

# TEAM SCIENCE IN MHEALTH RESEARCH

## Dancing with the Devil (Collaborating with Industry)

Edwin D. Boudreaux, PhD  
Vice Chair, Research  
Emergency Medicine  
University of Massachusetts Medical School

# FUNDING PARTNERSHIPS WITH INDUSTRY: IT IS YOUR IDEA

- ▶ Ideas are not patentable or copyrightable
- ▶ Apps are not generally patentable but can be copyrighted
- ▶ The person/company who writes the code generally owns the code
- ▶ You can hire programmers on a fee for service basis with a stipulation that you (UMass) own the code, but it needs to be in the contract
- ▶ You have little protection over your ideas. Be careful what you talk about and get understanding about who owns what established as early in the process as possible.

# FUNDING PARTNERSHIPS WITH INDUSTRY: IT IS YOUR IDEA

- ▶ Google it!
  - ▶ “Find an app developer”
  - ▶ Good sites on “ways to find an app developer”
- ▶ Make sure you clearly establish
  - ▶ Fee for service or not?
  - ▶ Who owns the IP? Not just between developer, but if you work for UMass then UMass owns it, not you. 30/30/30 split of revenue
  - ▶ How much it will cost to develop in iterative fashion?
  - ▶ What is the development timeline?
  - ▶ How much are the maintenance costs, and who will pay them?
  - ▶ What are the licensing and royalty sharing arrangements?

# FUNDING PARTNERSHIPS WITH INDUSTRY: IT TRULY TAKES A TEAM

- ▶ The developer needs to be a partner for the process to result in an app that is evidence based, user friendly, adaptive to feedback, sustainable long-term, and successfully marketed
- ▶ The developer should be involved from the earliest stages and encouraged to view the development as a process not simply a project or task
- ▶ Socialize the developer to the iterative nature of what is likely to happen and the importance for an evidence based approach, both in terms of content and studying its impact on intended target
- ▶ Encourage liberal use of storyboards, mock-ups, app emulators, user acceptance testing

# FUNDING PARTNERSHIPS WITH INDUSTRY: IT THEIR IDEA

- ▶ Same principles as when it is your idea apply
- ▶ Key differentiators
  - ▶ How much input do they want? Are you simply applying their app to a population, or are you helping to develop it?
  - ▶ They will likely own the IP

# FUNDING PARTNERSHIPS WITH INDUSTRY: MISCELLANEOUS

- ▶ Business requirements document, requirements document, programming specifications: bottom line, have a document that clearly delineates your needs
- ▶ Programmers vs. user experience (UX): there are specialists in these areas, just because they can program an app does not mean they have any training or experience in user experience
- ▶ IOS: Apple vs Android vs HTML5: resident vs web-based?
- ▶ Download and test the existing apps in your target area:
  - ▶ <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4286553/>
- ▶ Forever be one of those despicable people who reports conflicts of interest

# FUNDING PARTNERSHIPS WITH INDUSTRY: NIH, SBIR, STTRS

- ▶ Common form of funded collaboration for mHealth efforts partnering researchers with industry
  - ▶ <https://www.sbir.gov/about/about-sttr>
  - ▶ <https://www.sbir.gov/>
  - ▶ <https://sbir.nih.gov/about/critical>
- ▶ Requires very different skills and application than traditional NIH grants, so there is a steep learning curve
- ▶ Funded at lower (worse) scores than traditional NIH grants, so probability of success is technically a bit better
  - ▶ This is true only if you have the skills and application expertise

# FUNDING PARTNERSHIPS WITH INDUSTRY: NIH, SBIR, STTRS

- ▶ Reach out to Research Funding office and Office for Technology Transfer early in the process
- ▶ Partner internally with someone who already has one
- ▶ Plenty of people/companies willing to help you understand this mechanism:
  - ▶ Just Google SBIR/STTR
  - ▶ [http://www.sbir-sttrgrantshelp.com/?gclid=Cj0KEQjArJe1BRDe\\_uz1uu-QjvYBEiQACUj6os\\_QaRc2iF5U9XXzhOU3WddoixJQ3yiJgw-NGRZd1\\_0aAmMR8P8HAQ](http://www.sbir-sttrgrantshelp.com/?gclid=Cj0KEQjArJe1BRDe_uz1uu-QjvYBEiQACUj6os_QaRc2iF5U9XXzhOU3WddoixJQ3yiJgw-NGRZd1_0aAmMR8P8HAQ)



# FUNDING PARTNERSHIPS WITH INDUSTRY: SBIR

- ▶ SBIR: the Small Business Organization (SBO) is the applicant organization and the PI is a SMO employee
- ▶ Nearly always driven by the SBO
- ▶ Researchers can be key personnel
- ▶ SBO will nearly always own the Intellectual Property (IP) and UMass/you are not likely to get any licensing royalties
- ▶ The SBO may approach you, or you may approach the SBO

# FUNDING PARTNERSHIPS WITH INDUSTRY: STTRS

- ▶ STTR: the SBO is the applicant organization but the PI can be from the Research Institution (RI)
- ▶ Subcontract goes to the RI from the SBO
- ▶ I generally try to get a 50/50 split of the budget
- ▶ Must negotiate IP, licensing, and revenue up front
- ▶ Important to discuss what happens if the company is sold and if the products are modified later (i.e., derivative products created)