INDUSTRY-RELATED RESEARCH

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Polyphenols

Flavonoids

- Flavan-3-ols
- Flavones
- Flavanones
- Flavonols
- Anthocyanins
- Isoflavones
Q: HOW CAN WE INCREASE FLAVONOID INTAKE?

1. Get people to consume more plant-based foods

2. Improve the foods people consume to contain more flavonoids
   • Enhance food growth & processing conditions
ANTHOCYANIN-RICH CHERRY JUICE

- Minimally processed
- Cold pressed
- “Nectar/Puree like”
- Flavonoid & anthocyanin-rich (naturally)

There is a huge consumer demand for ‘healthier’ products. But do these translate into additional health benefits?
AIM: Human clinical trials to investigate the acute and longer term effect of consuming anthocyanin-rich cherry juice vs a low flavonoid commercial apple juice on cognition and blood pressure (BP) in older adults and people with dementia.
HOW DID WE COLLABORATE?

1. Industry partner met my PhD supervisor at a networking event
   The company was actively seeking an independent, academic research team.

2. Industry partner contacted my PhD supervisor to initiate collaboration
   • The company needed time to ‘work behind the scenes’ to prepare their business for this venture.

3. A mutually beneficial ‘research plan’ was discussed — at some length — between both parties.
   • Balancing the scales was important

4. We actively sought research funds through university schemes to support our studies
   • The company did not have enough ‘spare’ $ for research. So, it was up to us to find a grant.

5. An official contract was ‘set-up’ through the University of Wollongong’s research division, lawyers etc.
LEVEL OF INDUSTRY INVOLVEMENT

INDUSTRY

- Anthocyanin-rich Cherry juice (in-kind)
- Commercial Apple juice (in-kind)

NOT INDUSTRY

- Funding
- Facilities
BALANCING OF ‘NEEDS’ IN RESEARCH

ACADEMIA
• IP ownership
• Transparency
• Scientific Rigour

INDUSTRY
• Cost/Benefit Analysis
• Firm deadlines
• Accountability/Deliverables
OUTCOMES

Academic Team
- 2 high quality journal articles
- Establishment of a new academic team/group
- Gained reputation with novel flavonoid intervention trials

Industry Team
- Commercialisation of their juice
  - Sells this juice and other ‘value added products’ to ‘health sector’
- Increase in sales of ‘value added products’ → innovative products for ‘cherry industry’
  - Extracts, powders, ciders, wines
ADVANTAGES OF INDUSTRY RESEARCH

Industry and academia can tackle complex public health problems with a greater variety of expertise, perspectives, and resources.

Mutually beneficial research is possible
- but clarity and transparency is needed from both sides

Can reduce cost of trials
- whether $ or in-kind support – this can be very beneficial in our competitive grant world
DRAWBACKS OF INDUSTRY RESEARCH

It is complex to align mutually beneficial outcomes:
- Scientific discovery vs economic benefit

IP ownership challenges
- negotiate these strongly from the beginning – do you have to publish results?

Scepticism of industry funded research
- Ethical implications in food/nutrition research (ie. BIG FOOD!)
- 30% more likely to show a beneficial outcome
- Conflict of interest + source of funding must be declared
KEY STRATEGIES FOR SUCCESS

▪ Personal stories are the best way to explain ways to engage industry
  ▪ Talk to these people about what worked and what didn’t. They are also people who may know of possible industry partners.

▪ Researchers need to think deeply about who their possible ‘customers’ are.
  ▪ Who are the ‘next users’ of your research?
  ▪ Plan how you would go about talking to them?

▪ Network!
  ▪ Outside your sphere
RESOURCES

▪OVERVIEW OF WHY ENGAGE WITH INDUSTRY
  ▪ National Innovation and Science Agenda (NISA) & the National Science Statement.
▪FUNDING
  ▪ Cooperative Research Centres, ARC and NHMRC linkage schemes, and the Innovation Connections scheme.
▪YOUR LOCAL COMMERCIALIZATION TEAM
  ▪ Are your best bet
  ▪ Can help you get introduced to potential industry, setting up contracts, and assisting with grants.