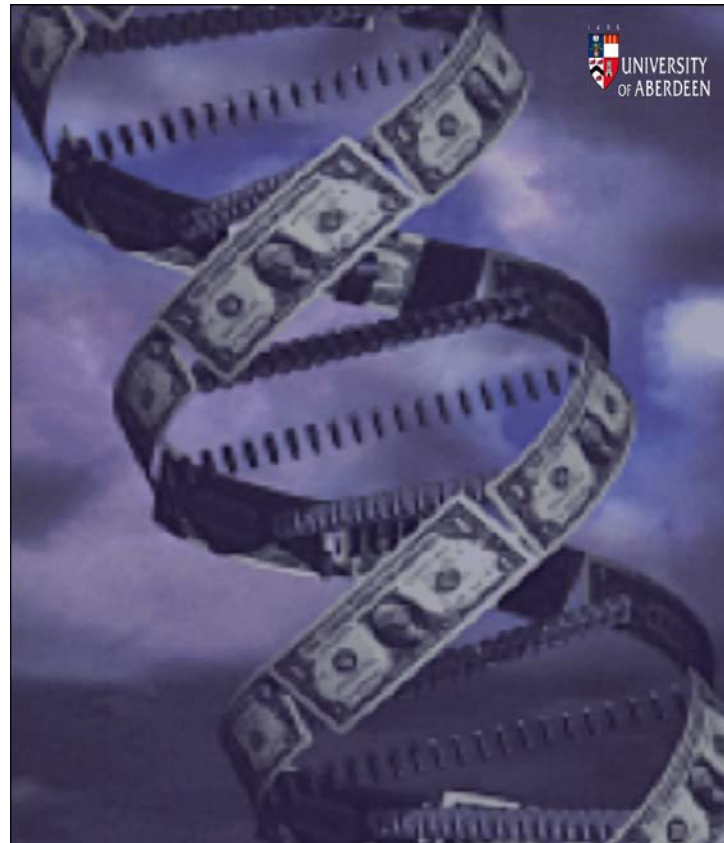
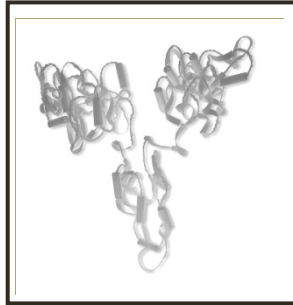
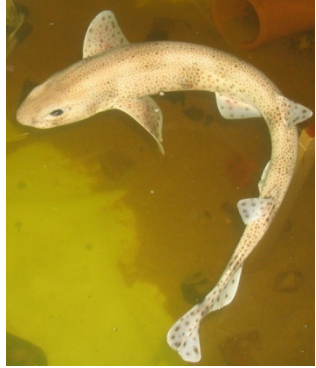


Careers in BioScience

Andy Porter



My "CV":



GRAMPIAN BIOPARTNERS
Investing in Life Sciences and Talent

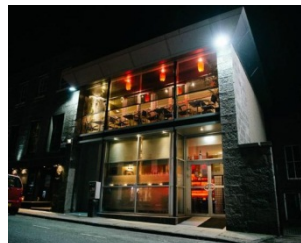
antoxis

Andy Porter FSB FRSE

Professor of Biotechnology

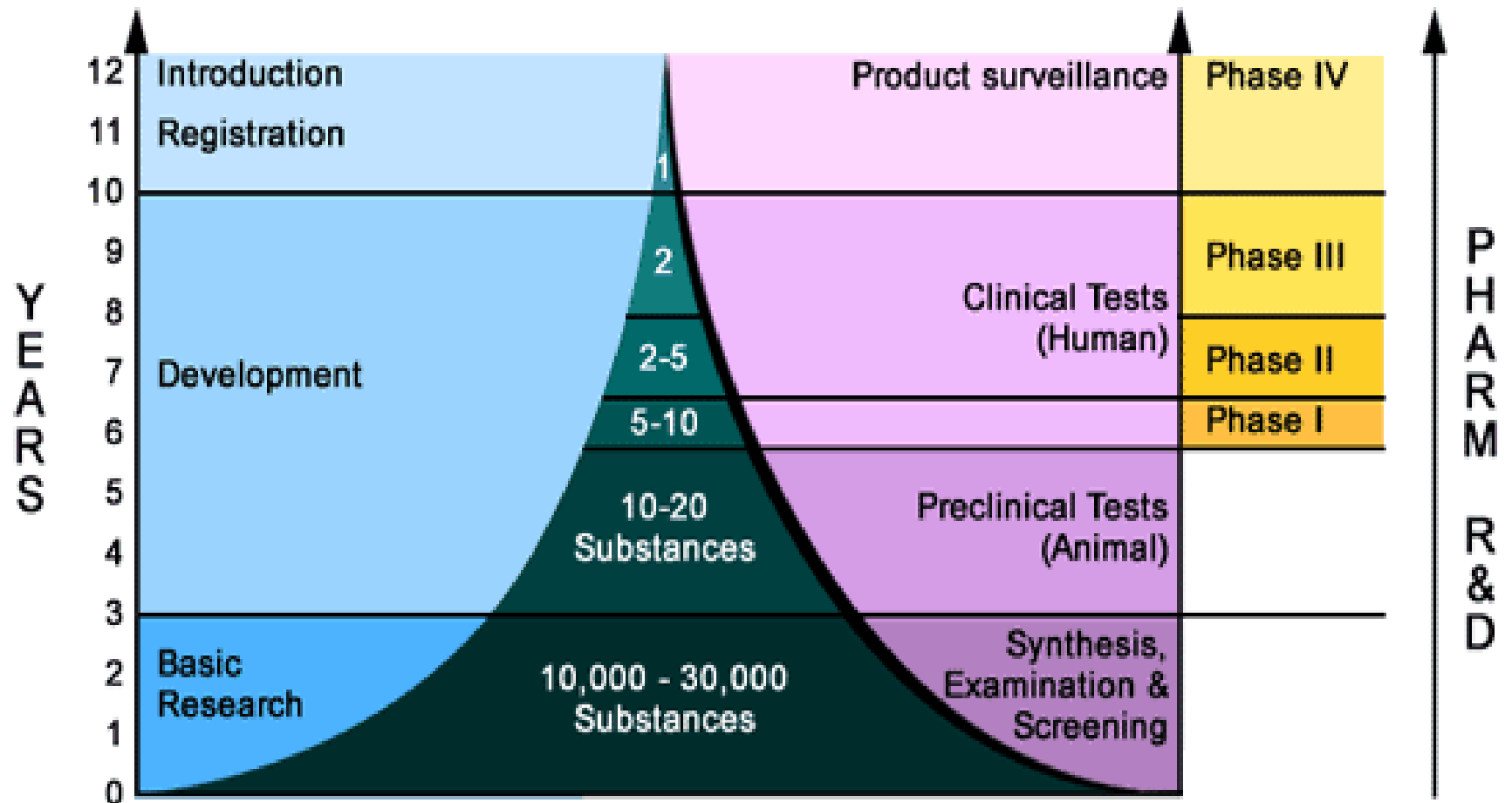


NovaBiotics Ltdtm
TAKING NATURE'S LEAD IN ANTIMICROBIALS



The drug development process

What careers are available at each stage of the “funnel”?



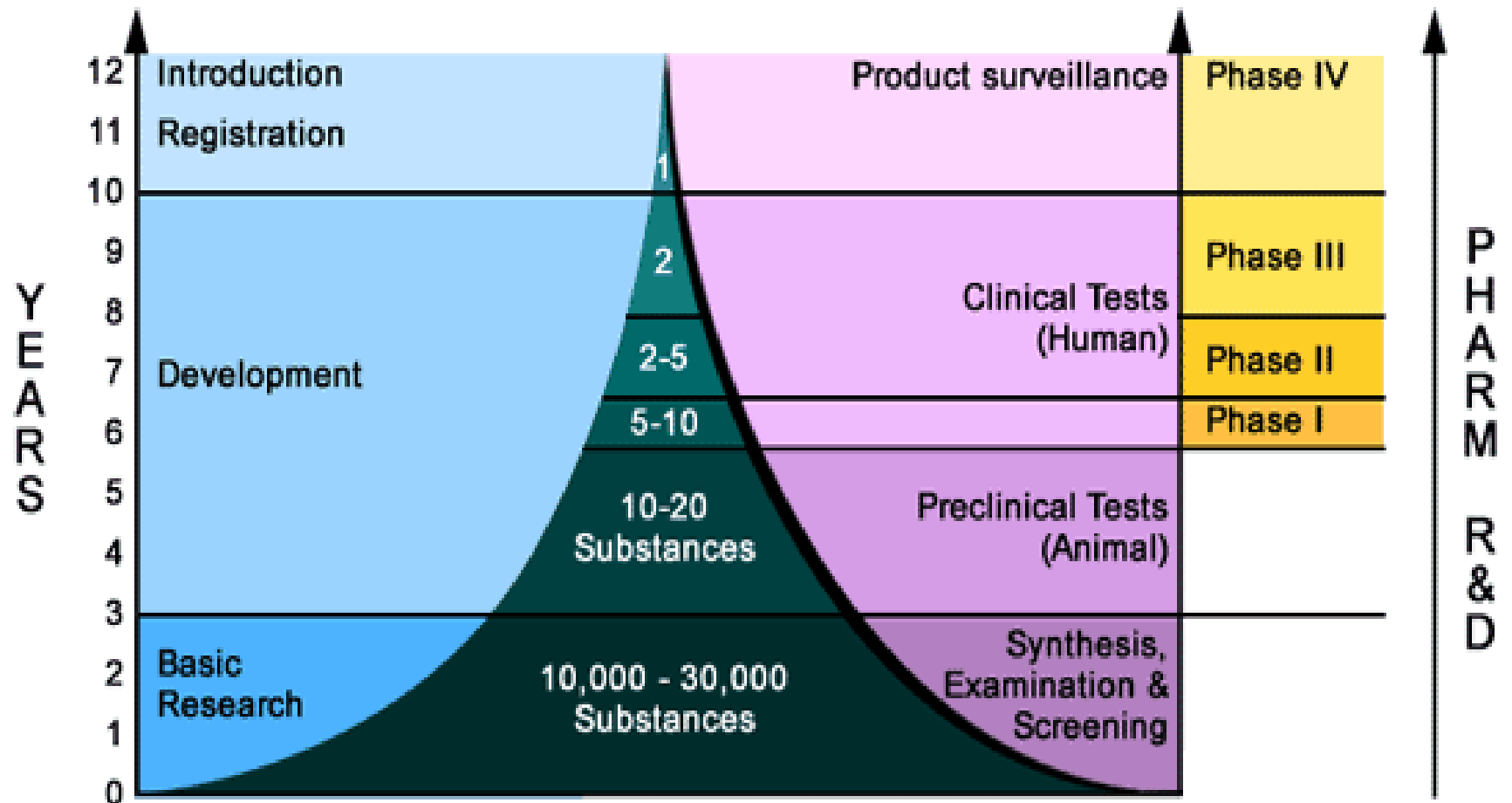
Business Models Influence Type of Job:

- The Californian Model
 - Shit or bust !
 - Make nothing, sell nothing
 - R and D focus
- The Scottish Model
 - Revenue generating
 - CROs, Diagnostics, Clinical trials
 - Client focus, regulatory
- The Indian Model
 - “Patents – what patents?”
 - Manufacturing led



The drug development process

What careers are available at each stage of the “funnel”?



Patent Attorney

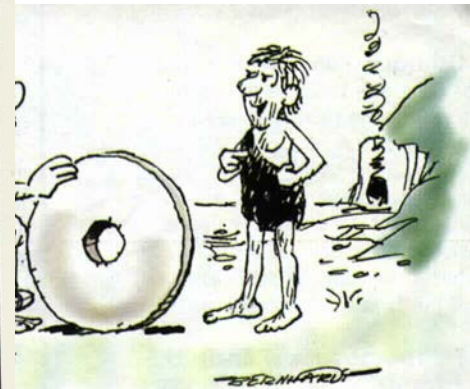
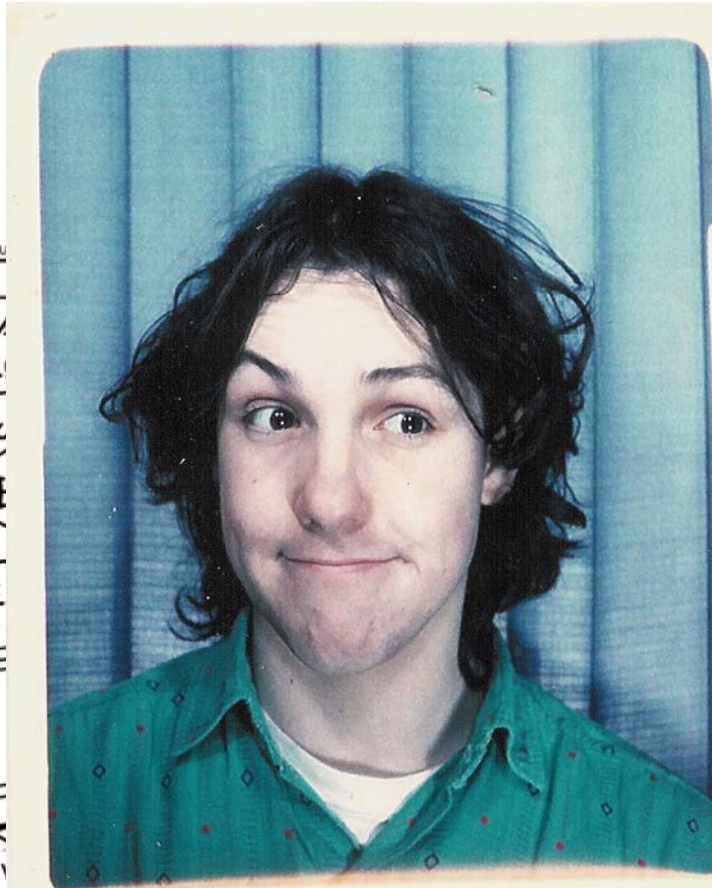
Stu's Views

© Stu

$$\sqrt{4\pi} = \sum P \quad A/$$
$$d_1 = \ln(S/X) + (r + 0.5\sigma^2)$$
$$d_2 = d_1 - \sigma\sqrt{T}$$
$$\Delta \frac{\Omega}{\sum x \Delta \Phi}$$
$$\Phi_4 x = \lambda \Sigma^2 \Phi$$
$$\Omega \int_{K\Delta} \gamma x / \gamma \pi = \infty \gamma \Sigma$$

STU

To patent it, I'd have to hire a patent attorney.
You may need a different lawyer.



...uck. I've just invented
a new type of patent attorney."

Why is IP important?

Intellectual Property

- Adds market value to the business, it may be >80% of total value
- It could provide the business with a source of income e.g. licensing
- By protecting your IP, you can prevent competitors using your ideas
- IP ownership can help attract investors to your business

IP Portfolio

- IP Portfolio = IP + Quasi IP
- Patents, Designs, Copyrights, Trade Marks, Know How, Trade Secrets, Confidential Information, Reputation

What is a Patent?

- A patent for an invention is granted by government to the inventor, giving the inventor the right for a limited period to stop others from making, using or selling the invention without the permission of the inventor.
- Patents cover products or processes that have new functional or technical aspects; i.e. how things work, what they do, how they do it, what they are made of or how they are made.

What is a Patent?

To be patentable your invention must:

- **Be new**

- The invention must never have been made public in any way, anywhere in the world, before the date on which an application for a patent is filed.

- **Involve an inventive step**

- An invention involves an inventive step that would not be obvious to someone with a good knowledge and experience of the subject.

- **Be capable of industrial application**

- An invention must be capable of being made or used in some kind of industry.

No. 654,611.

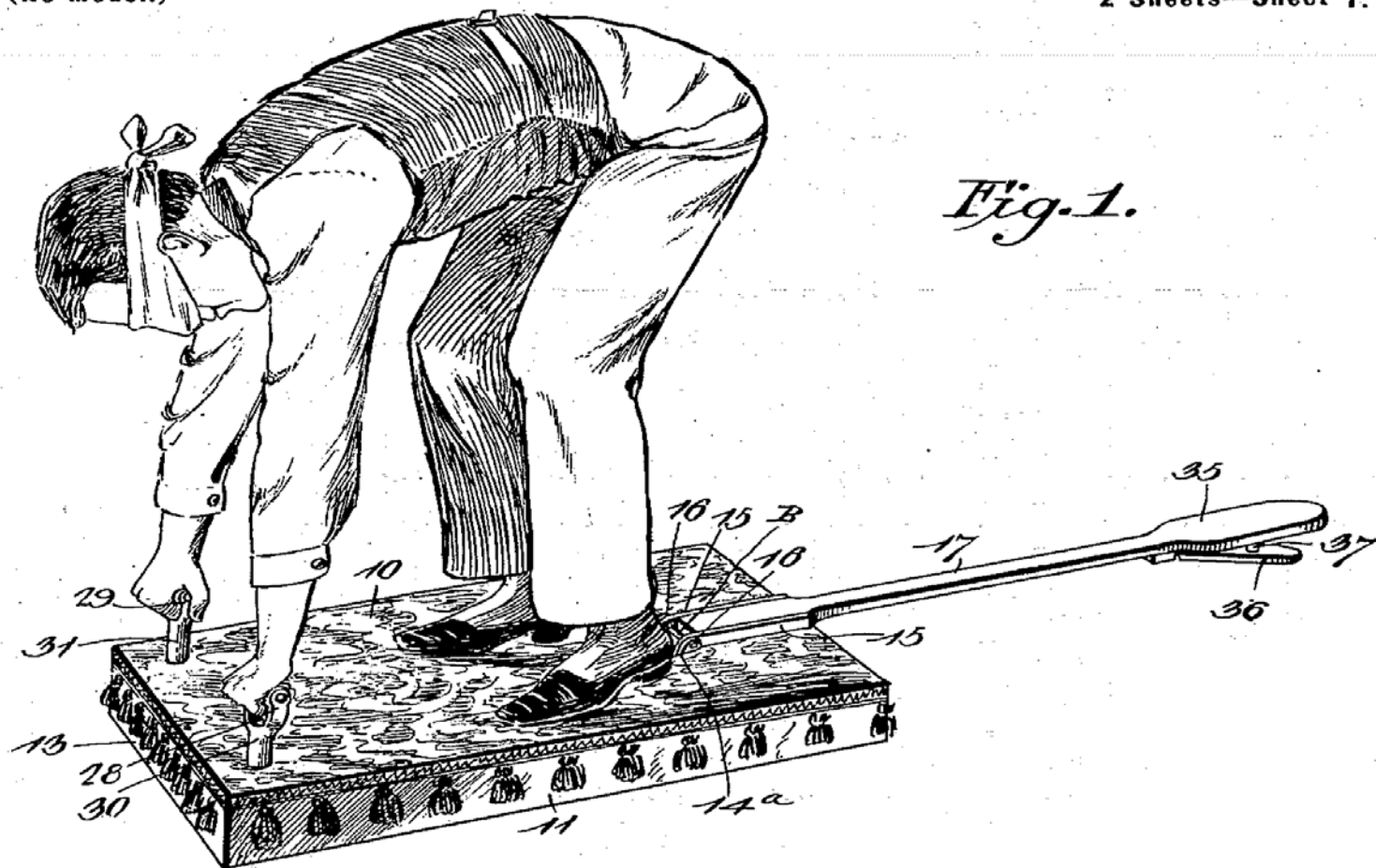
Patented July 31, 1900.

E. & U. S. DE MOULIN.
INITIATING DEVICE.

(Application filed Feb. 20, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Initiating Device

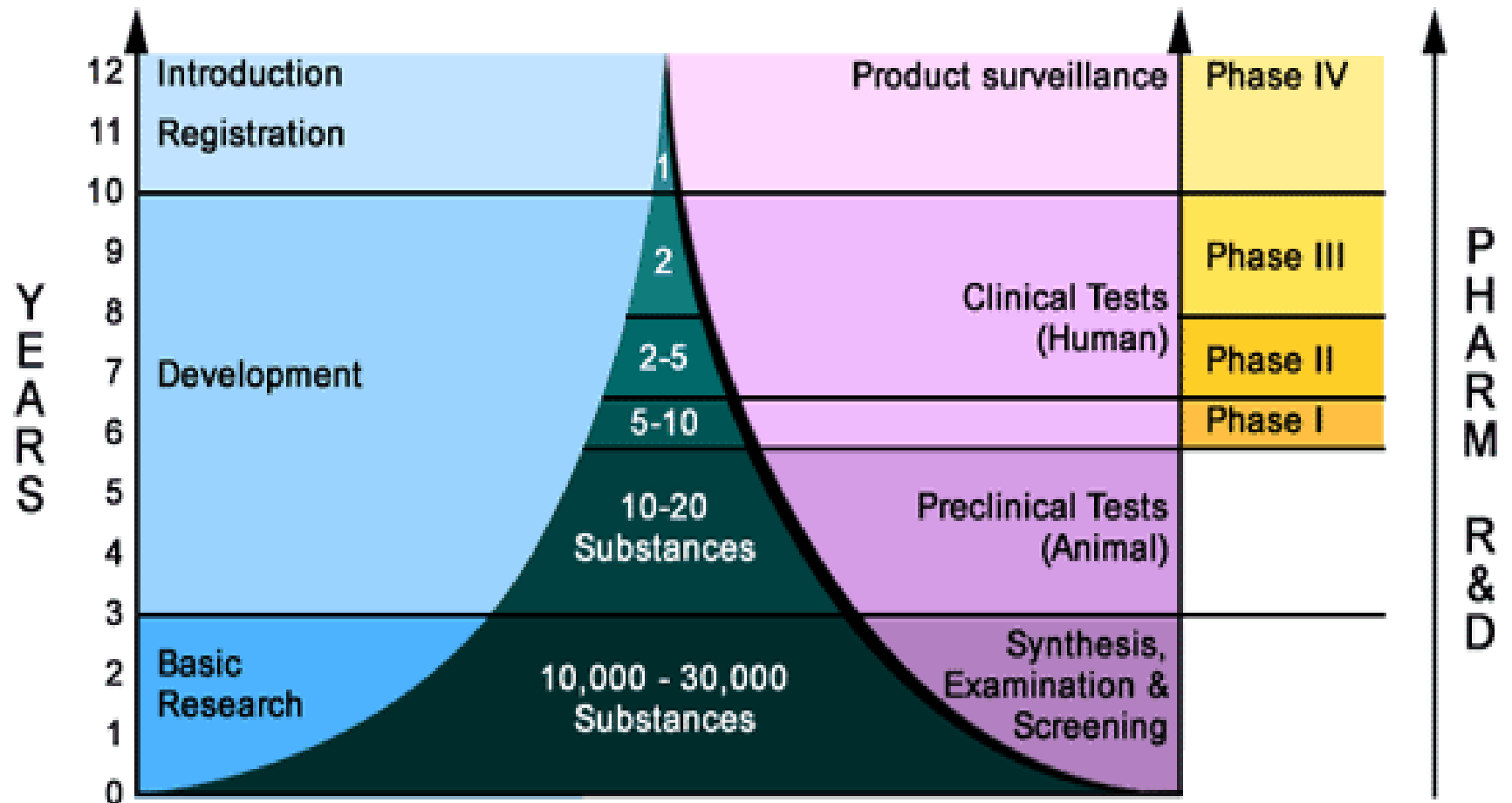
This invention relates to a spanking-machine, the construction being such that the applicant will be struck with a paddle and at the same time will be given an electric shock, the mechanism being thrown into operation by the applicant himself.

Patent Attorney

- What does a Patent Attorney do?
- Many difficult exams
- Deadlines every day
- Interesting - problem solving every day
- Enjoys capturing ideas in words
- Makes Good Money

The drug development process

What careers are available at each stage of the “funnel”?



Bio-Business Development

- Patent Claim 1 (Granted Globally)
- An molecule XX specific for the treatment of metastasising cancers
- How would you maximise you financial return by licensing this technology?



Bio-Business Development

Business
savvy
scientists



Start your own company

Face to Face
messaging Meet
Network **CONFERENCES**
Presentation



\$\$\$
Growth
Sales Goals

Start your own company



Route to success:

- Good bench scientists will always find positions
- Lack of a PhD/MSc (or MBA) can limit career progression
- Type of company will influence the type of job
 - A good patent attorney is invaluable
- Become business savvy scientists for new opportunities
- Why not start your own biotechnology company
 - MITs “Ticking Time Bombs”
- **Plan for your future**