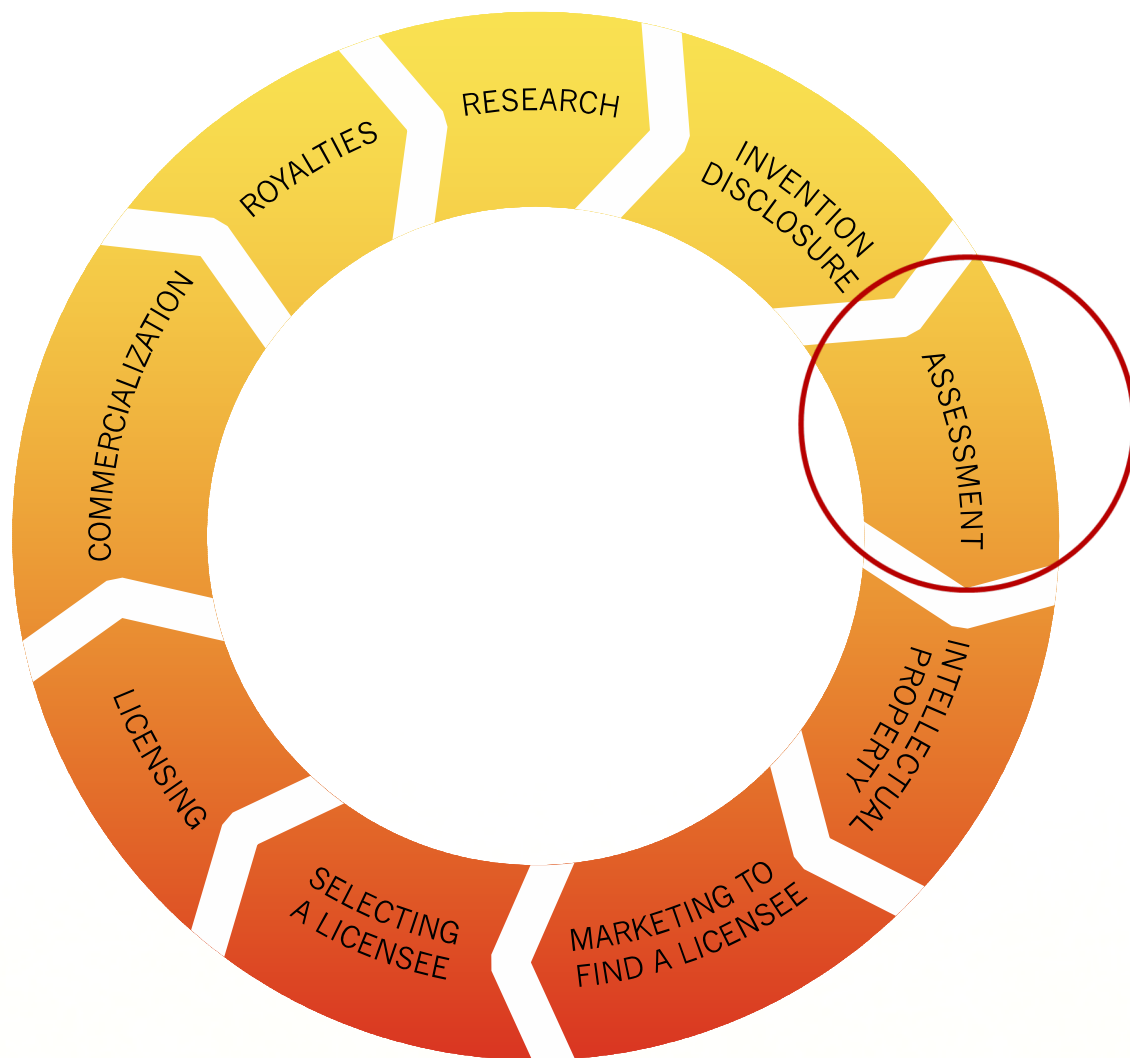
Worldwide rights intact & time for evaluation

Possible risk of disclosure

Patent rights lost!



Assess Invention & Develop Licensing Strategy



- Sponsor obligations?
- Co-owners?
- Technology?
- Commercial Potential?
 - Product or Service?
 - Market Need and Size?
 - Hurdles to Overcome?
- Protectable? Enforceable?

WHY go through all this?!

Growing Patent Expenses

OTL Patent Expenses (FY2006-FY2019)

Fiscal Year	\$\$\$ Amount
2009	\$6,266,000
2010	\$7,060,000
2011	\$7,549,000
2012	\$8,713,000
2013	\$9,326,000
2014	\$9,806,000
2015	\$9,580,000
2016	\$10,159,000
2017	\$10,951,000
2018	\$11,606,000
2019 (up to 7/31/20)	\$13,535,503

~60% reimbursed by licensees

Don't always need to file a patent – TRP, data/know-how and copyright licenses

Protect Intellectual Property



Multi-year Process

- File patent application
- Prosecute to grant
 - Term- 20 years from the date of filing
- Pay maintenance fees
- Enforce

Market the Invention



Inventors

- Conferences
- Investor meetings

OTL

- Email Campaigns
- OTL TechFinder Portal
- VC and Company Meetings
- 1:1 Partnering at BIO, JP Morgan, etc
- Social Media




Stanford Techfinder

To search for more Technologies available for licensing: techfinder.stanford.edu

Stanford University

OFFICE OF TECHNOLOGY LICENSING



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Search by ▾ Sort by ▾ Precision ▾

1,667 results (0.04 seconds)

Steerable Spherical Wheel Based Dexterous Hand for Object Grasping and Within-Hand Manipulation S20-043

The Salisbury lab has developed a dexterous robotic hand with active fingertip surfaces for grasping and manipulation. Spherical or oblate graspers exhibit two coupled degrees ...

[J Kenneth Jr Salisbury](#) | [Shenli Yuan](#) | [Object Manipulation](#)

Molecular targets for modulation of dissociative and associative states S20-338

Stanford researchers in the Deisseroth Lab have discovered molecular targets and brain-circuit dynamics underlying dissociation in the brain. The targets enable the modulation of dissociation ...

[Karl A Deisseroth](#) | [Isaac Kauvar](#) | [Sam Vesuna](#) | [Dissociation \(Psychology\)](#) | [Posttraumatic Stress Disorder](#) | [Epilepsy](#)

Device to retract soft growing robots S19-431

Stanford researchers at the Okamura Lab have prototyped a new retraction device that can reverse growth of a soft growing robot without undesired buckling. This ...

[Allison Okamura](#) | [Laura Blumenschein](#) | [Nathan Scot Usevitch](#) | [Buckling](#) | [Preprint](#)

Carbonate-Promoted High Rate Carboxylation Process Design S20-035

The Kanan group has designed a process and reactor for continuous, high-yielding, rapid carboxylation of organic monomers necessary for industrial production of performance-advantaged polyesters. Carbonate ...

[Matthew W Kanan](#) | [Aanindeeta Banerjee](#) | [Amy Frankhouser](#) | [Carboxylic Acid](#) | [Monomer](#) | [Polyester](#)

Tags

- SELECT ALL
- Protein 122
- Antibody 97
- Magnetic Resonance Imaging 95
- DNA 92
- Algorithm 78

Add ...

More ▾

Categories

- SELECT ALL
- Engineering 1,023
- Biology 1,019
- Chemistry 1,015
- Engineering Disciplines 1,012
- Materials 994

Add ...

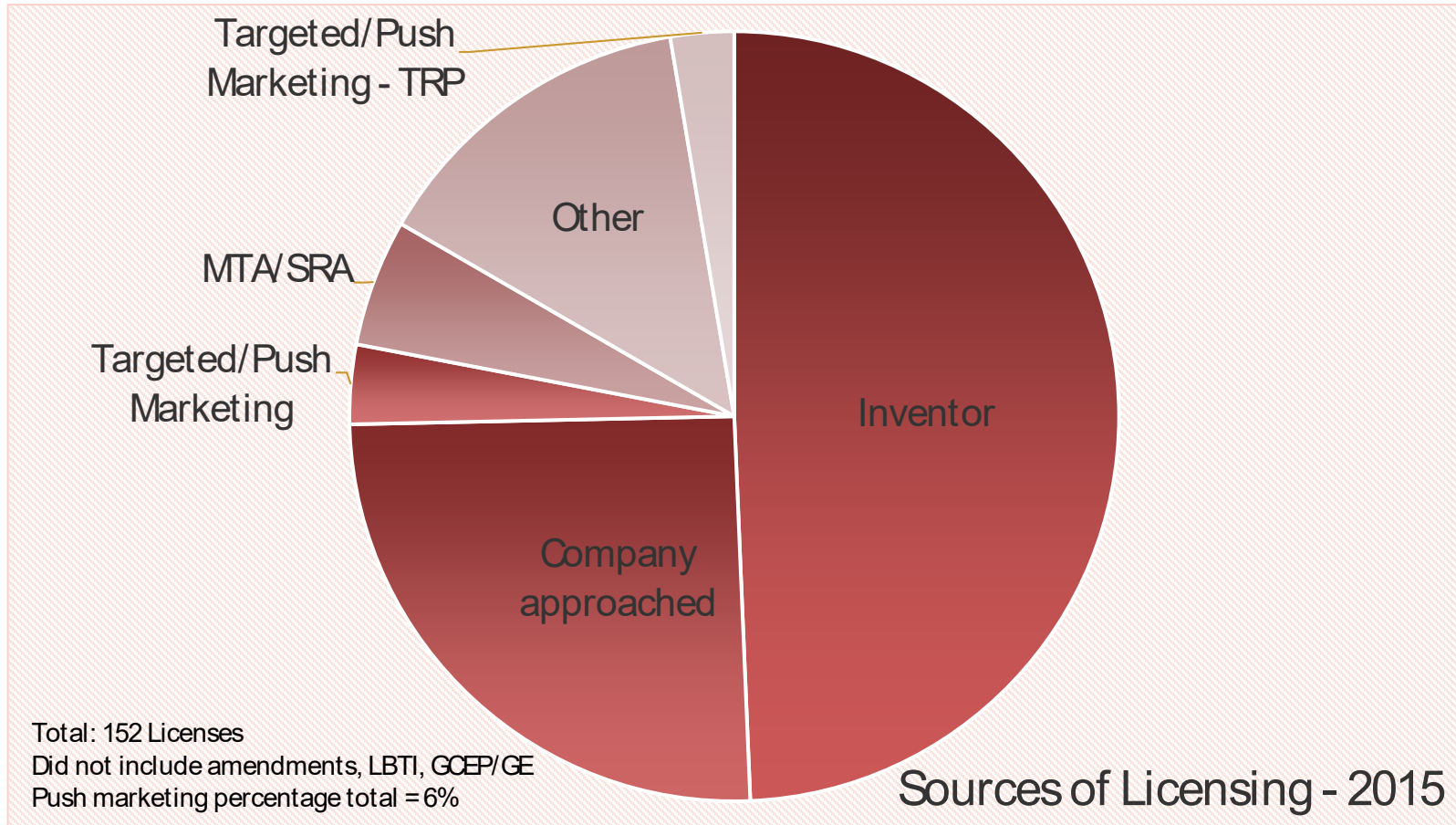


Search by:

- Tags/Keywords
- Collections
- Categories
- Inventors

Current Reality

- Finding a licensee is not easy



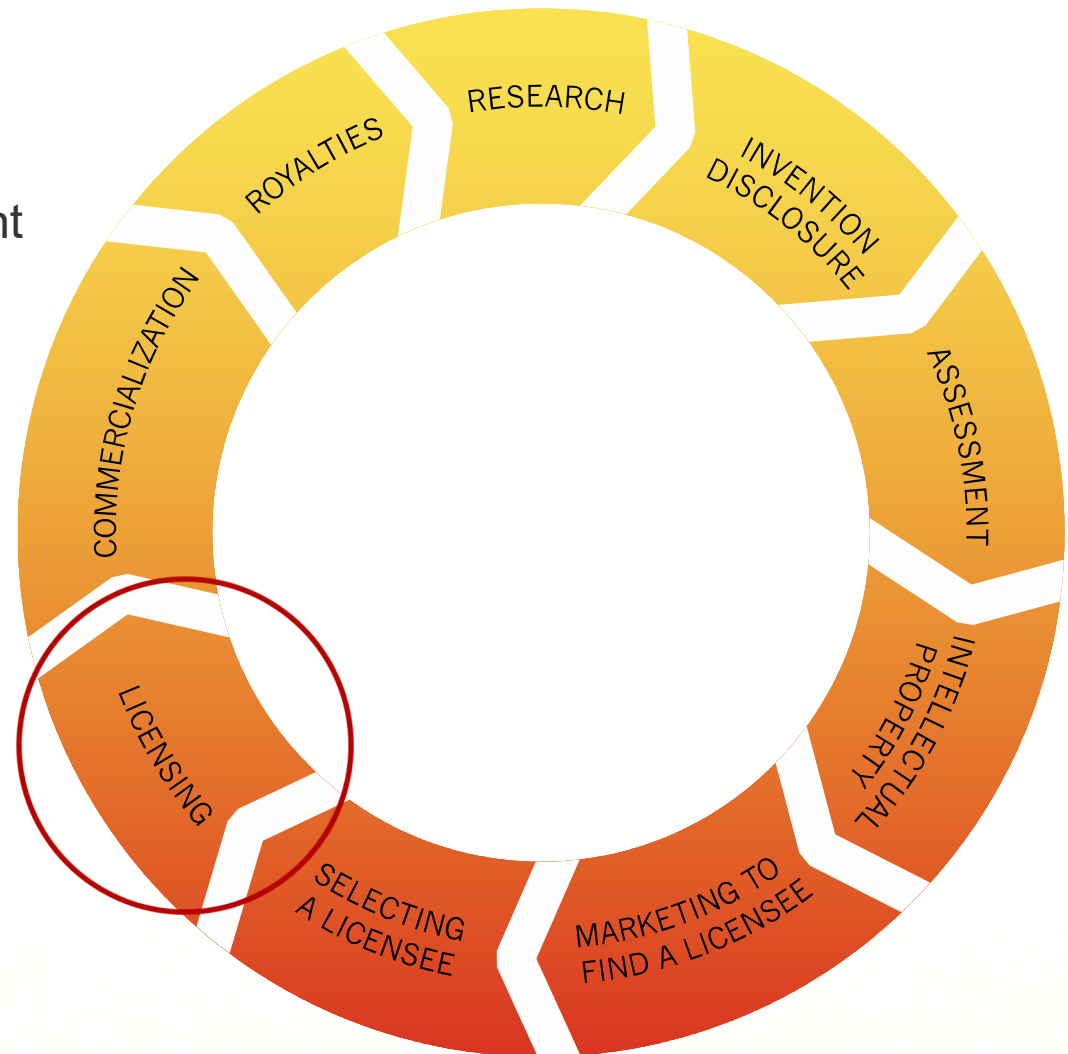
Select the Licensee(s)

- Best fit for the technology?
- Sufficient resources?
- Startups?
 - Inventor passion
 - Focused, yet nimble
 - Job creation



Negotiate License Terms and Contracts

- Goal:
 - Mutually beneficial relationship (up to 20 yrs)
 - Ensure diligent development
- OTL Responsibilities:
 - Negotiate term sheet
 - Negotiate contract
 - Enforce compliance

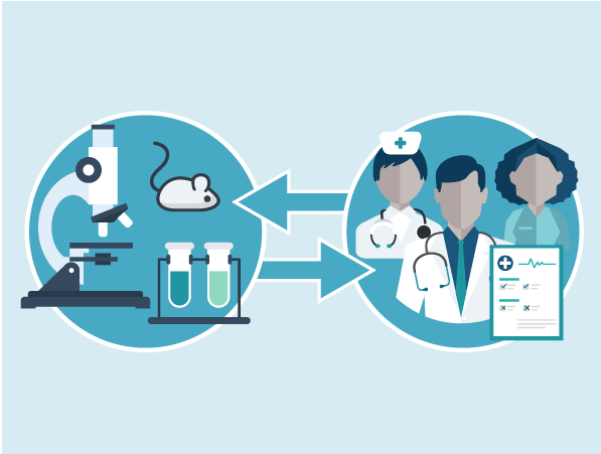


What is in a License*?

Financial Terms	Non-financial Terms
License issue fee	Field of use
Annual minimum payments	Non-exclusive vs exclusive
Earned royalties	Technology rights
Equity	Sublicensing
Milestones	Development milestones
Reimbursement of patent costs	Legal issues

*Sample Agreements: http://otl.stanford.edu/industry/resources/industry_res.html?headerbar=2

Licensee commercializes



Royalty Collection and Distribution

OTL collects & distributes royalties:

- 15% to OTL; then:
 - 1/3 to Inventors
 - 1/3 to School
 - 1/3 to Department



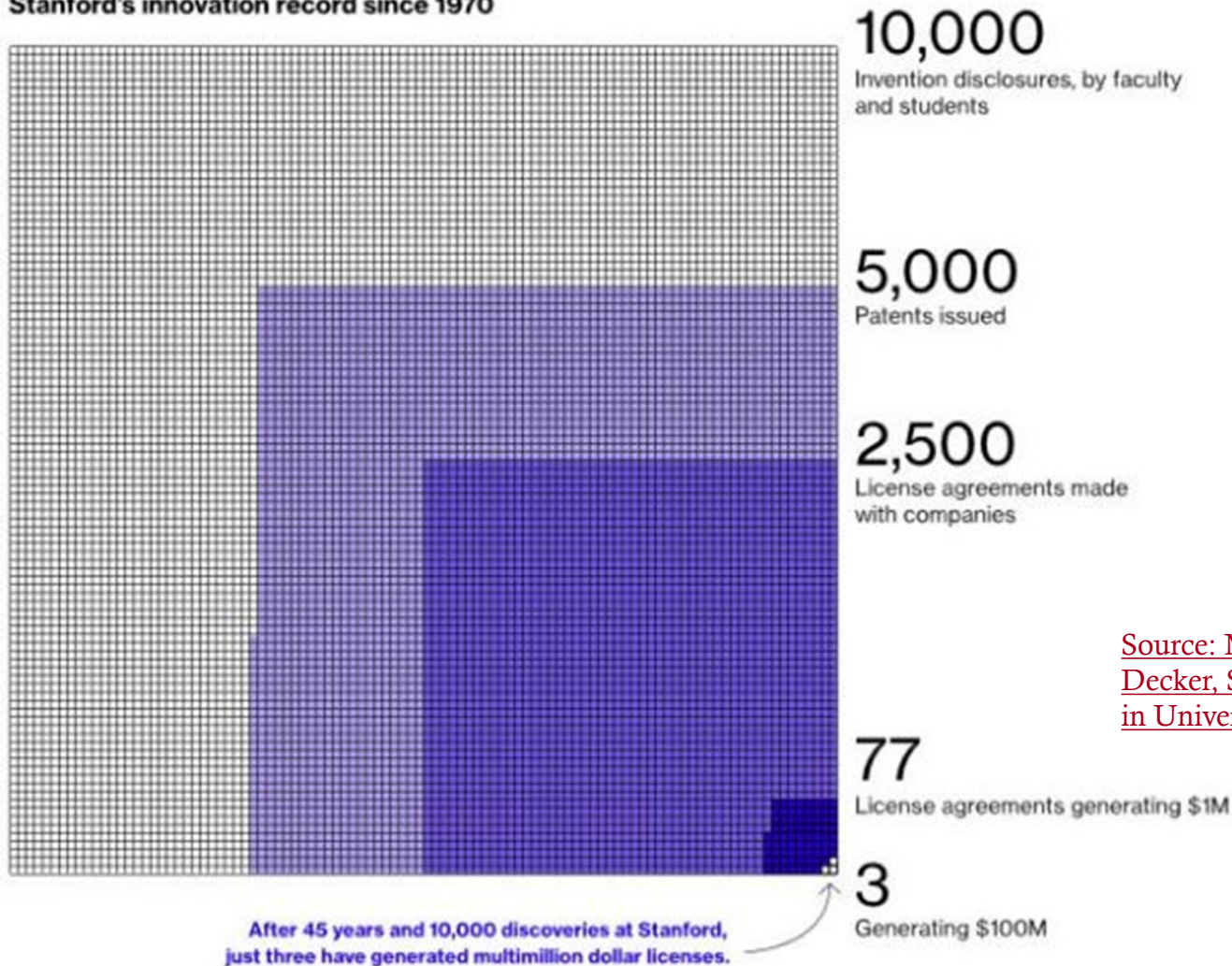
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5. Success Stories and Case Studies



Most Income Comes from a Few Dockets

Stanford's innovation record since 1970



Source: Merrill, D., Migliozi, B., & Decker, S. (May 24, 2016). *Billions at Stake in University Patent Fights*. *Bloomberg*.

Our Licensing Approach

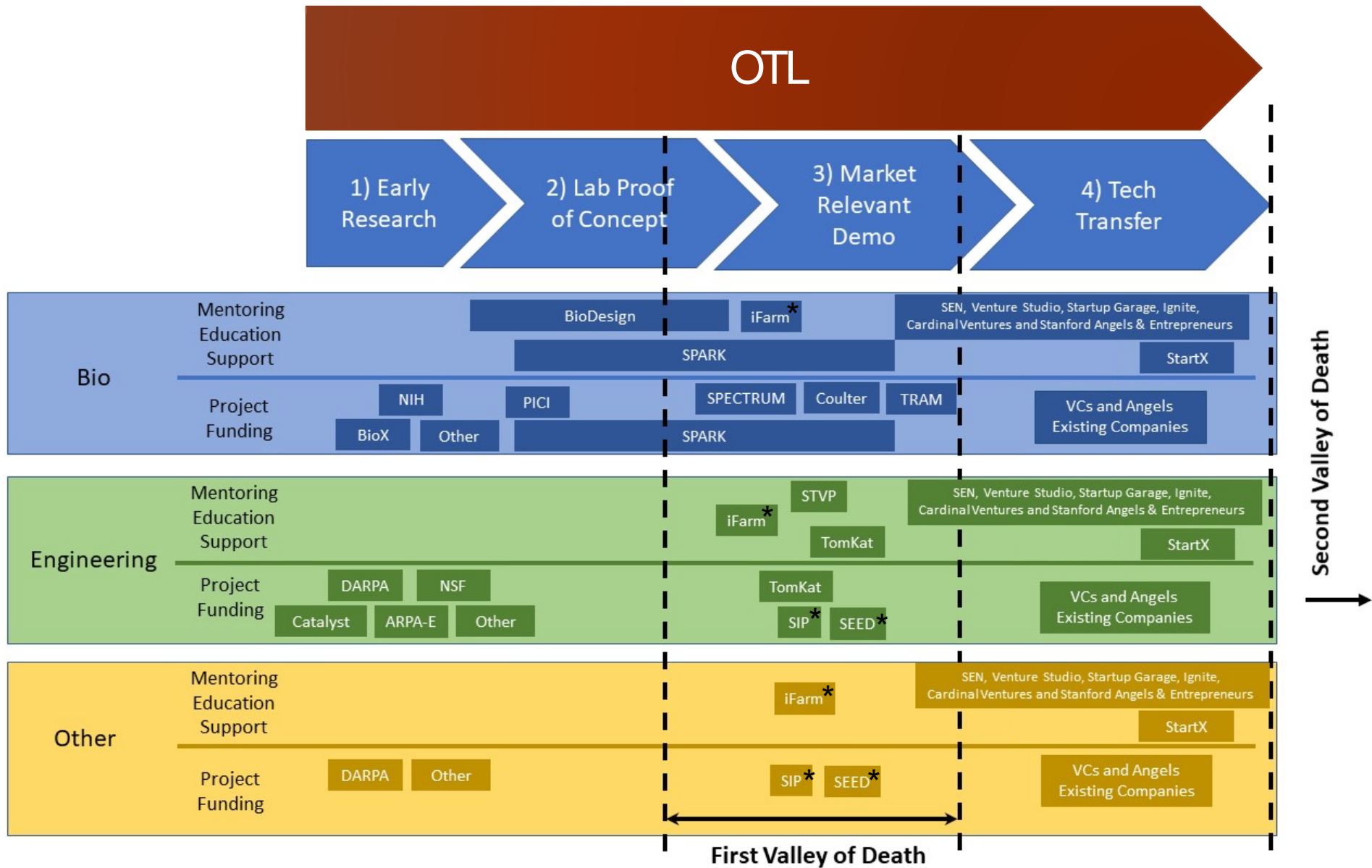


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Research to Commercialization at Stanford



*Inactive Program

Stanford University

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FY2020 - Year in Review

\$114MM Licensing Revenue	1,008 : More than \$100K in royalties - 42 : More than \$1MM in royalties - 9 Technologies Generated \$	3,685 Active Technologies
119 Licenses/Options	Stanford FY2020 Fast Facts Office of Technology Licensing	595 Invention Disclosures
22 Startup Companies	2,030 New Industry Research Agreements	390 Total Sponsored Research Agreements
		2,117 Active Issued U.S. Patents
		264 New U.S. Patents Issued

- [CLICK HERE](#) to Read OTL Annual Reports (FY2000-2019)

Notable Stanford Inventions

1 Mid-sized
Company



Functional Antibodies (1984)



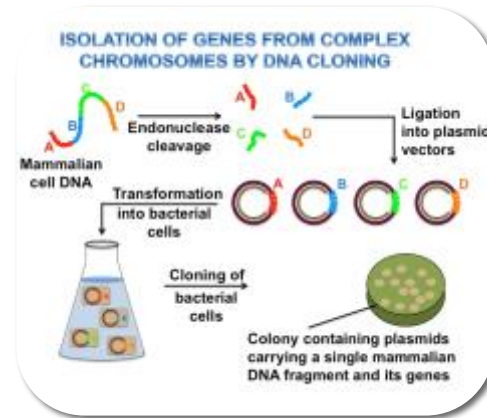
1 Large
Company

FM Sound Synthesis (1971)

1 Startup

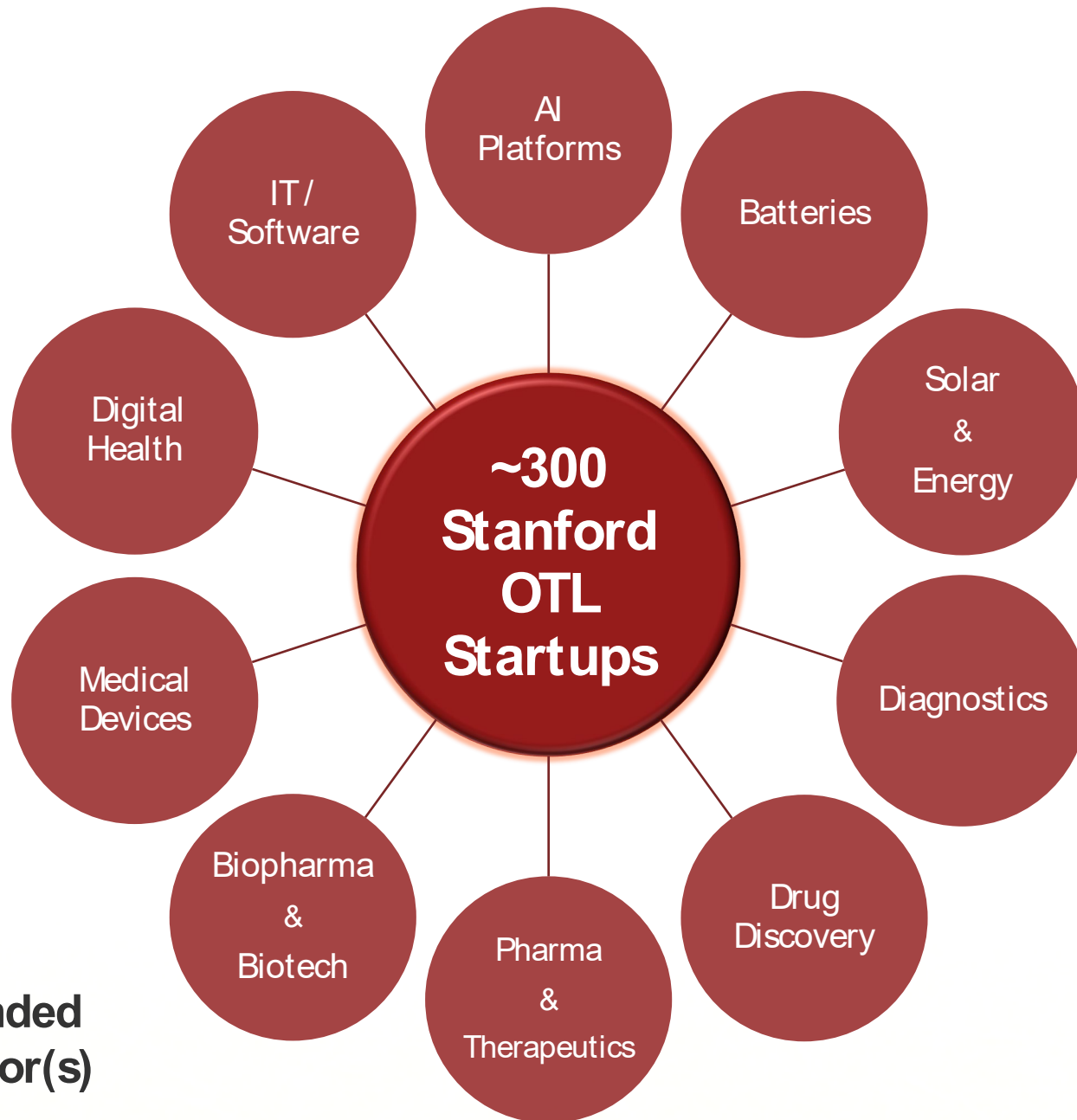


Google (1996)



>400
Companies

Recombinant DNA (1974)



**79% Founded
by Inventor(s)**

Featured OTL Startups



Gilead to Acquire Forty-Seven for \$4.9B

Gilead gains Forty Seven's investigational immunology therapy in multiple clinical studies for diseases including Myelodysplastic Syndrome, Acute Myeloid Leukemia and Diffuse Large B-Cell Lymphoma

(March 02, 2020 Press Release)



Grifols to Acquire Remaining Alkahest State for \$146M

Grifols agreed to buy the remaining portion of Alkahest after its initial \$37.5M investment. Alkahest currently has Phase II trials in Alzheimer's, Parkinson's, age-related macular degeneration, inflammatory disease and end-stage renal disease.

(September 08, 2020 SF Business Times)



How This Multi-Million Dollar Startup Could Make it Easier to Identify the Next Pandemic

With \$165M from a fresh Series B funding round and \$255M funding in total, Karius can take a single blood sample and test for more than 1,400 pathogens, including viruses, bacteria and fungi

(February 25, 2020 Forbes)

Contracts at Stanford: Overview

OTL – All MTAs, IIAs, CDAs and licenses related to invention disclosures. Strategic collaboration/alliance agreements and any other agreements with complex out-of-box IP terms

Office of Sponsored Research (OSR)

- Government, Non-profits Sponsored Research Agreements
- Subawards
- Subcontracts
- Part of ORA (Russell Brewer)
- OSR Pre-Award: Mich Pane
- Post-Award: Tim Reuter

Industrial Contracts Office (ICO)

- Industry Research-Related Agreements
- Part of OTL, headed by Karin Immergluck
- Industrial Contracts Office: Glennia Campbell, Director

Clinical Research Administration

- Clinical Trial Agreements
- Part of Research Management Group (Kathleen Thompson)
- Contracts Group: Derrick Lin
- Budget Group: Erin Romer

Procurement Contracts

- Agreements involving purchases for goods and services
- Funds going OUT
- Part of Purchasing
- Contracts Group led by Troy Sutton

THANK YOU!

Any Questions?



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