Academic Industry Partnership

An Industry viewpoint

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AIP is very interesting

- Not limited to SME which means that the 'big' companies can participate
- Specific focus on 'methods or tools that address problems in basic or applied research'
  - Probably eliminates many ideas and might limit company interest
- The partnership should leverage the strengths of each of the academic, industrial, and other investigators
- Defines 'innovation' as likelihood to deliver a new capability to end users
- Not intended to support commercial production, basic research projects, or straight clinical trials that lack translation as the primary motivation.

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Do you have something to offer a company?

- Is your idea novel?
  - Quite often ideas are not new
  - Do your research and be prepared to present the background
- Is it valuable?
  - How does your idea solve existing problems or create new opportunities?
  - Particularly, how can this idea be monetised?
- Can it be protected?
  - Often the value in an idea is patent protection if you have already publicised the idea you may have destroyed that possibility

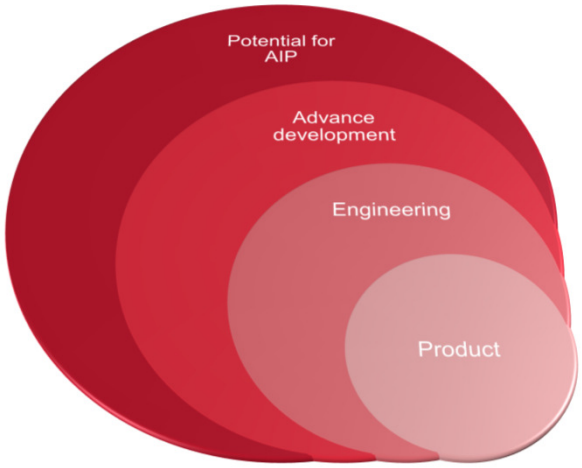
Which company is your best partner for your proposal?

- Don't assume that the company you know or work with is the best partner
- Is the idea in or adjacent to their scope of business?
  - It is very difficult and expensive for a company to change its scope
- Will it develop their products or their application?
  - For you to be able to answer this you need to understand their products and future roadmap
    - You need to do some desk based research
  - It has to be something that they are not already doing
  - You might need to enter into some deep discussions about the future
    - Possibly at a level of detail that requires an NDA

Technology landscape

- Ideally, your idea is going to be adjacent to the Advance development of the company
- This work is usually confidential but public clues can be obtained from patent applications

PS the size of the areas are not representative of the size of the activity or opportunity!



5 | Focus where it matters.

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How to approach the company

- Companies often do not like signing non-disclosure agreements
  - There is a reasonably high probability that they have already thought of the idea being proposed – this can lead to dispute and bad feelings
  - If you have something novel try and file a provisional patent and then be prepared to make a non-confidential disclosure
- Develop your 'pitch'
  - Why should the company find this interesting?
  - Why should they work with you?
- Companies will be looking for
  - Researchers with a demonstrated track record of innovation
  - Clearly thought out research project
  - Clear deliverables
- Needs to be compliant
  - Normal rules apply, no inducement, no individual gain, etc.

6 | Focus where it matters.

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The 'importancy gap' and 'time to market'

Super important
The company cannot wait for the approval of a grant funding body or the complexity of a collaboration. It will just fund this work from its own cash

Just important enough
This is the 'sweet spot' where neither of the other conditions apply. This is where AIP can work.

Not important at all
The company cannot afford to invest the resources to support a grant application or a collaboration. Likely, nothing will happen

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If you pass the initial 'interview'

- If mutually interested then evaluate if an NIH AIP is the way to go
- Alternatives include:
  - Other National and regional grants
    - You have the idea and make the application and we provide a letter of support
  - Direct Company Research Grant
    - If it is of sufficient interest then the company might want to retain control
    - Might provide early access to new product features
    - Access to restricted research interfaces
- Examples of Academic/Industrial projects funded by other schemes
  - CBCT, Portal Dosimetry and MR Linac

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Current AIP Example: MDACC and Elekta

PI: CD Fuller, MD Anderson

- Aim
  - Development of functional MRI adaptive therapy for Head & Neck Cancer patients using MR Linac
    - Develop requirements, implement prototype and test in the clinic
- Funding
  - NIH (PAR-18-009), Academic-Industrial Partnerships to Translate and Validate in vivo Cancer Imaging Systems (R01)
- Contributions
  - MDACC: Clinical research and validation
  - Elekta: Auto-segmentation and plan adaptation using functional imaging
  - Philips: DWI optimisation

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Why might a company not favor a grant application?

- For
  - Funding support, but often this primarily goes to the researcher
  - Ability to investigate something that might not be investigated otherwise
  - Access to data can be a motive for a company
- Against
  - Time and investment required for application with the possibility of rejection - waste
  - Administration overhead during project
  - Lack of control over timeline
  - Possible loss of IP
  - Lack of flexibility/long term commitment

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How to help your company advocate

- Critical to success of the project is the 'buy in' of the company management
  - They need to believe that this is 'important enough'
  - We want to try and avoid the company changing its priorities during the project
- You will likely be in contact with a research manager and they will need your help to get this 'buy in'
  - Listen to their challenges and help find solutions
- Do not view this as a burden but as an essential component of the process

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Develop the plan

- Needs to be clear and evident value for money
  - Companies have to use their shareholders' money to provide them a return
  - It cannot be frivolous or a 'hobby'
- Research Plan with clear milestones
  - Demonstrate how you will meet the goals
  - Demonstrate that appropriate work will be done for the money
  - Progress reports*
  - Likely that this can be amended with mutual agreement
- Clear definition of deliverables
  - Avoid ambiguity

** Well written progress reports are a great opportunity for you to help the company research staff promote you and your work within the company – help them to help you!*

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Some lessons learned

- Develop the plan together
  - Start with a joint brainstorming meeting
  - Ideally, the project will complement the company roadmap
  - The application should document the mutually agreed approach not just be 'your plan'
- Important to agree on expectations
  - If you need some deliverable from the company be explicit
  - Do not assume that you will get something that is not spelled out
  - Company resources are usually under a lot of pressure with other priorities
- The application should play to each others' strengths
  - The deliverables should be in the core of each party's daily activity
  - E.g. clinical applications vs technology

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More lessons learned

- Avoid making assumptions about continuing support
  - Just because you got company support for one application do not assume that if you fail and re-apply that this support still exists
- Company priorities change
  - Within the scope of the project it might be that the company's commitment to the project changes over time
  - This is likely to be nothing to do with you or the project, there are many other pressures on companies

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What makes the relationship work?

- Mutual Respect
  - Recognising each others priorities, needs and constraints
  - Also between researchers in multi-site consortia
- Open Communication
  - Good news and bad
- Patience
  - Most good ideas are initially met with scepticism
  - Deciding to bring a product to market and doing so is very complex and takes much longer than you would think
- Realistic
  - There are times when things don't work out and it is nobody's fault
  - If you are too demanding financially or otherwise the company will probably find it cost effective to find another way to do this work

How do we want this to end?

- Learning
  - Whatever else we achieve, we hope that we will both learn something valuable going forward
- Still 'friends'
  - It is totally undesirable for the outcome of an AIP to be a broken relationship
  - However, it is so easy for this to be the case
- An upside is a commercial outcome
  - Some new feature or product which allows the community and patient to gain from the collaboration

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Academic and Industry Partnership can support collaboration and long term relationships built on trust with a shared vision to deliver clinical advances that improve patient outcomes

Focus where it matters.