Future needs of pharmaceutical education - Pharma Industry point of view

Orion Pharma /9.9.2015
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Contents

Orion in brief

Working life - how to succeed also in future

Strengths of the curriculum how to build on them
Orion - building well-being since 1917

Specialty Products (Gx + OTC)

- Net sales ~mEUR 1,000
- Personnel ~3,500
- R&D expenses ~11% of net sales
- Six production sites in Finland
- Sales organisation in >20 European countries

Animal Health

- Fermion (API production)

Contract Manufacturing

Proprietary Products

Orion Diagnostica

Net sales ~mEUR 1,000
Personnel ~3,500
R&D expenses ~11% of net sales
Six production sites in Finland
Sales organisation in >20 European countries
Solid growth and good profitability

Geographical sales split in 2014

- Finland: 29%
- Other Europe: 35%
- Scandinavia: 13%
- Other countries: 13%
- North America: 10%

Net sales and operating profit over the years from 2007 to 2014.
Orion’s strategy - Mission to build well-being

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Megatrends

**Ageing population**
By 2050, there will be over 2 billion people aged 60 or over in the world

**Cost burden in healthcare**
Need for cost-efficient treatments and pharmaceuticals
Promotion of occupational well-being to decrease sick days and prolong employment
Home care as long as possible

**Advancements in science**
Personal medicine targeting for better efficacy and safety
Genetics and epigenetics in drug discovery
Targeted drug delivery
Diagnostics
Fatal diseases into chronic diseases

**Increased personal responsibility for health**
Awareness of the impact of one’s own choices on health
Health information readily available to everybody
Increased life expectancy creates expectations regarding quality of life
Limited healthcare resources

Professional scientists = Ph.D.
Some hot words

Lower society’s healthcare costs.
Know our customers and their needs.
Succeeding Together!

Solutions that promote well-being by exploiting advancements in science.

Sustainable development.
Aim for highest standards in the industry with respect to the environment, health and safety.
Ethically acceptable operating practices and Corporate responsibility for patient safety.
Soft skills are important in execution

Cost containment
Simplification and renewal
Get it right the first time
Flexibility and agility

High quality and compliance with regulations are the prerequisites for existence in pharma.

Networks utilisation.
Partnerships as a competitive edge.
Working together.
Open-minded attitude and eagerness to learn new things from partners.

Quality and safety
Productivity and flexibility
Succeeding Together!

Strategic focus areas
Partnerships
Competitive product portfolio
Research and Development
Collaborative networks across the R&D value chain

Target identification and validation
Hit to Lead generation
Lead optimisation
Candidate selection, preclinical development
Phase I
Phase II
Phase III

Early stage partnering
Late stage partnering

Confidence in PoC = Confidence in Target & Compound

Target Exposure
Target Engagement
Target Modulation
Pathway Modulation
(Pathway) Physiological Regulation
Disease Modification

+ several academic collaborator
Our focus cannot be on the tools or models … it must be on the questions!

Science to drug development

Data to Models

Models to Knowledge

Knowledge to Decisions

Clinical Pharmacology & Therapeutics 2014
Commercialisation & product life cycle

Molecule and Market Identification

Access to Markets and Customers

R&D

Product Life cycle

• CMC (Chemistry-Manufacturing-Control)
• Quality assurance
• Pharmacovigilance
• Regulatory Affairs

At Orion
• Hundreds of brands
• Hundreds of partners and providers

GMP/GDP
GPvP
EHS

Industrial scale
Supply chain process
Complexity of change management

Lean thinking principles

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Pharmacists are ‘the generalists’ of pharma environment

Orion Finland employs
B.Pharm 96
M.Pharm 103
D.Pharm. 21

Pharmacists
Marketing and Sales Business
Research & Development
Supply Chain
Pharmaceutical
Nonclinical
Clinical
Pharmacovigilance
Regulatory
Quality assurance
Production operations

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Build on these in pharmacist’s curriculum

Keep the diversity of curriculum
- Utilise cross-discipline interaction already during the studies?

Top quality scientific training (PhD)
- International industry fellowships?

Soft skills matter later in working life - why not to practise early?
- Reactive to proactive - Problem solving skills
- Fixed mindset to agile /flexible thinking (growth mindset)
- Working together - Project management basic skills
- Personal leadership
Thank you