

# Science Day Presentation

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# Agenda

- The Commercial Anatomy
- Your Competition is My Competition
- Fine Tuning Excellence



# AstraZeneca

## Globally

- AstraZeneca globally invested approximately \$5 billion (US) in 2008 R&D
  - 12,000 people focused on research and development.

## Canada

- Approximately 2 million Cdns. are taking an AstraZeneca product.
- Invests more than \$100 million annually in R&D. Among the top 30 contributors to R&D in Canada.
- More than 1,150 employees in Canada.
- Dedicated to supporting a wide range of Canadian charitable and educational initiatives.
  - Over 300 community-based sponsorships across the country.



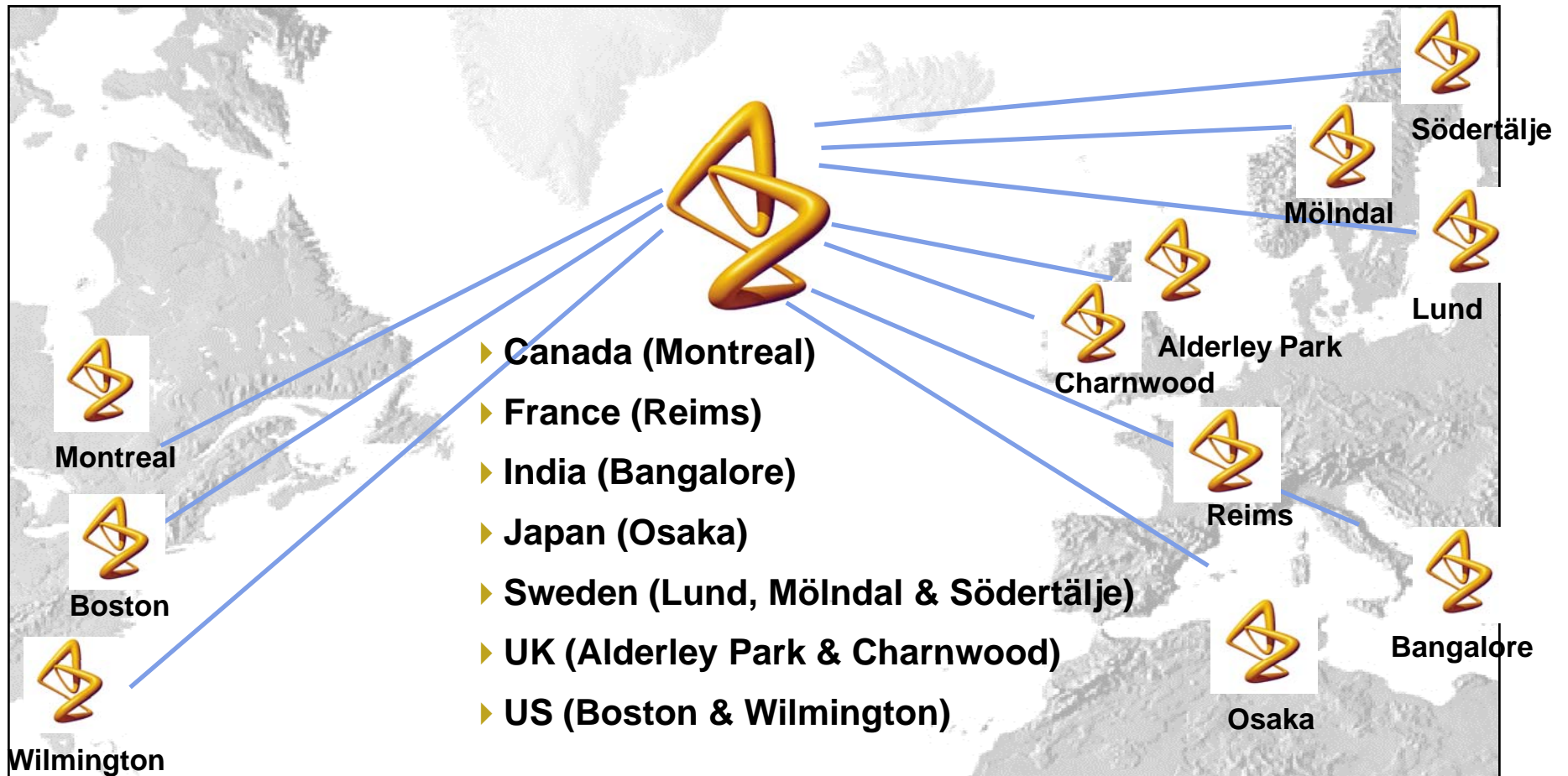
## Our Canadian Commitment to R&D

- In 2008, conducted more than 226 clinical studies in Canada, involving approximately 1,300 medical practitioners and 12,800 patients.
- AstraZeneca R&D Montreal (AZRDM) - world-class Basic Pain Research Centre established in 1994.
  - One of only several basic research centres in the Canadian pharmaceutical industry.
  - More than 100 scientists focused on discovering innovative therapeutic solutions to treat acute and chronic pain.





# Our Global Commitment to R&D



Globally managed research organizations at 11 sites located in 7 countries.



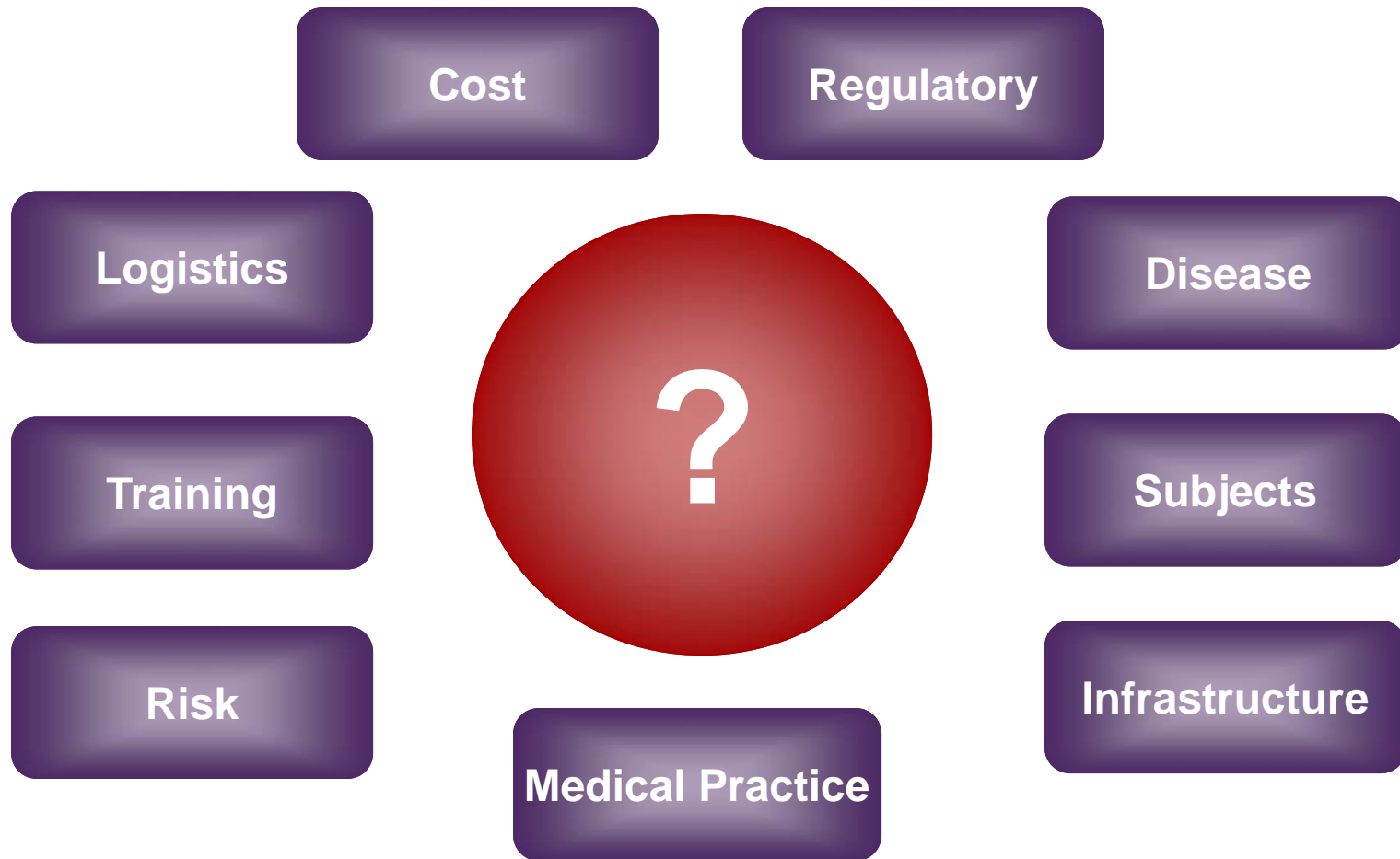


# My Competition





# Global Trial Placement Decision Making



**Socio/Economic/Political Environment Factors also Relevant.**



# Globalization of Clinical Trials

Ranking	Country	Region	# of Sites	Shares (%)	ARAGR (%)	Trial Capacity
1	United States	North America	36281	48.7	-6.5	43.7
2	Germany	Western Europe	4214	5.7	11.7	10.9
3	France	Western Europe	3226	4.3	-4.0	9.6
4	Canada	North America	3032	4.1	-12.0	8.6
5	Spain	Western Europe	2076	2.8	14.9	6.8
6	Italy	Western Europe	2039	2.7	8.1	6.7
7	Japan	Oceania	2002	2.7	10.3	33.4
8	United Kingdom	Western Europe	1753	2.4	-9.9	7.6
9	Netherlands	Western Europe	1394	1.9	2.1	6.8
10	<i>Poland</i>	<i>Eastern Europe</i>	<i>1176</i>	<i>1.6</i>	<i>17.2</i>	<i>5.3</i>
11	Australia	Oceania	1131	1.5	8.1	5.4
12	<i>Russia</i>	<i>Eastern Europe</i>	<i>1084</i>	<i>1.5</i>	<i>33.0</i>	<i>5.8</i>
13	Belgium	Western Europe	986	1.3	-9.4	5.2
14	<i>Czech Republic</i>	<i>Eastern Europe</i>	<i>799</i>	<i>1.1</i>	<i>24.6</i>	<i>4.5</i>
15	<i>Argentina</i>	<i>Latin America</i>	<i>757</i>	<i>1.0</i>	<i>26.9</i>	<i>4.8</i>
16	<i>India</i>	<i>Asia</i>	<i>757</i>	<i>1.0</i>	<i>19.6</i>	<i>5.8</i>
17	<i>Brazil</i>	<i>Latin America</i>	<i>754</i>	<i>1.0</i>	<i>16.0</i>	<i>5.1</i>
18	Sweden	Western Europe	739	1.0	-8.6	5.1
19	<i>Mexico</i>	<i>Latin America</i>	<i>683</i>	<i>0.9</i>	<i>22.1</i>	<i>4.0</i>
20	<i>Hungary</i>	<i>Eastern Europe</i>	<i>622</i>	<i>0.8</i>	<i>22.2</i>	<i>4.1</i>
21	<i>South Africa</i>	<i>Africa</i>	<i>553</i>	<i>0.7</i>	<i>5.5</i>	<i>4.3</i>
22	Austria	Western Europe	540	0.7	9.6	3.8
23	<i>China</i>	<i>Asia</i>	<i>533</i>	<i>0.7</i>	<i>47.0</i>	<i>5.3</i>
24	Denmark	Western Europe	492	0.7	9.2	4.4
25	<i>South Korea</i>	<i>Asia</i>	<i>466</i>	<i>0.6</i>	<i>17.9</i>	<i>3.4</i>



# Countries are Competing

## India

- Clusters: Genome Valley and Bangalore Bio
- Tax incentives for R&D; especially for clinical research
- Growing contract research market
- Clinical trials at half the cost per patient of Canada

## China

- Clusters in Beijing and Shanghai
- 5 yr-plan to invest 2.5% of GDP in R&D -\$87b
- Bank loans, grants, and R&D tax credits for new companies
- Excellent in discovery research at very low cost
- Rapidly expanding clinical trials sector

## Boston & San Francisco – early biotech adopters

- Solid research base, master contracts, excel at commercialization
- \$1.1 billion NIH funding (1999)
- \$7.9 billion in pharma-biotech alliances
- \$400 million per year venture capital investment
- 8 new biotechs per year
- 79 large biotech firms (>100 employees)
- 350 biotech patents per year

## New York & Philadelphia – Big Pharma HQ

- Strong research base
- \$989 million NIH funding (1999)
- \$2.82 billion in pharma-biotech alliances
- \$90 million per year venture capital investment
- 3 to 4 new biotechs per year
- 46 large biotech firms (>100 employees)
- 500 biotech patents per year



# So What Do We Need to Do...?

## What do we have in Canada?

- Great academic institutions.
- Excellent science.
- Supportive governments.

## What might we think about?

- Patents vs. publications.
- 'D' = development and isn't a 'dirty' word.
- Harmonizing contracts.
- Aligning ethical approvals.

**Above all, collaborate to succeed.**