



PHOSPHAGENICS

***Commercialisation of IP
from cradle to grave***

27 October 2010

Delivering More...

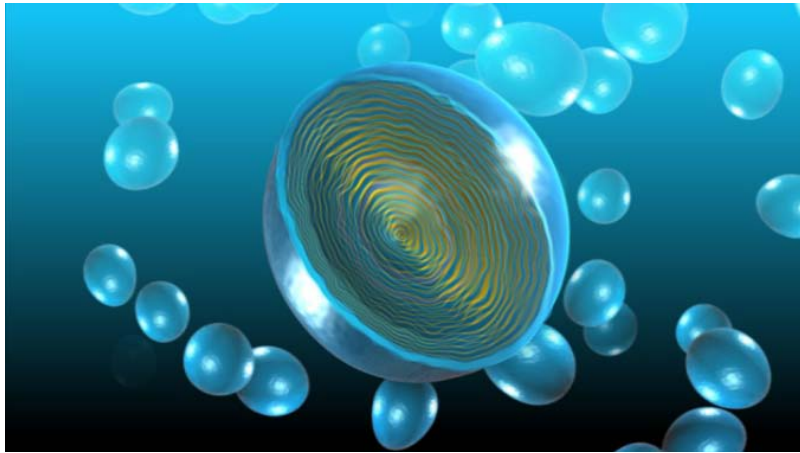
Through Innovation in Transdermal Delivery

Listed on the Australian Stock Exchange (POH) and OTCQX (PPGNY)

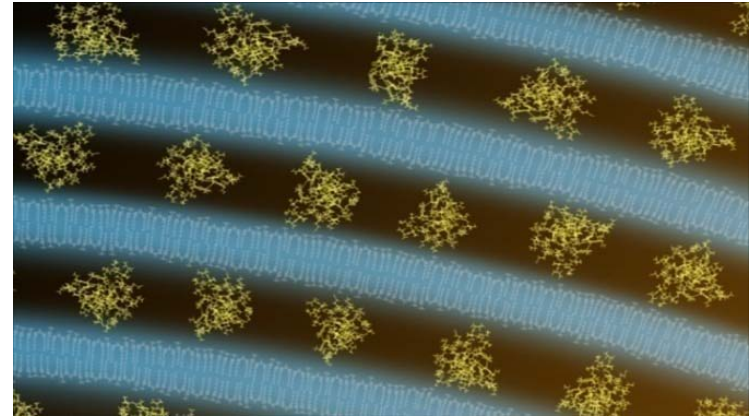
Overview

- Briefly - who is Phosphagenics?
- Who owns an invention - the fundamentals
- Case Study - *University of Western Australia and Dr Gray*
- Suggestions for employers
- Suggestions for due diligence

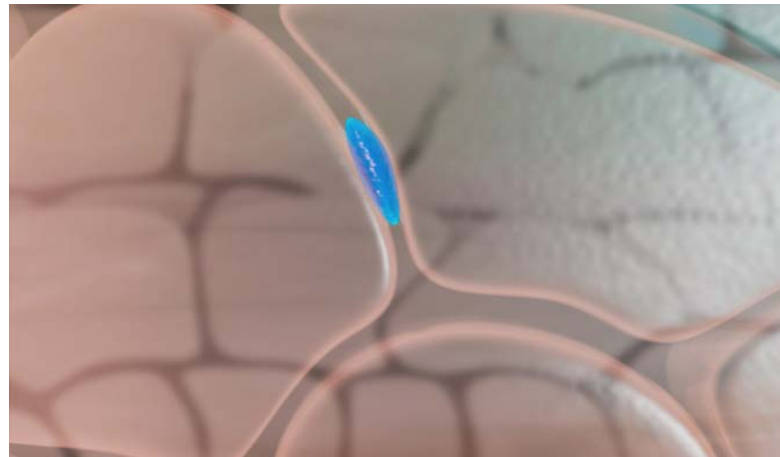
TPM™ delivery platform - vesicular encapsulation



Close-up of a TPM™ vesicle showing its unique multi-layered interior.



Inside view of the TPM™ vesicle, showing how the drug to be delivered ("the active") may be positioned within the layers of the vesicle.



Close-up showing how the TPM/active vesicles' flexibility allows them to squeeze between the skin's cells and travel towards the more vascular, deeper layers of the skin.

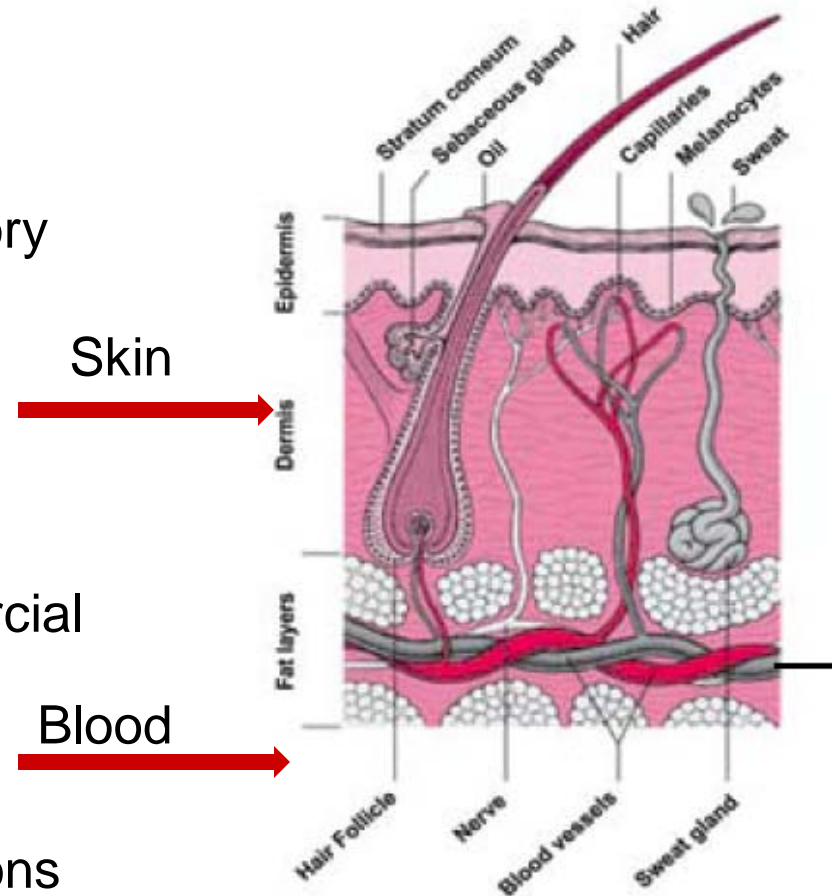
TPM™ delivery platform: topical and transdermal

Non-systemic / localised delivery

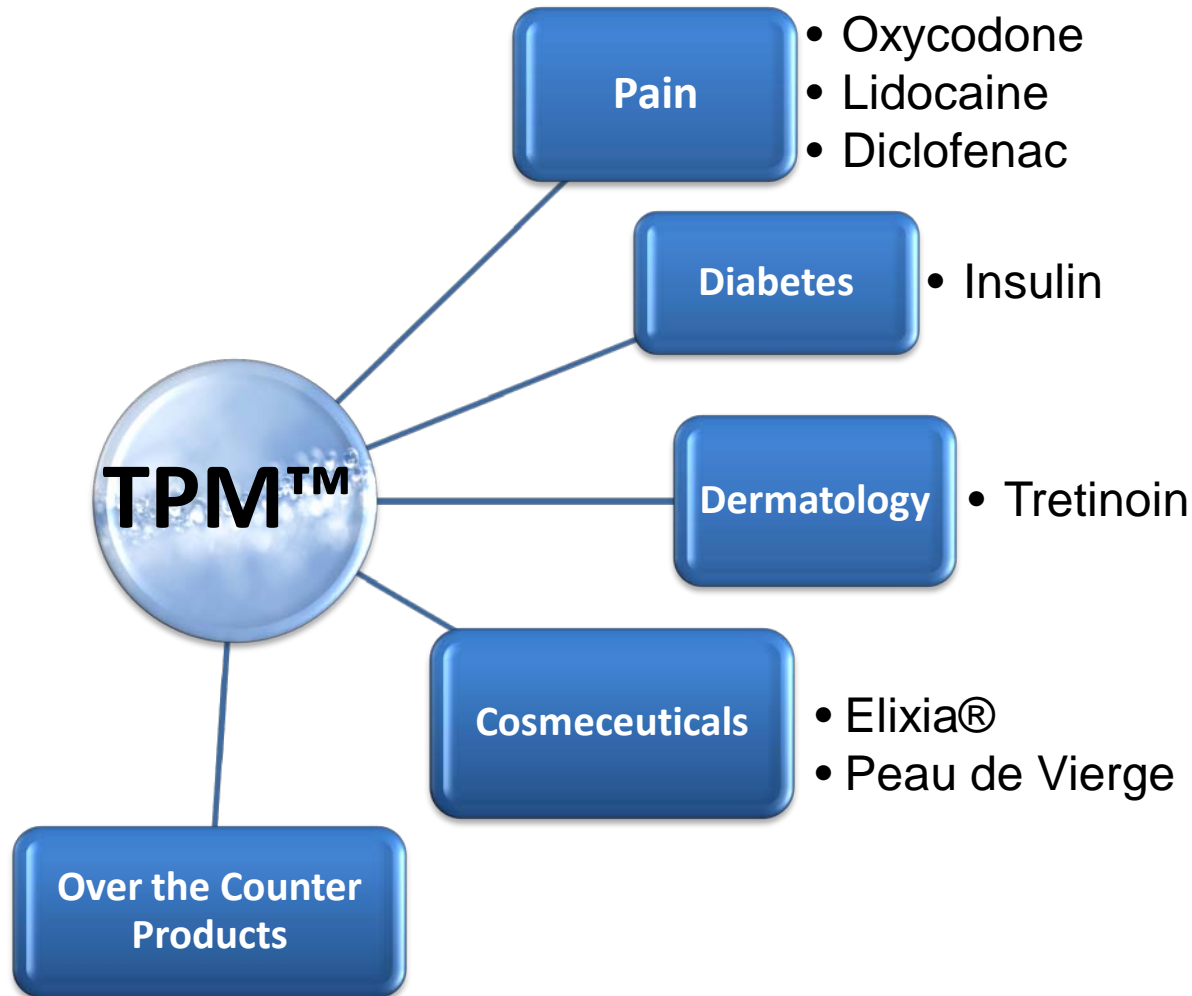
- Lower R&D expenditure, fewer regulatory hurdles
- shorter route to market,
- *revenue generating*

Transdermal drug delivery systems

- Provide low cost / reduced risk commercial opportunities
- pharmaceutical product life cycle extension, technology protected by a number of patents and patent applications



Validated Technology



Who owns an invention?

Two key issues

- Who is or are the *inventors*?
- Who is *entitled* to own the invention?
 - Was the invention made in the course of employment?
 - Was the invention made under some sort of contractual obligation?
 - Reliance on common law ownership of inventions by employers



University of WA v Gray

- Related to a dispute over ownership of an invention - treatment of cancer using “microspheres”
- A company (Sirtex) commercialised the spheres and has built very substantial value based on this technology
- The development of the invention was carried out over a lengthy period of time with multiple funding sources



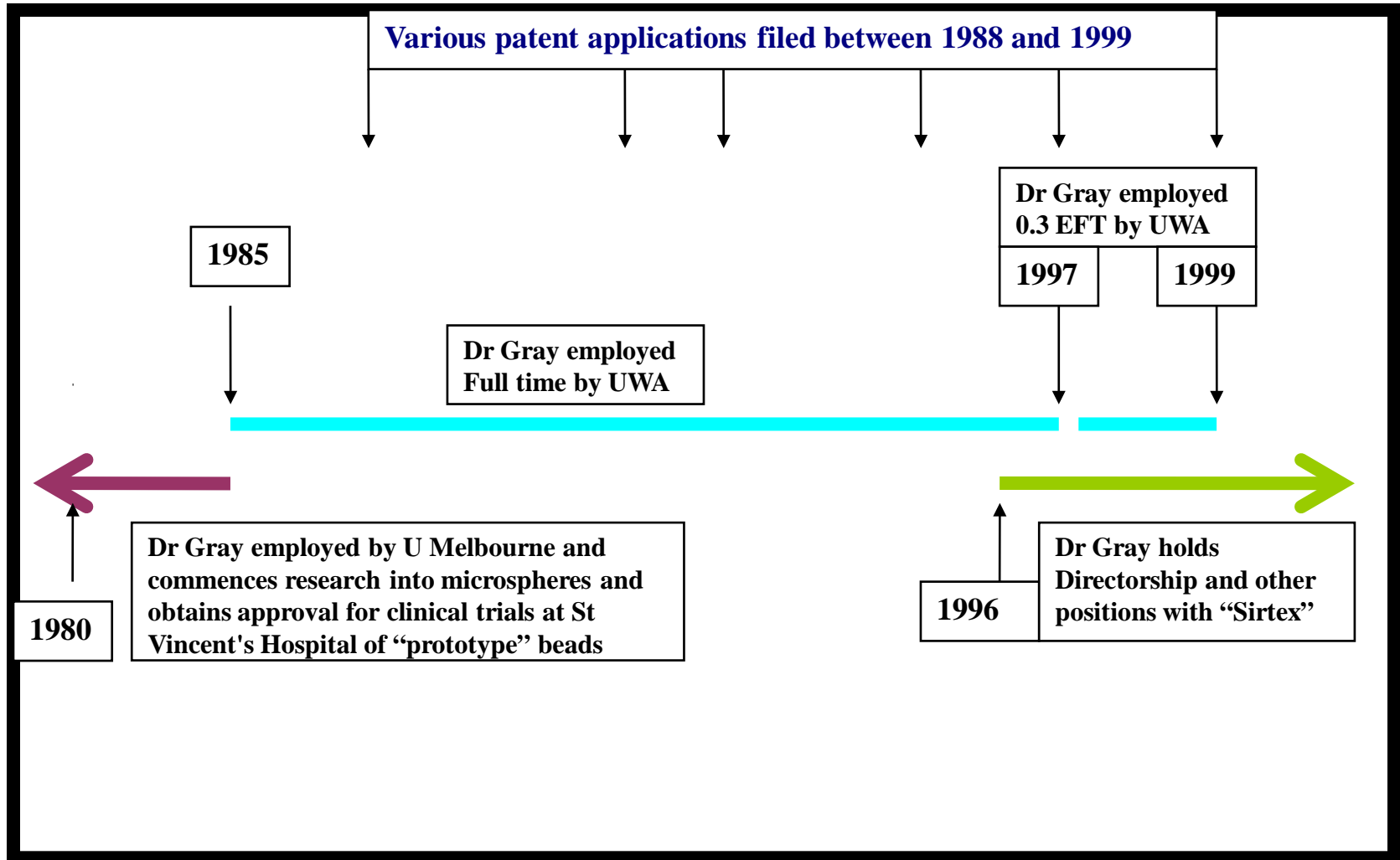
The key parties

- University of Western Australia (UWA)
- Royal Perth Hospital (RPH)
- Cancer research Institute (CRI)
- “Sirtex”

- Dr Gray
 - Dr Burton
 - Dr McCullough
 - Dr Chen
 - Dr Jones



Timelines



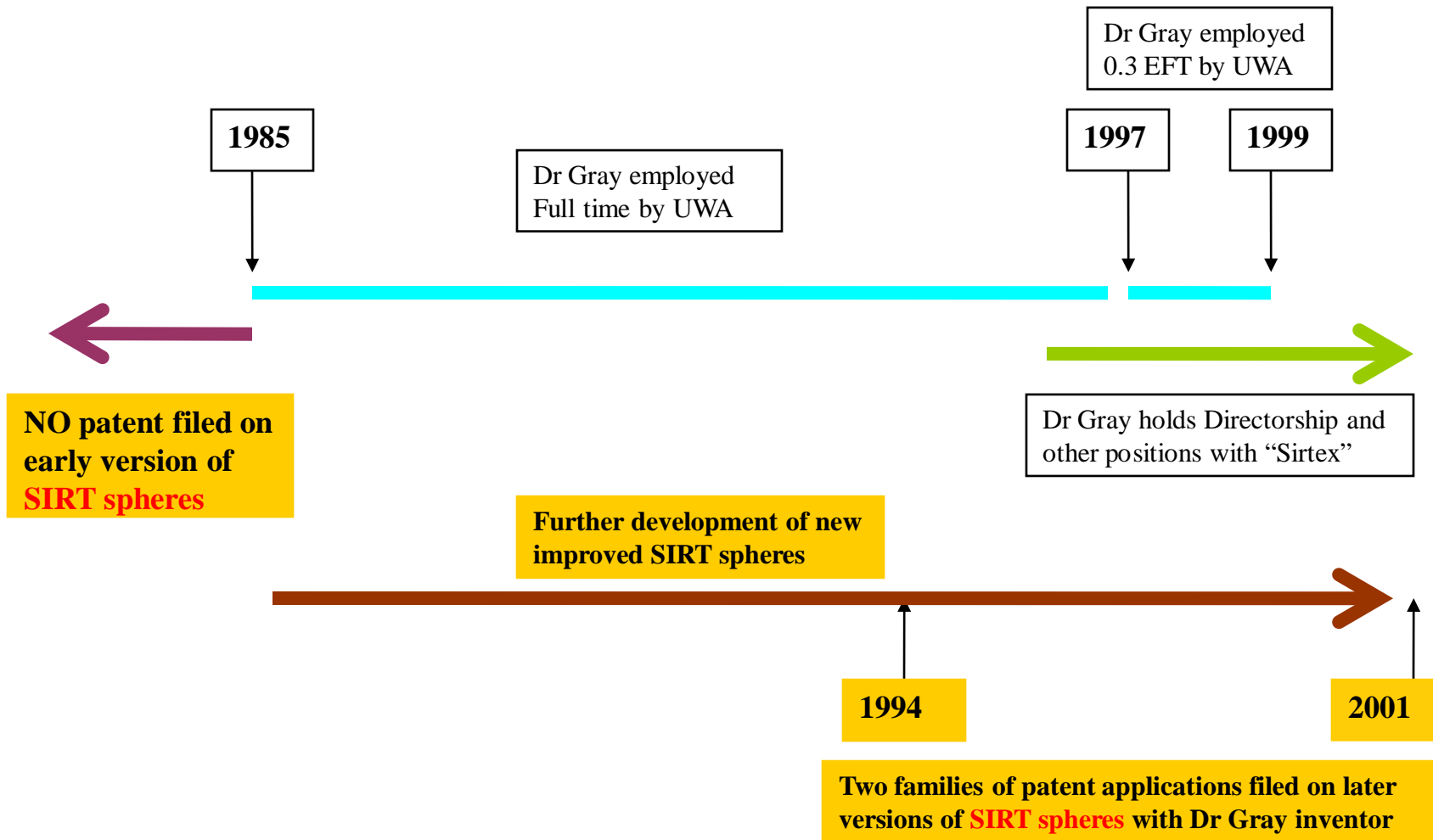
Three inventions

- “Radioactive” spheres (SIRT)
- “Chemical” spheres (DOX)
- “Thermo” spheres

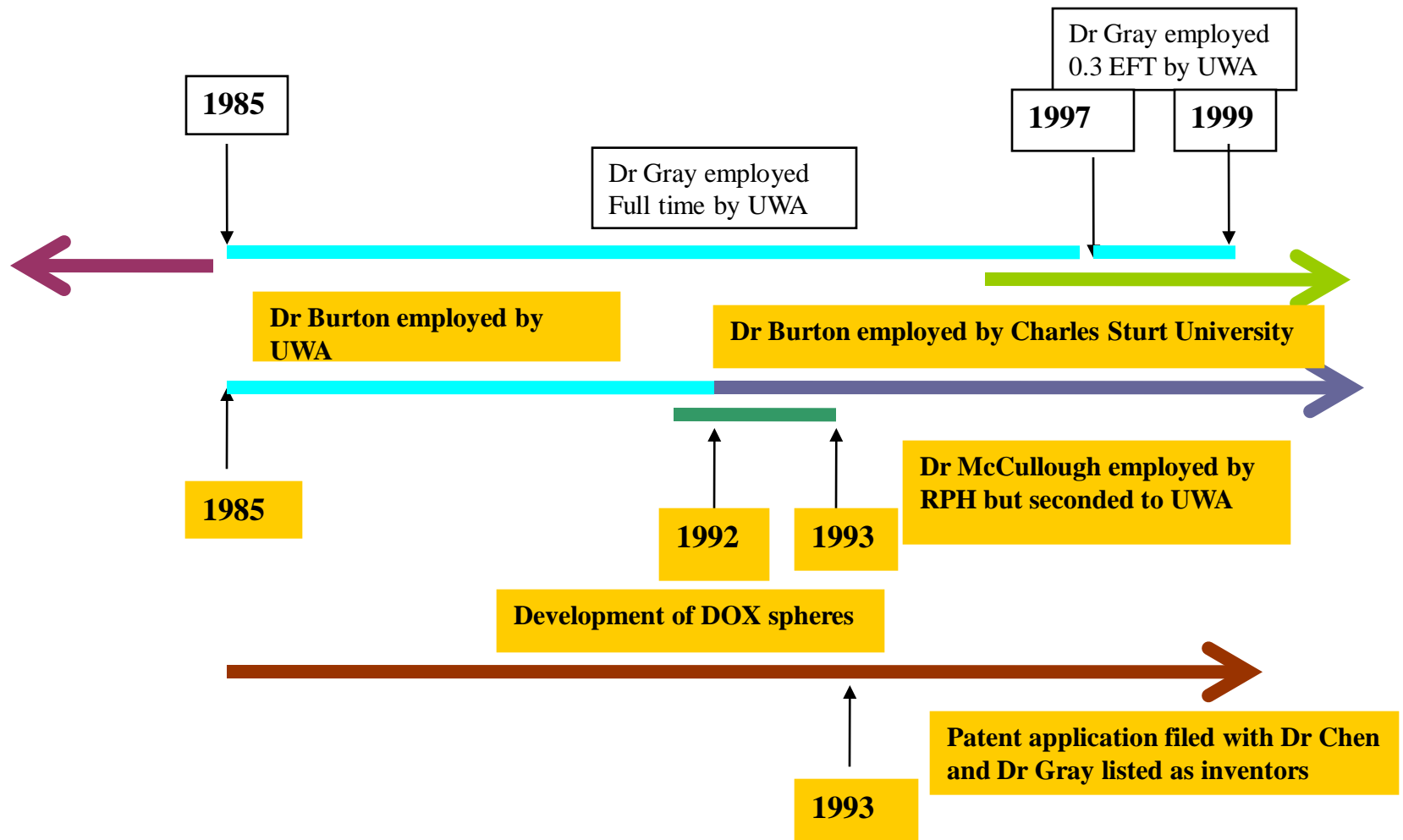
Only the SIRT spheres have so far been commercialised



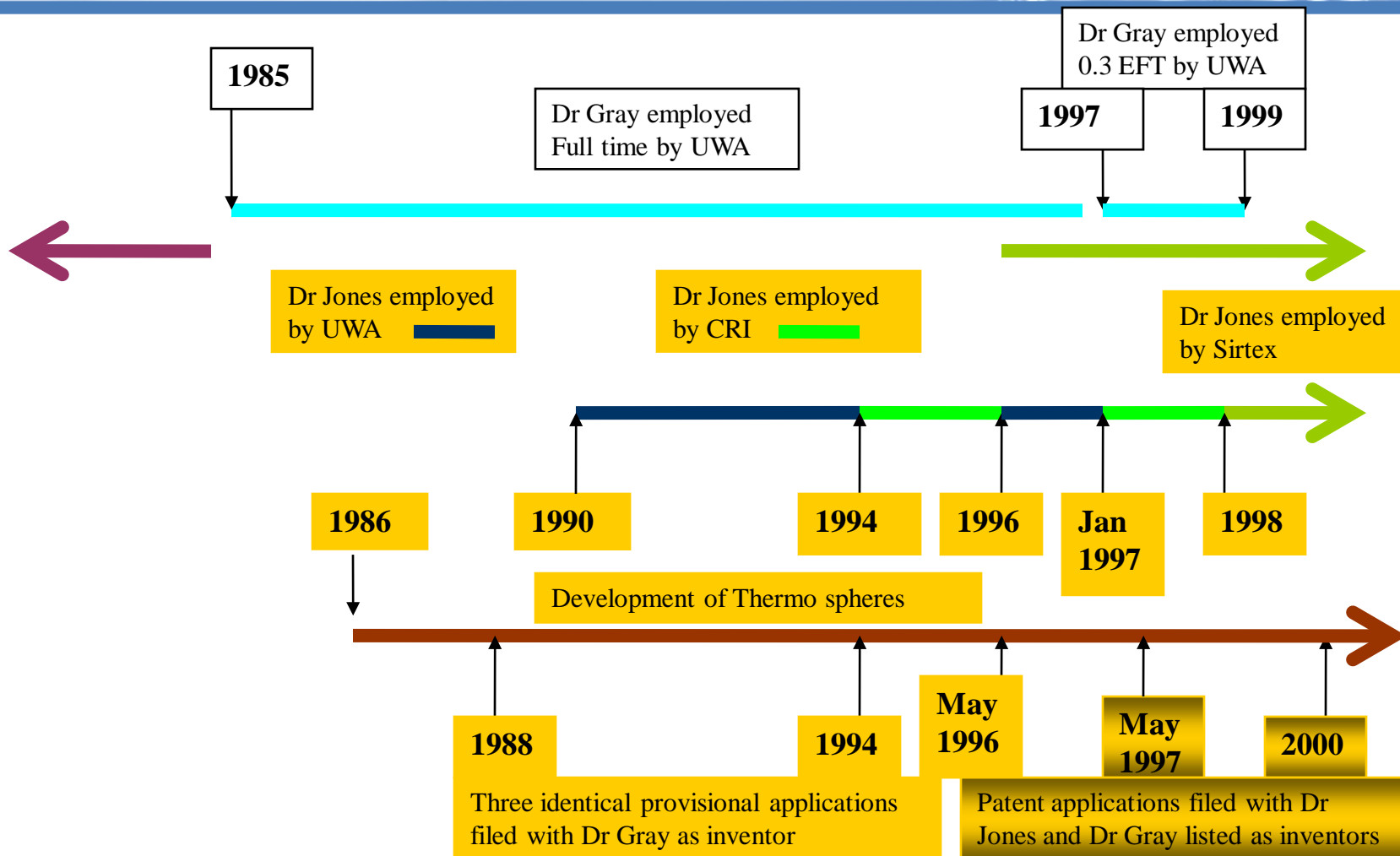
Inventors-radioactive spheres



Inventors-chemical spheres



Inventors-thermo spheres



Result on inventorship

- SIRT spheres - Dr Gray inventor but “**conceived prior to UWA employment**”. Any improvements after this were merely “reduction to practice”
- Chemical spheres - inventors were Dr Gray (debatable), Dr Burton, Dr Hodgkin (CSIRO collaborator) and Dr McCullough **at a time when Dr Burton and Dr Gray were employees of UWA**
- Thermo spheres - invention conceived no earlier than April 1997, **Dr Gray not an inventor, Dr Jones not employed by UWA at the time of conception**



Why might UWA assume it owns the chemical spheres?

- Dr Gray and Dr Burton were the inventors and were employed by UWA at the time of conception of the invention
- Dr Gray's contract had an express "duty to research"
- Dr Gray had communicated with the commercial arm of UWA on more than one occasion



Why did the court find UWA didn't have ownership?

Among other reasons

- No “duty to invent”
- Academic freedom including publications
- Free to get funding from a range of sources
- No specific contractual obligation to assign patents

Even the invention **conceived during employment by UWA** was not owned by UWA

TIP- don't rely on common law employer ownership



Employers managing internal projects

- All members of a team POTENTIAL inventors
- Who is their employer?
- What does their CONTRACT say about IP ownership?

TIPS

- All employee contracts must have express IP ownership provisions
- Employee job descriptions should include “duty to invent”
- Get all potential inventors to sign a confirmatory assignment as soon as possible after filing



Due diligence/spin outs

- Who are the inventors?
- Who are (were) they employed by (students?)
- What are the contractual positions of each party

TIPS

- Flow chart or table of contributors and timings and who they were employed by or other contractual obligations
- Ask lots of questions and keep asking
- Some lawyers suggest you **consider** making key researchers party to agreements themselves



Remember

Two key issues

- Who are the **POTENTIAL OR ACTUAL** inventors?
- What is the **CHAIN OF ENTITLEMENT** from the inventor to the owner?



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Thank You

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www.phosphagenics.com