



# Dr Amy Prosser

## Careers in Research: Industry

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# Careers in Research: Working in the Pharma Industry



Dr Amy Prosser



# My Career History

- 2011
  - Completed my Human Genetics MSci at the University of Nottingham
  - Started my PhD in stem cell biology at the University of Nottingham
- 2014
  - Finished PhD lab work and thesis writing
  - Starting working at Sygnature Discovery
- 2015
  - February - finished my PhD (viva) and graduated summer 2015
  - Offered a permanent contract with Sygnature Discovery
- 2016
  - Promoted to Senior Scientist at Sygnature Discovery

# Academia or Pharma Industry?

- A difficult choice!
- To Post-doc or not to Post-doc ...
  - Industry: Fewer publishing opportunities, but better paid and could help develop a new drug
  - Post-doc: gain further research experience, but may not be directly relevant to industry setting?
- No 'right choice' – it's what suits you best



Nature Reviews | Molecular Cell Biology

# Industry *versus* Academia

- Industry often covers a wider range of therapeutic areas
  - This gives you the opportunity to learn new things
  - Research in academia is much more focused on a narrow topic
- Work in industry is more target driven and faster paced to meet client deadlines
- Colleagues are likely to have more varied backgrounds and experience in industry
  - Gives you the opportunity to access lots of expertise across a range of fields
- Work is often more clinically relevant in industry
  - Which is rewarding as you are working to improve patient outcomes

# Industry *versus* Academia

- May have less autonomy in industry
  - Projects have a more defined scope and there can be limited room for experiments outside this – more target driven and less ‘blue-sky’
  - Part of a larger team
  - However, projects generally not defined by grants or funding bodies
- May have greater freedom in academia
  - Project direction and scope
  - Time management and working pattern
  - Collaboration with other groups
  - ... but need to obtain funding



# Myths About Industry

- Preconceptions I picked up during my PhD:
  - ‘Throw money’ at problems
  - ‘Boring’ Science
  - ‘Simple’ Problems
  - ‘Business before Science’

Reality for both

Academia from industry perspective



Industry from academia's perspective



# Company Overview

- Founded in 2004 in BioCity Nottingham
- Integrated drug discovery company
- UK's largest independent provider of drug discovery resource and expertise
- 200 staff
  - 80% of scientists have PhDs
  - Considerable pharma industry R&D experience
- Increasing demand for our drug discovery know-how and expertise
- 10 compounds in the clinic (Phases I and II) since 2011





# Broad Drug Discovery Experience

## Therapeutic Areas

- CNS
- Cancer
- Metabolic disease
- Inflammation
- Anti-infectives
- Ophthalmology
- Orphan indications
- Respiratory

## Biological Targets

- Kinases
- GPCRs
- Epigenetic
- Ion channels
- Nuclear hormone receptors
- Proteases
- Protein – protein interactions

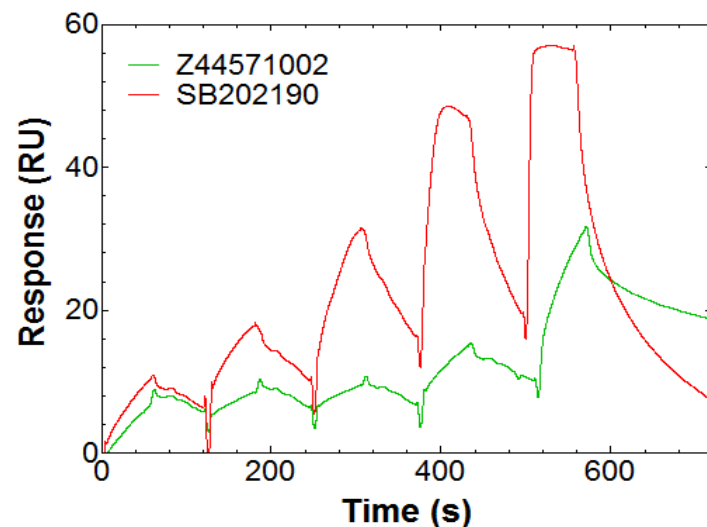


# Bioscience Scope

*Extensive experience and successful track record of delivering on a broad range of targets across multiple therapeutic areas*

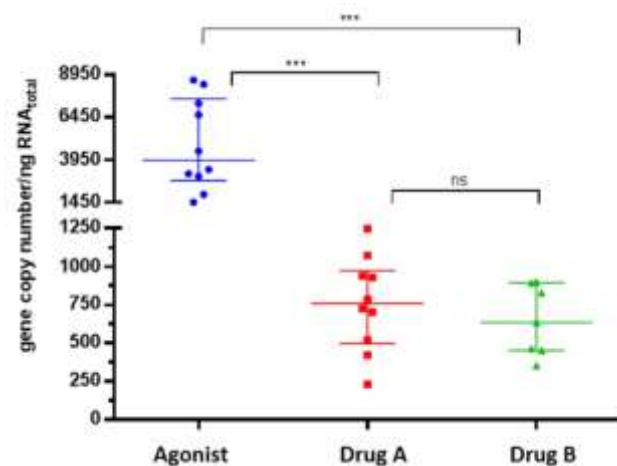
**Biophysics to characterise binding interactions at all stages of drug discovery**

SPR, ITC, Thermal Shift



**Translational approaches**

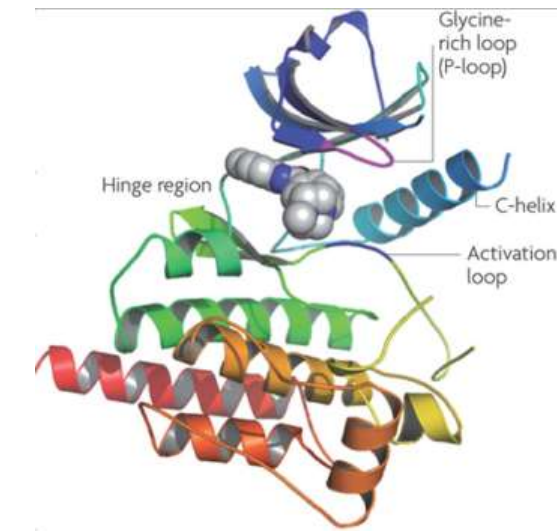
Phosphoprotein, cytokine, gene expression analysis



**Tailored biochemical assay development and screening**

Multiple assay formats and target classes

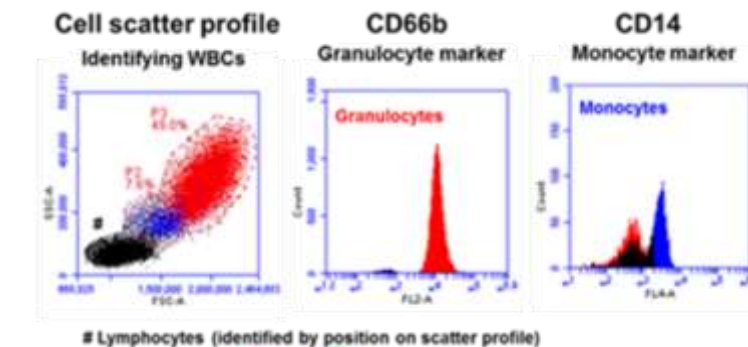
Enzymes, GPCRs, nuclear receptors, epigenetic targets



**Suite of cell imaging/profiling capabilities**

Real time live cell and endpoint assays  
Flow cytometry

Primary and immortalised cell culture, proliferation, apoptosis, cell cycle, invasion/migration, 3D culture, angiogenesis, neurite outgrowth



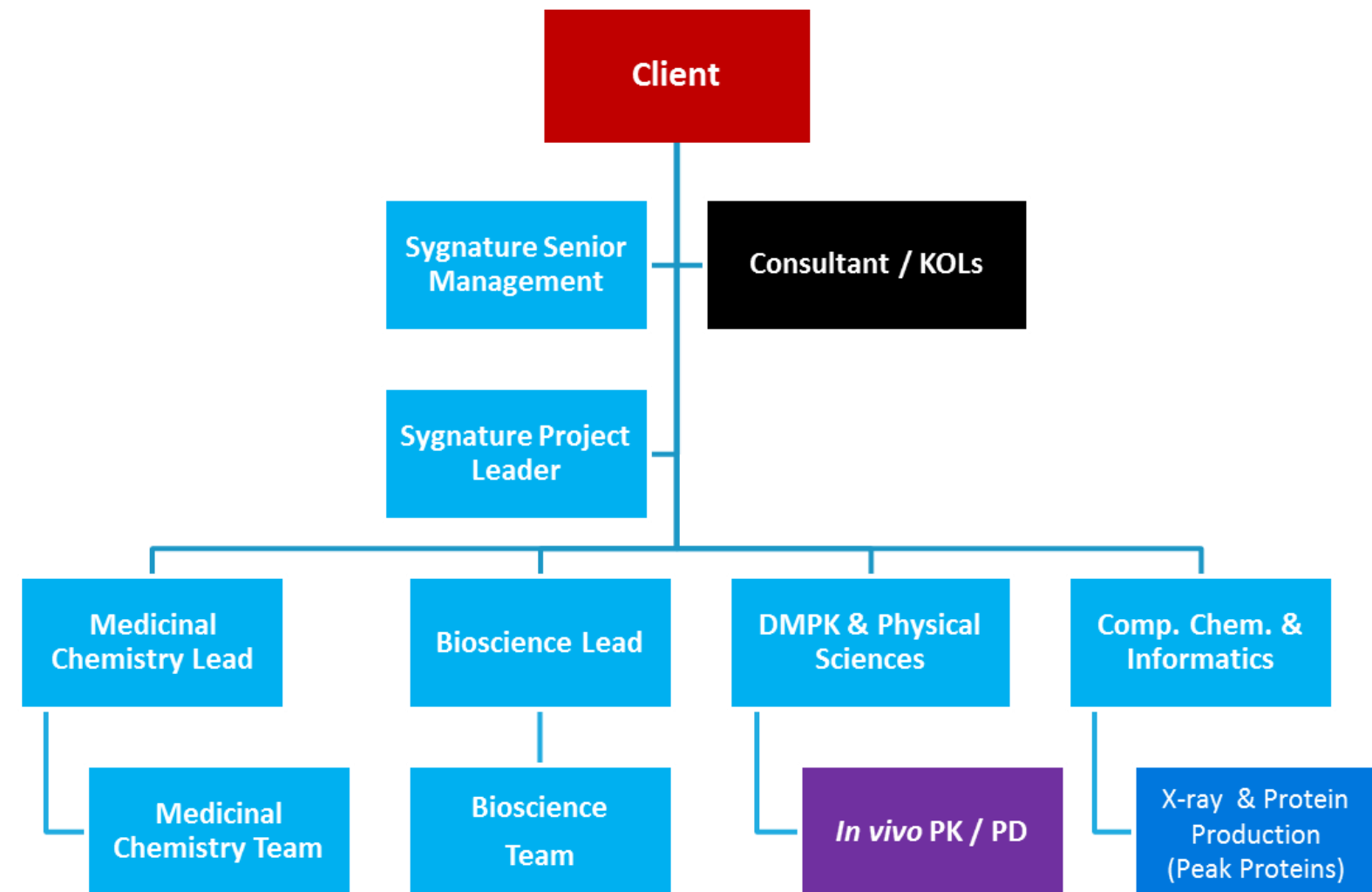
# Qualifications and Experience

- Most of our scientists have PhDs
  - If not, have a career history of working in the pharma industry
- Skills and experience are important
  - Previous experience in industry
  - Strong lab skills and techniques
  - Good presentation skills
  - Good technical scientific knowledge
  - Effective communicator with client scientists
- Attitude is also important
  - Willing to learn new things
  - Dynamic and fast to pick things up
  - Team player



# Working Practices

- Project Management
  - Many of our projects are integrated with biologists and chemists on the same team



# Working Practices

- Conferences
  - Staff regularly attend conferences that are relevant to their project, the business or their personal development
  - Poster or oral presentations at conferences are encouraged
    - Client approval is necessary to present any project work
- Publishing
  - Highly encouraged
  - But can be tricky as project work is commercially sensitive and confidential
    - Need to wait until patents are in the public domain
    - Intellectual input during project can lead to inventorship on client patents

# Training and Development

- Training
  - Good opportunities for training to develop new skills
    - Internal lab and equipment training
    - Internal courses
    - External courses
- Career Progression
  - Aim to develop and retain staff
  - Opportunities for good scientists to be promoted and take on more responsibility



# Careers in the Pharmaceutical Industry

- Growing trend among big pharma to outsource projects
  - Many SMEs and larger contract research organisations are working on behalf of big pharma companies in the UK and worldwide
- Opportunities to enter pharmaceutical industry at several career stages
  - Work experience and placements
  - Entry level jobs
  - Graduate entry jobs
  - Post-graduate entry jobs
  - Later stage career transition into industry

# Your Expert Partner in Drug Discovery



- Want to find out more?
  - Work experience placements
  - Year in Industry placements
- Contact: [careers@sygnaturediscovery.com](mailto:careers@sygnaturediscovery.com)  
[www.sygnaturediscovery.com](http://www.sygnaturediscovery.com)

