# What does an analytical chemist work with at AZ

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December 2021

#### **Anders Karlsson**

School of Pharmacy

Ph. D Analytical Chemistry

Team Manager

**Associate Professor** 

**Principal Scientist** 

**Associate Director** 

Director

Senior Principal Scientist

Uppsala University 1985

Uppsala University 1991

AstraZeneca R&D Mölndal 1993

**Uppsala University 2001** 

AstraZeneca R&D Mölndal 2003

AstraZeneca R&D Sweden 2006

AstraZeneca R&D Mölndal 2013 – 2018

AstraZeneca R&D Gothenburg 2018 –

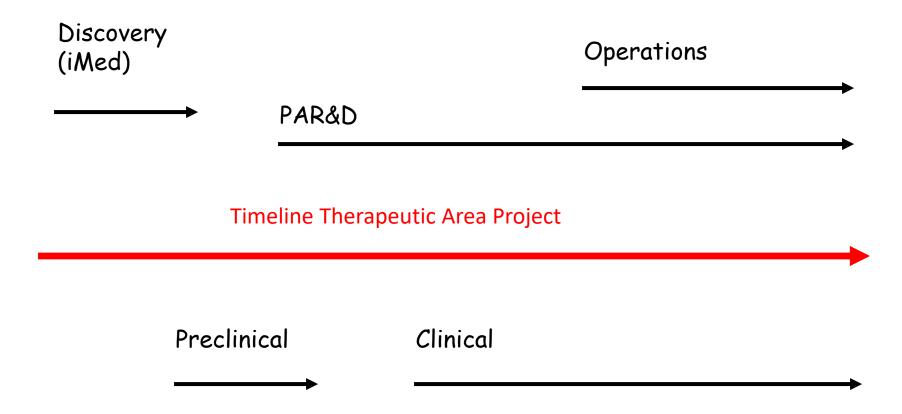
Resarch council Swedish Pharmaceutical Society

Member of Chromatographic Science Technique (EDQM Strasbourg)





## "Operative" functions



"Attrition"

### Pharmaceutical Development (PD)

- Globally about 1200 employees
  - UK Macclesfield and Cambridge
    - Focus on substance and parenteral formulation development
  - SE Gothenburg
    - Focus on oral formulation development
- About 600 employees in Sweden
- Pharmaceutical, Chemistry & Analytical (in partnership)
  - Development of substance and formulation
- Analytical Science about 120 employees in Sweden
  - Multi skill units (Inhalation and oral formulation)
  - Regional organization
  - Same size of Analytical Science skill in UK
  - Plus 50 in other functions at the GOT site
  - Plus 200 at Quality Control units at the Södertälje site

### Career ladder for an analytical chemist within PD

- A. Line Manager
- B. Project Manager
- C. Science Manager

### Career levels examples?

- Vice President (VP) Piet van den Oetelaar
- Director/Senior Principal Scientist Catherine Boissier

  Anders Karlsson
- Principal Scientist Sanna Abrahamsen/Mats Josefson
- Team manager/APS Ulrika Börjesson Morgan Stefansson Elisabeth Arvidsson
- Scientific expert and coordinator Ingrid Marle
   Andreas Bolin
- Laborative personnel
- \* Education: Three years university studies (base)

#### Who does what?

- Senior Principal Scientist
  - Senior advisor acting globally
- Principal Scientist
  - Technical/science expert acting globally
- Associate Principal Scientist
  - Technical/science expert acting regionally
- Senior Project Scientist
  - Coordinating role-project/portfolio responsibility
- Technical/science expert
  - Expert in specific technique(s) local responsibility
- Coordinator
  - Coordinating role-specific TA project
- Laborative personnel

### Project Team

- PD lead-representative (Product Development)
- About five to ten members

One of these
PD lead

- Analytical science - coordinator
- Physical science - coordinator
- Formulation science - coordinator
- Co-workers from AS/PS/FS)

- Ad-hoc meeting e.g. with technical experts

## Global Technical Community (GTC)

- Global Technical Networks
  - Nine of them
  - One contact person per region
  - Local network at each site



**UK Region** 

**Strategic Involvement** (Global link, STP's, R&T Strategy)

**Swedish Region** 

**MR Technical Community** 

**Vibrational Technical Community** 

**MS Technical Community** 

ation & Robotics Technical Community

Solid State Technical Community

**APS** 

Regional

**Technical** 

Leadership

tics Technical Community

etrics & Statistics Technical Community

ration Science Technical Community

lymer Science Technical Community

**Dissolution Technical Community** 

**NMR Technical Community** 

**Vibrational Technical Community** 

**MS Technical Community** 

**Automation & Robotics Technical Comm** 

**Solid State Technical Community** 

LIMS & Informatics Technical frommu

Chemometrics & Statistics Commu

**Separation Science Technical Commu** 

**Polymer Science Technical Communi** 

**Dissolution Technical Community** 

**APS** Regional **Technical** 

Leadership

## Specific information Analytical Chemist

#### **Education level:**

- University studies (3-5 years) base degree
  - Pharmacy/Chemical/Engineers/Physics
- Ph. D. degree
- Associate Professors
- Adjunct Professor

#### Development roles for Analytical Chemists

Starting working at AZ as laborative resource

After some years

- Co-ordinate activities within TA projects

After five to ten years

- AS (PD) representative in TA projects

Technical/science expert

Line Manager

Expert in other areas: Quality/Regulatory

Principle: As "laborative" as possible in our TA projects

## Other functions within AZ where Analytical Chemists can be found

Quality Control (QC) – Operation Medicinal Chemistry DMPK Biopharmaceutics

Regulatory affairs

#### Education within AZ

#### Education for AZ employees

- Learning by doing (TA project work)
- Time with technical expert
- Internal and external courses
- Conferences
- Secondments (short or long term)

## Thank you for your attention!

