

A Career in Pharmaceuticals

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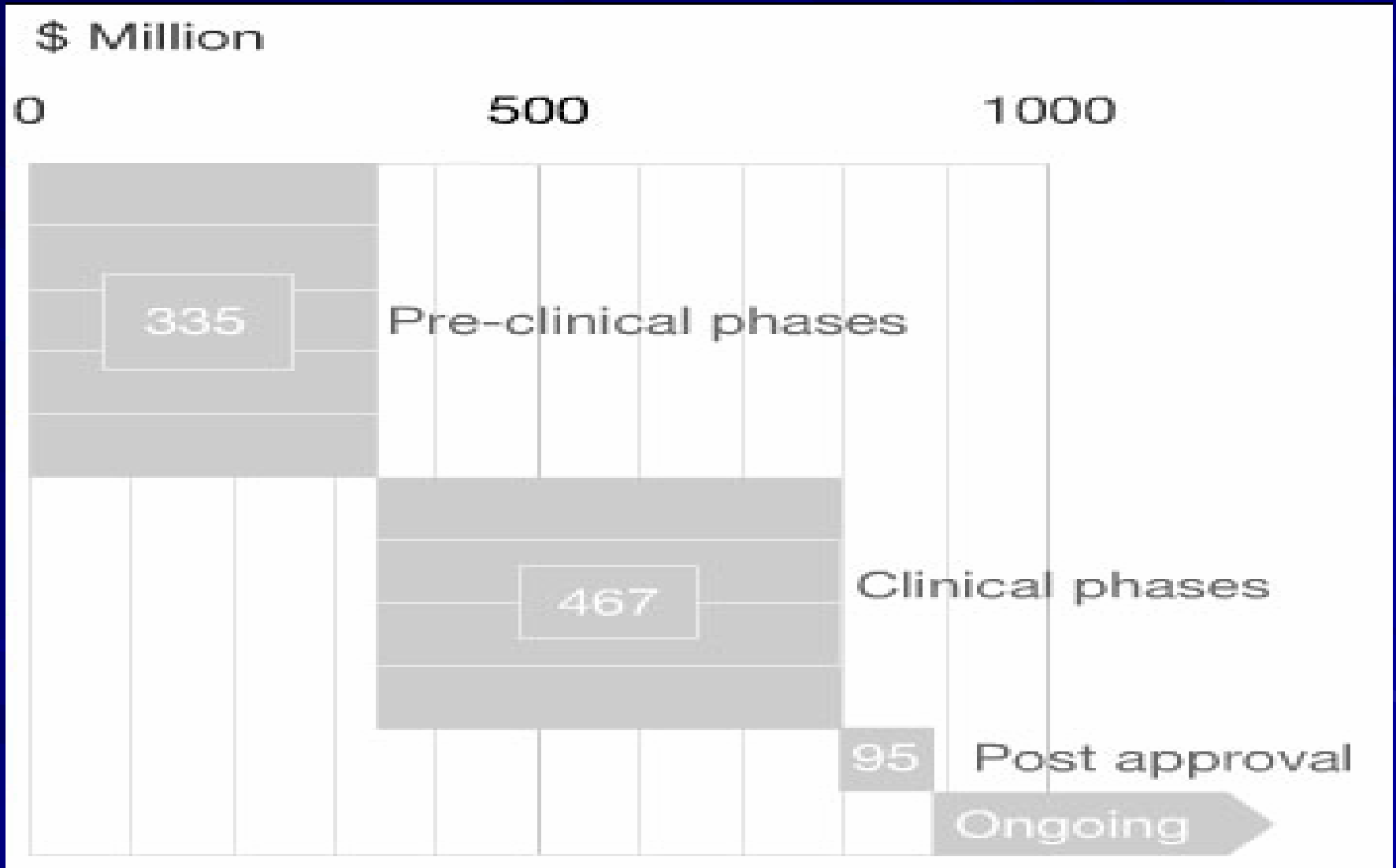
AstraZeneca

- Multinational research-based pharmaceutical company
- Over 67 000 employees worldwide, with more than 1 400 in Canada
- 6 major therapeutic areas: cancer, cardiovascular, gastrointestinal, neuroscience, respiratory & inflammation, infection

Drug Development

- Long and expensive
- Out of thousands of molecules screened, only 1 makes it to market
- Before the first dollar of sales, a drug's development can take up to 15 years and cost over \$1 000 000 000

Drug Development



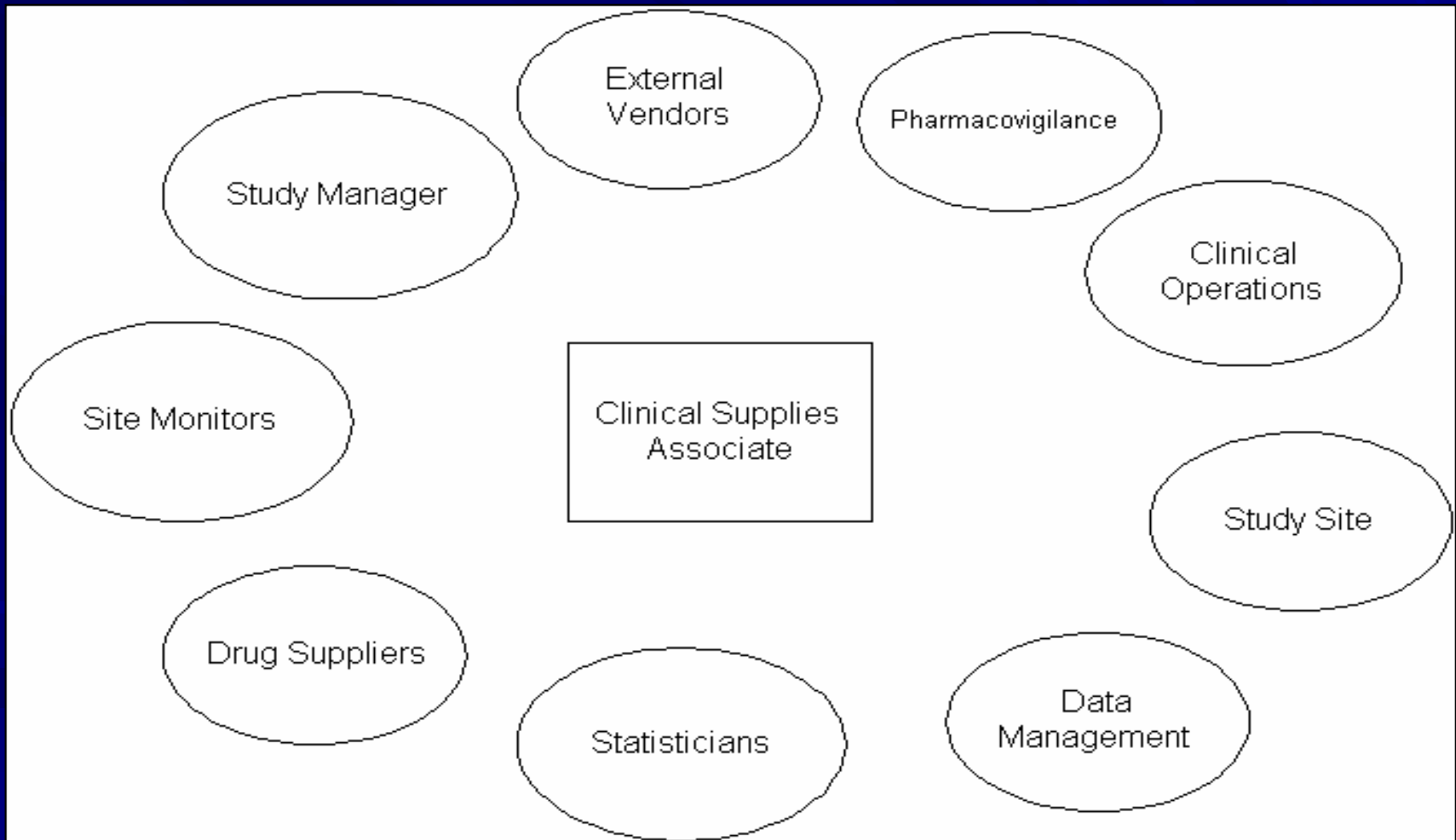
Clinical Research

- Testing of candidate molecules in humans
- 4 main phases:
 - Phase I: drug tolerability and proof of principle
 - Phase II: efficacy in target group and dose ranging
 - Phase III: largest & most expensive phase; compare drug with competitors and decide whether or not to launch
 - Phase IV: post-market launch; long-term effects and possible new indications

What does a Clinical Supplies Associate do?

- Support clinical trials at all phases
- Clinical supplies
 - Management of all materials (drug & non drug) used in clinical trials
 - Examples of functions include:
 - Forecasting, production and distribution of study medication
 - Design and implementation of study procedures (e.g. patient randomization and medication allocation)
 - Review study protocols and study agreements
 - Sourcing and sometimes the creation of study supplies (such as site aids, drug labels, case report forms)

Where does a Clinical Supplies Associate fit in?



What does this mean?

- Medication and other study supplies are of the highest quality and delivered within time & cost constraints
- Support studies to bring drugs to market; medicines become available to patients and contribution to science is made

What's required for my position?

- Degree in the life sciences
- Experience with clinical trials
- Knowledge of GMP & GCP

- *Various routes can lead to this*

What did I bring?

- Hons. BSc (Biology Specialist/Political Science Minor)
- Undergraduate research experience
- Laboratory experience
- Clinical Supplies Operator, Clinical Supplies Technician, Clinical Supplies Associate

In my humble opinion.....

- There's lots students can do to prepare for a career in pharma:
 - Have a well-rounded academic background
 - Develop transferable skills, such as communication, leadership, organization....
 - **INTEGRATE** all experiences into a directive which matches what the employer is seeking

What my colleagues think:

- “Any experience in the health field would be beneficial....having some basic knowledge of medical terminology, disease management and patient needs would enhance your scientific knowledge in preparing you for a career in pharma”

What my colleagues think:

- “The main customer for the a pharmaceutical company is the patient. It is more important than ever that we get effective and safe medicines to our patients fast”
- “...a great deal of work is involved in getting a clinical trial off the ground successfully, and it takes an elaborate network of team members and team communication to achieve this”

Things to Keep in Mind

- Develop as much research experience as possible
- Make use of career fairs, internships, mentors
- Volunteer experience is extremely valuable
- Research companies; know their products, current challenges, and successes
- And of course.....

