Cluster, Clump or Clutter?
Life Sciences in Halifax
An Update

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Overview

1. Geography of Life Sciences
2. The Life Sciences Sector
3. Key Players
4. Place as a Resource
1. Geography of Life Sciences
Life Sciences within 100 kms of Halifax

- PEI
- NB
- NS
- 30 km
- Truro
- Halifax
- Kentville
- Bridgewater
- RI
- U
- C-2
- C-3
- Research institute
- Civic association
- Hospital
- Company
- Government
- University
Life Sciences in Halifax

[Map of Life Sciences in Halifax with locations labeled as Bedford, C-3, C-2, CA, C-4, RI, G, U, and Dartmouth.]
2. The Life Sciences Sector
# Company Interviews/Focus

<table>
<thead>
<tr>
<th>Done</th>
<th>To do</th>
<th>Refused</th>
<th>No reply</th>
<th>Closed</th>
<th>Total</th>
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<td>10</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>28</td>
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</tbody>
</table>

**Focus:**

- Human health: 19
- Devices/IT: 3
- Agriculture/forestry: 2
- Environment: 1
- Other: 3

**Total:** 28
## Non-company Interviews

<table>
<thead>
<tr>
<th>Category</th>
<th>Organizations</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civic Associations</td>
<td>BioNova, Greater Halifax Partnership, Life Sciences Development Association</td>
<td>3</td>
</tr>
<tr>
<td>Government</td>
<td>ACOA, Industry Canada, IRAP</td>
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<tr>
<td>Research institutions</td>
<td>NRC, Nu-Tech</td>
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<tr>
<td>Venture capitalists</td>
<td>ACF Equity, MedInnova Partners</td>
<td>2</td>
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<tr>
<td>Other</td>
<td>Genome Atlantic, IP lawyer, BioMed Management</td>
<td>3</td>
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</tbody>
</table>
3. Key Players
Two Companies on the Move

MedMira

- Rapid testing kit for HIV and Hepatitis
- Just received FDA and SDA (China) approval
- Research originated at Acadia University in 1994
- Significant private financing from Ontario
- $2 m R&D spending & <$0.5 m revenues in 2002

Ocean Nutrition Canada

- Dietary supplements and functional food ingredients
- Part of Clearwater Fine Foods Group. Significant private financing
- Fish by-products used for alternative medical treatments
- Strong ties to NRC & Dalhousie
- $4 m R&D spending & $10 m revenues in 2000
Dalhousie University

NU-Tech
Fusogenix
Nova Neuron
Oncodynamics

Medical School

BioMed
Mgmt

Biology
Immuno
Vaccines

Oceanography
Pro-Oceanus

Brain Repair Centre
Founding partners:
Dal, NRC, QEII Health Sciences Centre & IWK Health Centre
Institute for Marine Biosciences, NRC

Conducts research in key areas of marine biosciences & genomics

New partnership facility will house 10–12 SMEs

InNOVAcorp Incubators

Halifax. Includes:
BioNova
Britech Information Systems
Genome Atlantic
Immuno Vaccines
Ocean Nutrition Canada
Pro-Oceanus

Dartmouth. Includes:
Bridco Values
Chitogenics
Government & Civic Associations

- ACOA
- Industry Canada
- NRC
- NS Business Inc
- BioNova
- LSDA
- Genome Atlantic
- GHP
- InNOVAcorp
Venture Capitalists

“There are only about 10 investment opportunities here, of which two or three will move forward. The focus should be on the marine sciences”

“The research base here is small but very good ... the entrepreneurial culture is poor”
4. Place as a Resource
Local Interaction

“Do you consider your company to be part of a network of related firms in your region/locality, i.e., a cluster?”

“Yes”—3 companies

“No”—4

“Feel connected with institutions, e.g. National Research Council but not other firms”—1

“Relative youth & niche orientation of local companies rules out any possibility of a lead or anchor firm that might facilitate tighter linkages”—1
### Factors Aiding Growth

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<td>Supply of workers with particular skills</td>
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<tr>
<td>Physical, transportation or communications infrastructures</td>
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<tr>
<td>Availability of financing</td>
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<tr>
<td>Specialized research institutes &amp; universities</td>
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<tr>
<td>Specialized training or educational institutions</td>
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<td>Presence of key suppliers&amp;/or customers</td>
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<td>Government policies or programs</td>
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## Factors Inhibiting Growth

<table>
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Use Local Service Providers

“Yes” 2
“No” 1
Accountants 4
Public relations 1
Patent agents/ investigators 2
Patent lawyers 0 (Ottawa & San Diego)
Law firms 1
Local Challenges

Financing  
Cash flow  
Others:
  Keeping strategic focus  
  Global distribution  
  Experienced scientists & leaders  
  Small company size
Cluster?
Clump?
Clutter?
No conclusions yet

Questions & comments are welcomed