SCIENTIFIC CAREERS
IN HEALTH CANADA

Dr. Ekaterina Zubkova

1. Overview of Health Canada:
   - Location
   - Organizational Structure
   - Health Canada Mission Statement

2. What Health Canada does:
   - Pharmaceutical Life Cycle in Canada
   - Health Products and Food Branch
   - How do we Regulate?

3. Jobs at Health Canada:
   - Health Canada as Employer
   - Applying for a Job at Health Canada
   - Candidate Selection Process

Outline
- Location
- Organizational Structure
- Health Canada Mission Statement
- Pharmaceutical Life Cycle in Canada
- Health Products and Food Branch
- How do we Regulate?
- Health Canada as Employer
- Applying for a Job at Health Canada
- Candidate Selection Process

Location
- Central campus in Ottawa
- Multiple other locations in Ottawa
- Regional offices throughout Canada

Organizational Structure
- Assistant Deputy Minister
  - HPFB Inspectorate
  - Biologics and Genetic Therapies Directorate
  - Food Directorate
  - Natural Health Products Directorate
  - Marketed Health Products Directorate
  - Veterinary Drugs Directorate
  - Office of Nutrition Policy and Promotion
  - Therapeutic Products Directorate
  - Biologics and Genetic Therapies Directorate
  - National Health Products Directorate
  - Marketed Health Products Directorate
  - Policy, Planning and International Affairs Directorate
  - Office of Consumer and Public Involvement
  - Office of Submissions and Intellectual Property
  - Office of Planning, Performance and Review Services
  - Bureau of Cardiology, Allergy and Neurological Sciences
  - Bureau of Gastroenterology, Infection and Viral Diseases
  - Bureau of Metabolism, Oncology & Reproductive Sciences
  - Bureau of Pharmaceutical Sciences
  - Bureau of Policy, Science and International Programs
  - Bureau of Education, Allergy and Neurological Sciences
  - Bureau of Cardiology, Infection and Viral Diseases
  - Bureau of Metabolism, Oncology & Reproductive Sciences
  - Bureau of Pharmaceutical Sciences
  - Bureau of Planning, Performance and Review Services
  - Bureau of Submissions and Intellectual Property
  - Bureau of Risk Management
  - Bureau of Planning, Performance and Review Services
  - Bureau of Submissions and Intellectual Property
  - Bureau of Risk Management

Shared Services
- Corporate Services Branch
- Portfolio Audit & Accountability Bureau
- Emergency Management
- International Affairs
- Evaluation Directorate
- Communications & Public Affairs Branch
- Corporate Services Branch
- Portfolio Audit & Accountability Bureau
- Emergency Management
- International Affairs
- Evaluation Directorate

560 Employees
 scientists, physicians, technicians, analysts, biostatisticians, administrators and managers
Health Canada is the federal department responsible for helping the people of Canada maintain and improve their health.

**Mission Statement**

*Be Happy*

"There’s no instant answer, if people follow this, everything else falls into place."

**Outline**

1. Overview of Health Canada:
   - Location
   - Organizational Structure
   - Health Canada Mission Statement

2. What Health Canada does:
   - Pharmaceutical Life Cycle in Canada
   - Health Products and Food Branch
   - How do we Regulate?

3. Jobs at Health Canada:
   - Health Canada as Employer
   - Applying for a Job at Health Canada
   - Candidate Selection Process

**Pharmaceutical Life Cycle in Canada**

- Pre-market
  - Preclinical Studies
  - Clinical Trials
  - Regulatory Product Submission
  - Scientific Review
  - Preclinical
  - Clinical
  - Quality
  - Label
- Post-market
  - Market Authorization Decision
  - Public Access
  - Surveillance and Inspection
  - Reconsiderations & Updates

**Data for One New Drug Submission**

Review time for a new drug product is about 1 year

**Health Products and Food Branch**

- All drugs sold in Canada must be authorized by Health Canada
- As of 2013:
  - About 13,076 marketed human drugs (Rx 9,876, Non-Rx 3,200)
  - About 6,575 human drugs approved, but not marketed
  - About 474 disinfectants approved, but not marketed
  - About 1,078 marketed disinfectants
  - About 1,078 disinfectants approved, but not marketed
- All clinical trials conducted in Canada must be approved by Health Canada
- About 1,400 Clinical Trials are submitted to Health Canada for approval every year
How do we Regulate?

- Acts (ex. Food and Drug Act), Policies
- Guidelines: Canadian, International
- Templates, SOPs
- Standardized Regulatory Framework
- Evaluation and Communication of Risks and Benefits

**Efficacy**: the extent to which a treatment achieves its intended purpose and produces a beneficial result (indications, dosage schedules in adults and special populations)

**Safety**: the relative risk of harm (Contraindications, Warnings, Precautions, Adverse Reactions, Overdose)

**Quality**: accepted standards for the manufacturing and testing of drug products (Stability, Impurities, Performance characteristics, Sterility)

- Risk assessment, Risk/benefit assessment, Hazard assessment
- Characterize risks and develop strategies to manage them

---

**Example**

- A drug intended for the treatment of cancer may result in severe nausea. In weighing the benefits and risks, HC would consider the benefit (treating cancer) to outweigh the risk (nausea).

- However, for a drug treating a common cold, HC would be unlikely to consider severe nausea an acceptable risk.

- Lastly, for something like chronic pain management, the risk tolerance may be left up to the physician/patient through product labeling.

---

**Additional Resources**

Where to find Product Monographs:
Health Product Database

How to do a basic toxicology risk assessment:

Internationally accepted guidelines for drug safety, efficacy and quality:

### Outline

1. Overview of Health Canada:
   - Location
   - Organizational Structure
   - Health Canada Mission Statement

2. What Health Canada does:
   - Pharmaceutical Life Cycle in Canada
   - Health Products and Food Branch
   - How do we Regulate?

3. Jobs at Health Canada:
   - Health Canada as Employer
   - Applying for a Job at Health Canada
   - Candidate Selection Process

### Health Canada as Employer

- "National Capital Region’s Top Employer"
- "Canada’s Best Diversity Employer"
- Competitive pay
- Benefits (medical, employment insurance)
- Pension
- Interesting and meaningful work
- Work/life balance
- Unionized
- Some dependence on political climate
Applying for a job at Health Canada

- Jobs.gc.ca
- All current job openings in the Federal public service
- Special programs for students and graduate students
- Tips and suggestions on applying
- How to get ready for the job interview

Candidate Selection Process

1. Application
   Note closing date, keep a copy for reference

2. Screening
   Candidate must meet statement of merit criteria

3. Assessment

4. Development of Pool

5. Selection of Candidate from Pool

6. Right Fit Interview

Candidate Selection Process

1. Application
   Note closing date, keep a copy for reference

2. Screening
   Candidate must meet statement of merit criteria

3. Assessment

4. Development of Pool

5. Selection of Candidate from Pool

6. Right Fit Interview

Statement of Merit Criteria

- Essential qualifications
  - Refer to attributes the person must have to perform the work.
  - Ex. Education, experience, official language proficiency, knowledge, abilities, occupational certification

- Asset qualifications
  - Refer to personal attributes that are beneficial to the work and not essential.
  - Ex. A master’s degree or speak Spanish

- Organizational needs
  - Refer to the needs of the organization more than the position, that are required to help achieve its mandate.
  - Ex. The need to meet objectives for youth recruitment

- Operational requirements
  - Refer to the needs of the position, rather than qualities of the person.
  - Ex. Shift work or the need to travel

You need to demonstrate that you meet all of essential and as many of asset qualifications as you can.

Meeting the Merit Criteria

Take note of the key words that appear in the job posting

Use concrete examples:

- STAR Framework
  - What was the Situation?
  - What was your TASK?
  - What Action did you take?
  - What was the Result?

This will provide the screening board with enough scope to assess your experience and will best present any transferable experience

If you were successfully screened in, you’ll be assessed against all of the Essential qualifications & some or all of the Asset qualifications

Organizational Structure

- Director General’s Office
- Medical Devices Bureau
- Office of Planning, Performance and Review Services
- Office of Clinical Trials
- Office of Submissions and Intellectual Property
- Office of Risk Management
- Bureau of Policy, Science and International Programs
- Bureau of Cardiology, Allergy and Neurological Sciences
- Bureau of Gastroenterology, Infection and Viral Diseases
- Bureau of Metabolism, Oncology & Reproductive Sciences
- Bureau of Pharmaceutical Sciences
- Bureau of Therapeutic Products
- Bureau of Policy, Planning and International Affairs
- Office of Consumer and Public Involvement
- Resource Management and Operations Directorate
- Policy, Planning and International Affairs Directorate
- Office of Nutrition Policy and Promotion
- Therapeutic Products Directorate
- Bureau of Pharmaceutical Sciences
- Biologics and Genetic Therapies Directorate
- Food Directorate
- Natural Health Products Directorate
- Marketed Health Products Directorate
- Veterinary Drugs Directorate
- Office of Clinical Trials
- Office of Submissions and Intellectual Property
- Office of Risk Management
- Bureau of Policy, Science and International Programs
- Bureau of Cardiology, Allergy and Neurological Sciences
- Bureau of Gastroenterology, Infection and Viral Diseases
- Bureau of Metabolism, Oncology & Reproductive Sciences
- Bureau of Pharmaceutical Sciences
Conclusion

Health Canada is employer to thousands of scientists

Wide spectrum of scientific jobs to ensure that Canadians can maintain and improve their health

Risk characterization and risk management is common to many positions

Health Canada is a very attractive employer

Use jobs.gc.ca to apply

See you in Ottawa!