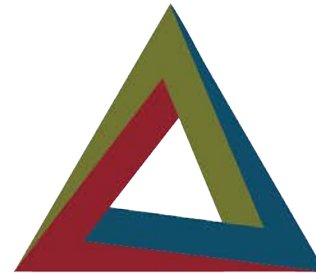


SBIR & STTR Potential Encumbrances

PHASE I APPLICATIONS



APIOix
Innovation Transfer

About SBIR/STTR Assistance

The Nevada Governor's Office of Economic Development provides assistance to companies in the preparation and submission of SBIR/STTR proposals

The goal is to increase the number of proposals submitted and grants awarded under the SBIR/STTR program to Nevada technology-based small businesses

APIO Innovation Transfer (APIOiX) works in partnership with UNLV's SAGE program (<https://www.unlv.edu/econdev/sagesouth>) to assist technology-based small businesses (<https://apioix.com/sbir-assistance>)

- Assessment of the business concept
- Guidance for registration of the company
- Review and input on project pitches and proposals
- Assistance in submitting the proposals

About APIOiX

Programs, Services, and Solutions to Accelerate Innovation Ecosystems

APIOiX accelerates innovation through business development, training, and technical assistance to innovators and inventors at universities, small businesses, and government entities across the globe.



Eligibility for SBIR/STTR Funding

“America’s Seed Fund”

Technology based

Diverse portfolio

Commercial application

Non-dilutive funding

STTR requires
partnership with a
research institute

The Nation’s largest source of early stage/high risk funding for start-ups and small business

- In the words of program founder Roland Tibbetts: "to provide funding for some of the best early-stage innovation ideas; ideas that, however promising, are still too high risk for private investors, including venture capital firms."

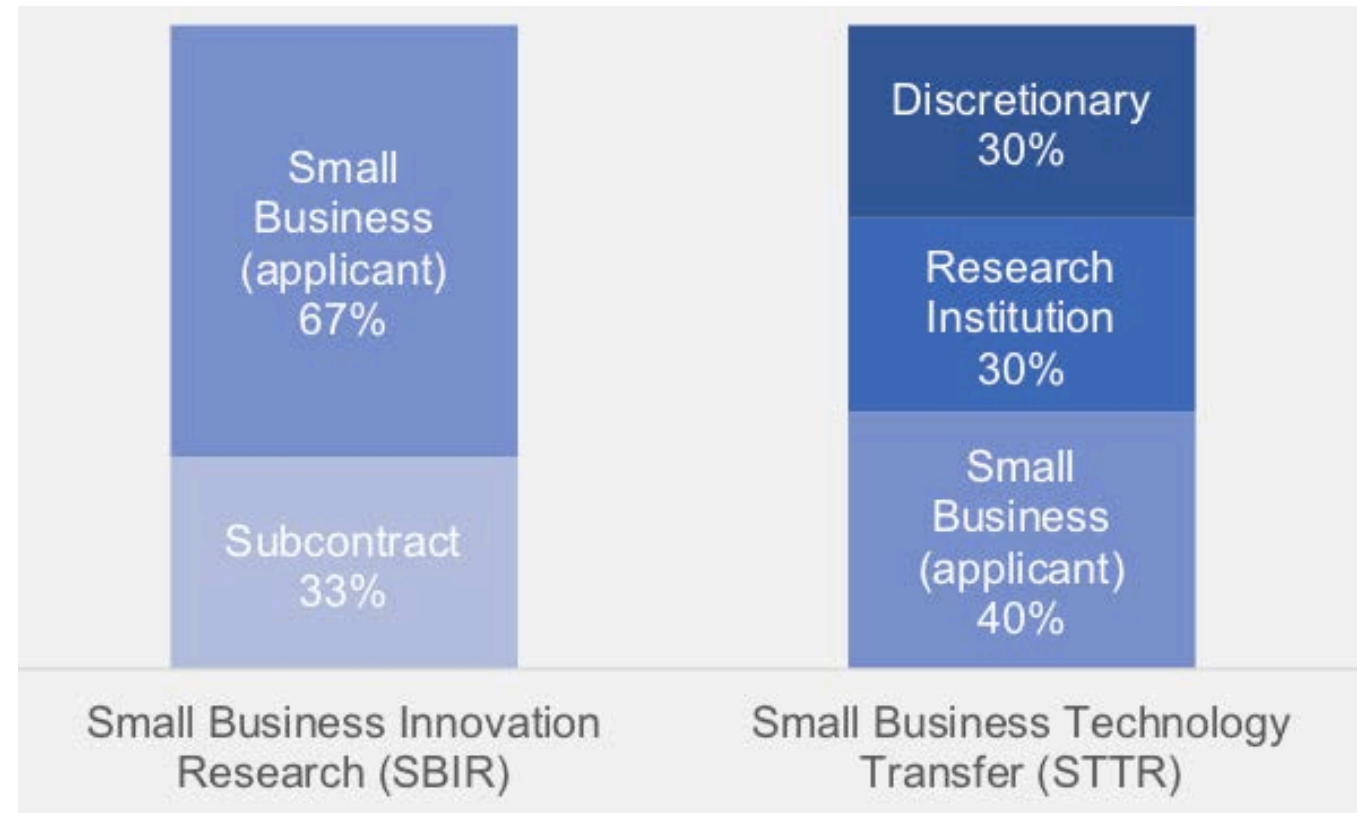
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Small Business Technology Transfer Program (STTR)

An STTR project requires the small business, to be teamed with a non-profit research institution

- The applicant is always the small business
- However, the PI for the project can be from the research institution
- The small business and the research institutions must be US based
- The narrative should clearly state what work is done where
- Each entity will need their budgets and budget justifications entered separately



Sources of Potential Encumbrances and Conflicts

- Intellectual property
- Software development
- Tangible materials
 - Material transfer agreements
- Contracts
- University faculty entrepreneurs



Intellectual Property

Bayh-Dole applies – ownership of inventions resulting from federally funded research projects

Patents vs. copyrights vs. knowhow (trade secrets)

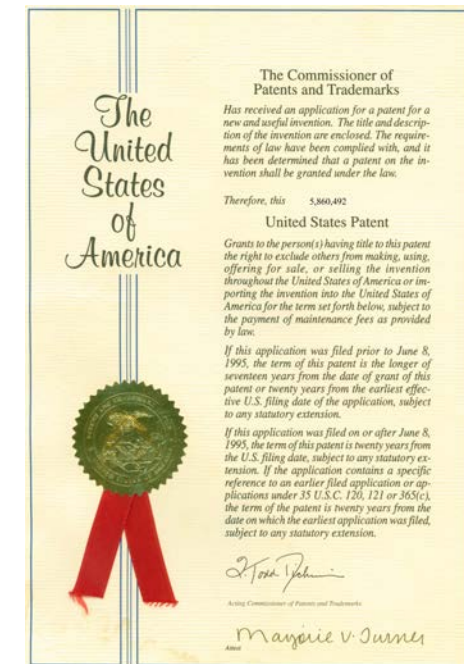
Location of the work being conducted

- Internally at the company
- At another company (collaborator)
- At a university or research institution

Patents

- Defining existing (background) intellectual property
- Improvements
- Determination of inventors and owners

Joint ownership of intellectual property



Software development

Subject to copyright protection

- Is copyrighted by virtue of being created – fixed in a tangible form
- Register your copyright, <https://www.copyright.gov>

Source code versus object code

- High level programming language vs machine language
- Human generated and understandable vs compiled

Open-source software vs open platform

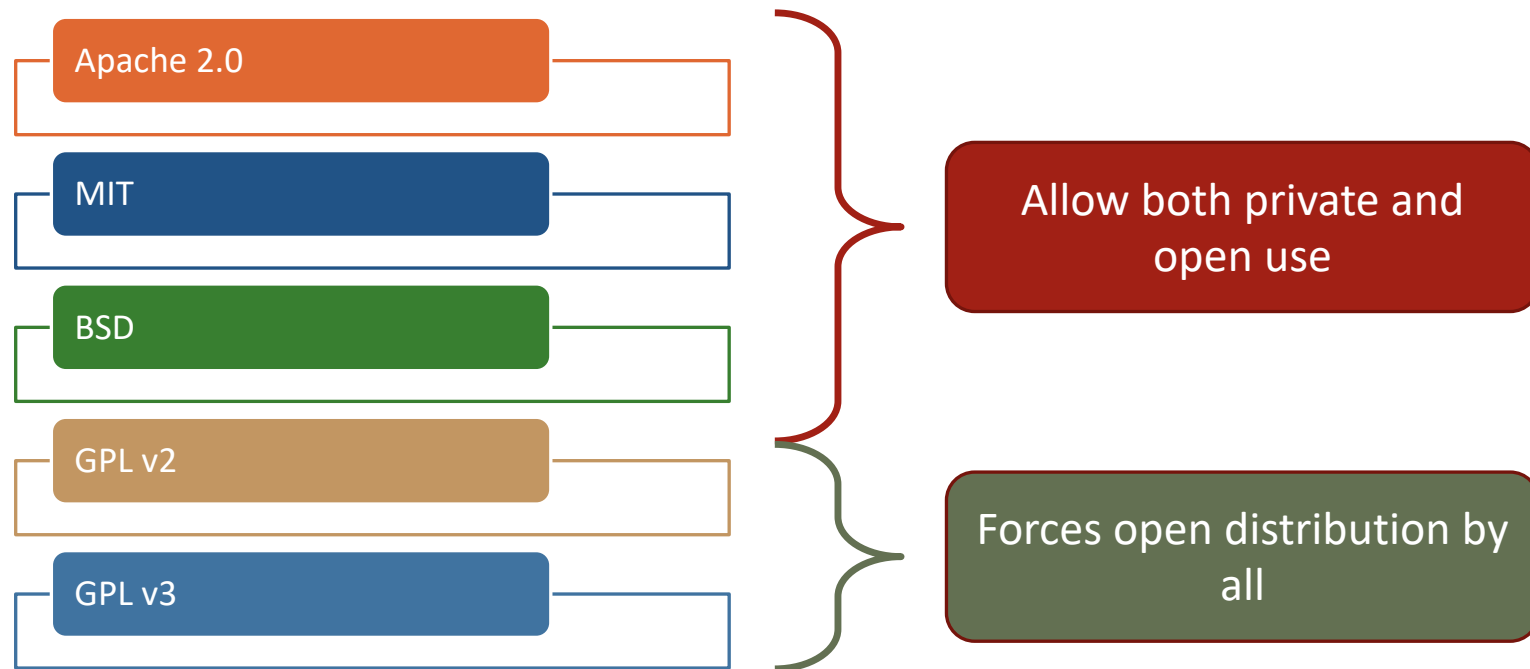
- Understand the permissions, restrictions, and conditions of the license
 - Modify/distribute/use
 - Disclosure/copyright notice/changes
 - Liability/warranty

Software Development



Software Development

Where are you getting open-source code?



Tangible Materials

Biological materials, chemicals, data...

- Ownership
- Proprietary
- Right to use the tangible materials
 - May be limited
 - Penalties for non-authorized use of materials
- Nature of the data
- Completeness of the data
- Usability of the data



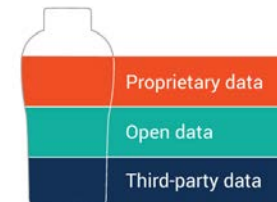
STUDY OF ALZHEIMER'S DISEASE USING KNOCK IN MOUSE MODEL

PRESENTED BY:
LAW CHOON YIK
SATHIAVANI
TAN KIAN LEONG
WONG CHING YEE CHRISTIN (0322752)



(Shreekrishna, 2008)

Bringing data together opens new ways of looking at information and making use of it.



<https://www.ontotext.com/blog/data-daiquiri-the-power-of-mixing-data/>

Contracts

License/option agreements

- License in – commitment from the licensee
- License out – conveyance of rights

Materials transfer agreements and data use agreements

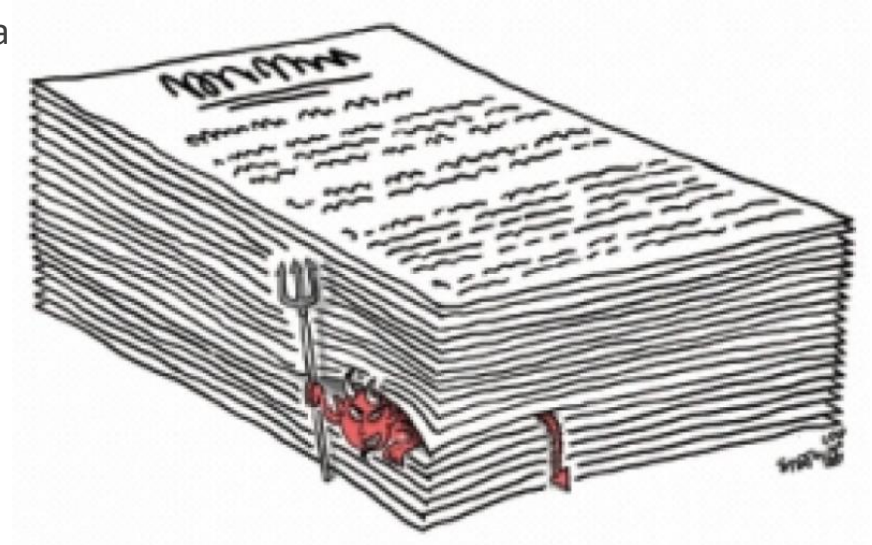
- Spell out the obligations and responsibilities of the party receiving the materials/data

Consulting agreements

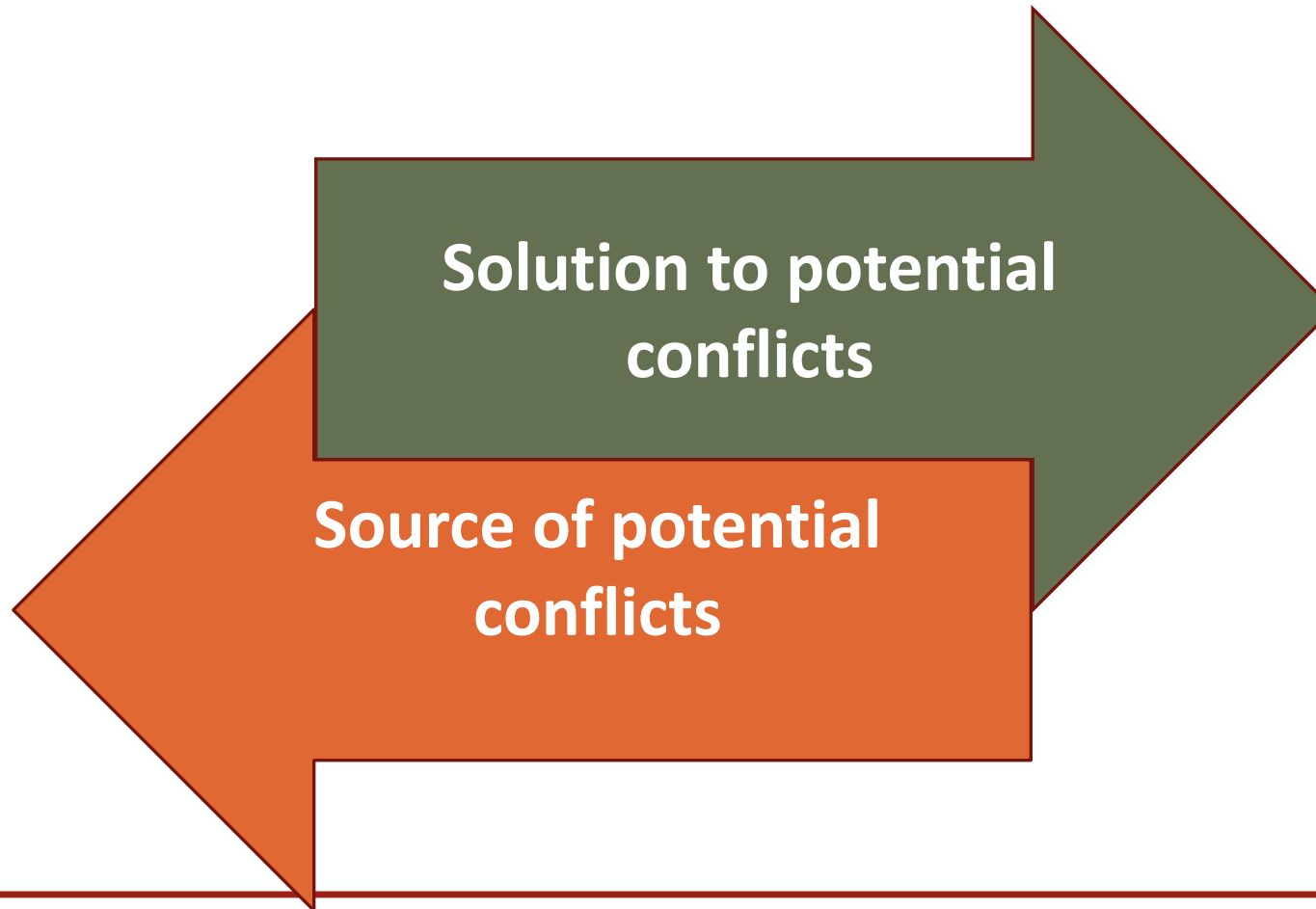
- Work for hire

Collaboration/sub-award agreements

- Commitment
- Scope of work
- Confidentiality
- Ownership of intellectual property, results, data, materials...
- Rights to use intellectual property, results, data, materials...
- Rights to publish (if you're working with a university or a research institution)



Contracts



University Faculty Entrepreneurs

Compliance with conflict of interest/commitment policies

Rights to data included in the proposal

Students working on the project

University lab / company lab

Ownership of materials and data

Contractual relationships

Need for transparency

Before you submit your proposal

Do you have rights to:

- Intellectual property
- Data
- Materials

Address contracting issues

Make sure employment agreements are in place

Anticipate future entanglements

Educate researchers

There is intellectual property associated with a proposal

Resources

APIOiX Small Business and Technical Assistance: <https://apioix.com/sbir-assistance>

- Provide general information and email link to obtain additional information

SBIR / STTR Tools & Resources: <https://apioix.com/tools-resources>

- Links to finding grant solicitations, examples of successful proposals (Phase I, Phase II, Fast Track), NSF Project Pitch rubric, budget templates for NIH and NSF Phase I proposals, budget justification templates for NSF and NIH

APIOiX Learning Center: <https://apioix.com/learning-center>

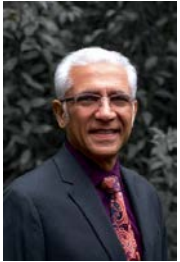
- Access to presentations on SBIR/STTR topics such as budgeting basics, subcontracting, how to write a winning proposal, basics of customer discover, and agency specific requirements.

SBIR presentations and slides: <https://www.sbir.gov/tutorials/accounting-finance/>

Salary validation: https://www.bls.gov/oes/current/oes_nat.htm#11-0000

NIH annotated SF424: https://grants.nih.gov/grants/ElectronicReceipt/files/Annotated_Forms_SmallBus_forms-e.pdf

Thank You



Arundeeep S. Pradhan, MS Pharm Ad., RTTP has been engaged in technology transfer for over 30 years; was at the forefront of creating the biotech burst in Salt Lake City; helped develop the first biotech roadmap for Colorado; and, helped create the first biotech incubator and the first translational research development center in Portland, Oregon. Mr. Pradhan served on the AUTM Board, was the AUTM President in 2009, and AUTM Foundation President and Board Chair in 2011. He was the interim CEO of a research tools startup and currently serves as the president of Apio Innovation Transfer (APIOiX) and as the CEO and the vice-president for business development of Practical Biotechnology, an oncology therapeutics startup. Mr. Pradhan managed technology transfer offices at the University of Utah, Colorado State University Research Foundation, and Oregon Health and Science University. He continues to work with clients across the globe. arundeeep@apioix.com



Ray Wheatley, MS CLP(E) is former Director for Technology Commercialization in the Office for Technology Development at the University of Texas Southwestern Medical Center, retiring in 2015 with 31 years of service. Mr. Wheatley and his staff evaluated over 2,500 new invention disclosures which led to more than 650 issued US patents and hundreds of foreign patents. These efforts resulted in more than 900 negotiated option agreements, license agreements and intellectual property management agreements generating more than \$178 million in license revenues. In addition, over 30 start-up companies were created. He has worked with US and foreign companies, including major pharmaceutical companies, venture capital firms and leading medical device manufacturers. He has been an invited speaker at many national and international meetings and has spoken on a variety of topics, most notably on negotiation skills and advanced licensing topics. ray@apioix.com



Michael Batalia, PhD is a serial entrepreneur and an expert in academic technology commercialization. He is also a member of the Mission II Team for the Perlan Project, an effort to fly engineless aircraft to the edge of space. He has over 16 years of experience in academic technology transfer, intellectual property management, and licensing at Wake Forest University as executive director of commercialization and North Carolina State University as associate director then director of technology transfer. Dr. Batalia is active regionally and internationally in support of technology transfer and biotechnology. He has served on the Boards of the Association of University Technology Managers, the North Carolina Biotechnology Center, the Biotechnology Advisory Committee of Piedmont Triad, and the North Carolina Center of Innovation for Nanobiotechnology. He is a co-founder of Wide Eyed Technologies and the CSO for Arctic, Inc. michael@apioix.com