Cincinnati Children’s & Ben Gurion

Pediatric Device Collaboration
Cincinnati Children’s Overview

Our vision: to be the leader in improving child health

• Non-profit pediatric academic medical center, established in 1883
  – 577 Bed Hospital, 13 locations
  – US News Top 3 Pediatric Hospital
  – Highest Volume Pediatric Emergency Department in the United States
  – Aligned with University of Cincinnati

• Second highest recipient of NIH grants for pediatric research
  – ~1MM square feet of research space
## Cincinnati Children’s: the rankings

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Clinical</strong></td>
<td>• 1 of 10 Honor Roll Pediatric Hospitals*</td>
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<td>• First in Digestive Disease; top 5 for 6/10 specialties</td>
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<td><strong>Education</strong></td>
<td>• #3 Dept of Pediatrics in US*</td>
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<td>• In class with Harvard and Penn)</td>
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<td><strong>Research</strong></td>
<td>• #2 NIH funding in pediatric research (second only to Boston Children’s)</td>
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<td>• $307MM expended in FY11</td>
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<td><strong>Infrastructure</strong></td>
<td>• #1 in healthcare IT innovations**</td>
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<td><strong>Economic Impact</strong></td>
<td>• 2008 study = $2.7BB impact; 25k jobs</td>
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<td>• 30% increase since 2008 = est $3.5BB impact</td>
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*US News & World Report

**Information Week
Our Research Engine

• Breakthrough discovery to improve child health:
  – Sabin Polio Vaccine
  – Heart-lung machine
  – Surfactant
  – Rotarix

• Medical Research is the engine of CCHMC
  – 600 faculty and strong continued recruitment
  – Development of superior clinical programs based on research and discovery

• In FY2011, CCHMC expended over $307 million on research –
  basic, clinical, translational - and received over $150 million in
  sponsored research funding
Center for Technology Commercialization (CTC)

998 Inventions Disclosed
1366 Patent Apps Filed
361 Patents Issued
204 Licenses
4,949 IP Agreements
8 Start Up Companies
$73MM Revenues
Funding the Continuum

Research Funds
• Basic & translational (Internal, Federal, Foundations & Industry)
• Scientific hypotheses

Innovation Fund & BG3C Fund
• Proof of Concept
• Drive value & commercial potential of “product”

Tomorrow Fund
• Seed for Children’s Start-ups
• Progress to venture fundable company

Pediatric Venture Fund
• Institutional venture partnership
• Growth of pediatric companies & products to market
Cincinnati Children’s Commercialization Successes

- GSK: Rotarix™ rotavirus vaccine
- Multiple companies: hemofiltration system
- Shire: LAL therapy for metabolic diseases
- Ligocyte/PATH: norovirus and rotavirus vaccines
- AssureRx: neuropsychiatric pharmacogenomics
- SpineForm: spine staple for scoliosis
- Enable Injections: painless injection device
Israel Exchange Program (IEP)

- Israeli & Cincinnati Children’s Physicians Jointly Treat Complex Patients

- Clinical & Research Fellowships

- Short-term Training
  - Physicians, Nurses, Students, Paraprofessionals & Administrators

- Collaborative Research Grants

- Co-sponsoring/Hosting Conferences

- Commercialization Collaborations
Israel: Entrepreneurialism, innovation, education, research & technology

CCHMC: complex pediatric care, breakthrough research advancements, leader in education & quality improvement

- Improve clinical care for children worldwide
- Expertly train pediatric providers & scientists
- Achieve breakthrough research discoveries
- Invent, develop & commercialize products to improve child health globally

Cincinnati Children’s
Israel Exchange Program
Our Collaboration: BG3C

Cincinnati Children’s
- World-class research & clinical capabilities
- Continuum of sustainable funding
- Acceleration of commercialization efforts across entire Cincinnati ecosystem
- IEP infrastructure & collaborations

BG3C
- Accelerate the invention, developments and commercialization of medical devices to profoundly improve the care and treatment of pediatric patients in Israel, the US and globally

BGU/BGN
- Entrepreneurial start-up culture
- Dynamic staff of engineers, researchers and scientists
- Cutting edge knowledge and capabilities across a broad spectrum of technological disciplines