



I-123 The Future is Now

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I-123 The Future is Now

- **Who is MDS Nordion?**
- **What do we do?**
- **How do we make I-123?**
- **Growth of I-123**
- **I-123 Radiopharmaceuticals**
- **Myths surrounding I-123**



Who is MDS Nordion?

- Part of MDS Inc. 8,000 people in 25 countries.
Traded as MDZ on NYSE
- Nordion supplies over half of the world's reactor produced isotopes, including Mo-99, I-131, Xe-133, I-125
- Built MAPLE reactors to ensure reliable supply of medical isotopes.
- Gamma Sterilization Division
- Production facilities in Vancouver & Ottawa, Canada and Fleurus, Belgium



Nordion as Radiopharmaceutical Manufacturer

- **Bexxar - GlaxoSmithKline**
- **Zevalin – Biogen Idec**
- **TheraSphere – MDS Nordion**
- **Gliasite RTS – Cytoc Corporation**
- **Altropane - Boston Life Sciences**
- **Zemiva – Molecular Insight
Pharmaceuticals**

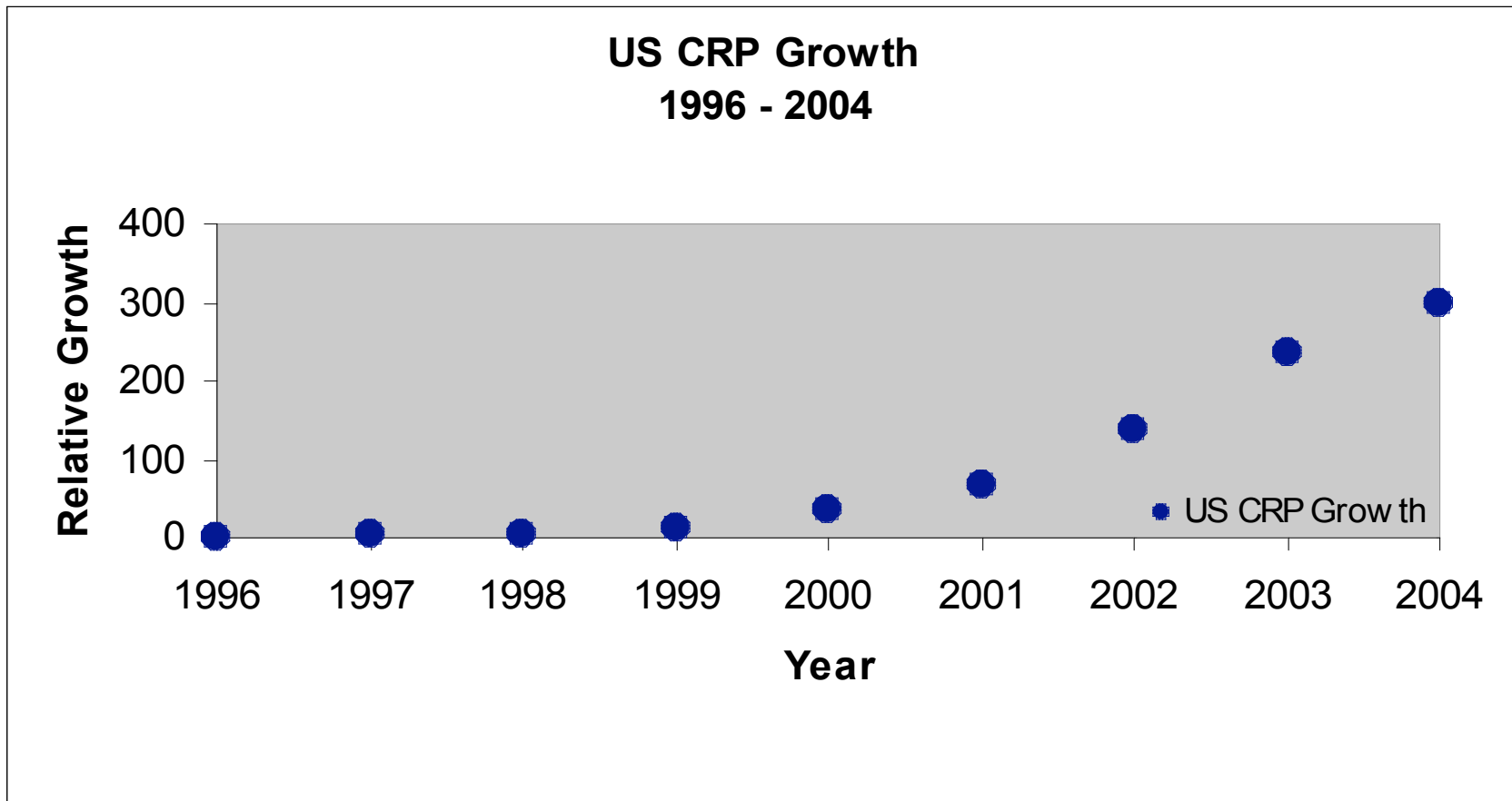


Nordion's I-123 capabilities

- MDS Nordion pioneered carrier free, high purity I-123 production system – we build them!
- In-house I-123 radiochemistry expertise
- High yield Xe-124 gas target
- $\text{Xe-124 (p,2n) Cs-124} \rightarrow \text{Xe-123} \rightarrow \text{I-123}$
- Dry and Solution form, Custom Concentration
- Vancouver – 3 cyclotrons and 3 I-123 systems
- Fleurus – 1 cyclotron and 1 I-123 system



I-123 Growth in Nuclear Pharmacies





I-123 what is it used for?

- **I-123 MIBG**
- **I-123 Whole Body Scanning**
- **I-123 Altropane**
- **I-123 BMIPP – Zemiva**
- **I-123 β -CIT**
- **I-123 ADAM, I-123 IMPY, I-123 IBZM**



I-123 Myths

- **1. It is not available**
 - **3 machines – 3 systems**
 - **I-123 produced 5 days per week**
 - **Lots of production capacity**



I-123 Myths

- 2. Can't get it reliably - half life 12.3 hours
 - Private charter
 - Freight forwarder
 - Airnet (vast majority) or commercial carrier

on time deliveries?

> 99.5%



I-123 Myths

- **3. It is expensive.**
 - **Ok – may be partially true because**
 - Its short half life
 - Complex and expensive production
 - Distribution requirements

 - **But, it is a valuable isotope**
 - Excellent chemistry + excellent targeting
 - Excellent images
 - I-123 radiopharmaceuticals demand a premium



Summary

- **More information?**
 - www.MDS.Nordion.com for more information
 - I-123 Home
 - FAQ
 - I-123 Community
 - Availability
 - Ordering and Product information
 - I-123 Scientific Forum
 - **1-800-267-6211**