“NIH can wage an effective war on disease only if we – as a nation and a scientific community, not just as a single agency – harness the energies of many disciplines, not just biology and medicine. These allied disciplines range from mathematics, engineering, and computer sciences to sociology, anthropology, and behavioral sciences. But the weight of historical evidence and the prospects for the future place physics and chemistry most prominently among them.”

Harold Varmus
As Director of NIH, now President, Memorial Sloan-Kettering Cancer Center
Nobel Prize, 1989
Strengthening the St. George’s University School of Medicine-NJIT Partnership

- Why?
- Overview of medical education
- Overview of St. George’s University School of Medicine
- Current SGU SOM-NJIT partnership
- Proposed strengthening of the partnership
- Rationale
- Concerns
- Questions/discussion
Strengthening the St. George’s University School of Medicine-NJIT Partnership

• Why?
  • Improved preparation of undergraduate students entering the life-sciences related programs
  • Natural evolution of effort to establish the life-sciences at NJIT
  • Address increased competition
  • Enhanced opportunities in research through interaction with medical clinicians
  • Continues to broaden the university
  • Generates a revenue stream
Steps in Medical Education

- BS or BA (4 yrs)
- MD (Medical School)
  - Basic Science (2 yrs)
    - In residence at Medical School
  - Clinical Science 2 yrs)
    - In residence at Hospital
    - Clinical Clerkship
- Board Certification (Graduate Medical Education)
  - In residence at Hospital
  - Resident (3-7 yrs; teach Clinical Clerkships; partially Medicare funded)
  - 1st yr-Intern (no longer used)
- Fellow
  - In residence at Hospital
  - Subspecialty Resident
Strengthening the St. George’s University-NJIT Partnership
St. George’s University

• Founded as St. George’s University School of Medicine in Grenada in 1976 by four individuals
• School of Arts and Sciences and Graduate Studies Program chartered in 1996
• School of Veterinary Medicine founded in 1999
• Has awarded about 8,500 MD degrees (7,000 to BS/BA grads of US News Top 100; 500 Ivy League grads)
### Top 15 US Undergraduate Universities at SGU

<table>
<thead>
<tr>
<th>School</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Univ of California/Los Angeles</td>
<td>391</td>
</tr>
<tr>
<td>NY Univ</td>
<td>330</td>
</tr>
<tr>
<td>SUNY/Stony Brook Univ</td>
<td>242</td>
</tr>
<tr>
<td>Univ of California/Irvine</td>
<td>230</td>
</tr>
<tr>
<td>Univ of California/Berkeley</td>
<td>229</td>
</tr>
<tr>
<td>Univ of California/Davis</td>
<td>219</td>
</tr>
<tr>
<td>Univ of Florida</td>
<td>209</td>
</tr>
<tr>
<td>Univ of Toronto</td>
<td>201</td>
</tr>
<tr>
<td>Boston Univ</td>
<td>200</td>
</tr>
<tr>
<td>Univ of California/San Diego</td>
<td>199</td>
</tr>
<tr>
<td>Rutgers Univ/Rutgers Coll</td>
<td>163</td>
</tr>
<tr>
<td>Cornell Univ</td>
<td>163</td>
</tr>
<tr>
<td>SUNY/Binghamton Univ</td>
<td>149</td>
</tr>
<tr>
<td>Univ of Miami</td>
<td>145</td>
</tr>
<tr>
<td>Emory Univ</td>
<td>144</td>
</tr>
</tbody>
</table>
# Geographic Enrollment Breakdown at SGU

<table>
<thead>
<tr>
<th>US Citizens</th>
<th>68%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-US Citizens</td>
<td>32%</td>
</tr>
<tr>
<td>US Permanent Residents</td>
<td>16%*</td>
</tr>
</tbody>
</table>

## International (1,009 Students) % of Non-US Citizens

- **Canada**: 54%
- **Trinidad and Tobago**: 15%
- **United Kingdom**: 5%
- **Grenada**: 4%
- **Botswana**: 3%
- **Other**: 19%

## US (2,779 Students) % of US Citizens

- **California**: 21%
- **New York**: 19%
- **New Jersey**: 11%
- **Florida**: 6%
- **Texas**: 6%
- **Other**: 37%
St. George’s Clinical Centers and Hospitals

Clinical Centers

Saint Barnabas Healthcare System:

Saint Barnabas Medical Center

Monmouth Medical Center

Newark Beth Israel Medical Center
St. George’s Clinical Centers and Hospitals

<table>
<thead>
<tr>
<th>Hospitals</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Atlantic Health System:</strong></td>
<td></td>
</tr>
<tr>
<td>Morristown Memorial Hospital</td>
<td></td>
</tr>
<tr>
<td>Overlook Hospital</td>
<td></td>
</tr>
<tr>
<td>Bergen Regional Medical Center</td>
<td></td>
</tr>
<tr>
<td>Jersey City Medical Center</td>
<td></td>
</tr>
<tr>
<td>St. Francis Medical Center</td>
<td></td>
</tr>
<tr>
<td>St. Michael's Medical Center</td>
<td></td>
</tr>
<tr>
<td>JFK Medical Centre</td>
<td></td>
</tr>
<tr>
<td>Mountainside Family Practice Associates</td>
<td></td>
</tr>
<tr>
<td>Virtua-West Jersey Health System, Inc.</td>
<td></td>
</tr>
</tbody>
</table>
Residency Placement for SGU Graduates

• National Residency Match Program
  • 99% of US eligible graduates obtain residencies generally of 1\textsuperscript{st} or 2\textsuperscript{nd} choice
  • 2010: 450 placed in US
  • 2010: 12% of placements in NJ

• St. Josephs
• Newark Beth Israel
• St. Barnabas
• Trinitas
• St. Peter’s
• Morristown Memorial
• Atlantic City
• St. Michael’s
• Seton Hall

  St. Francis
  JFK Med Ctr
  Atlantic Health
  UMDNJ (Newark)
  Monmouth
  Jersey Shore
  Virtua-West Jersey
  Cooper Hospital
  Burlington Cnty Memorial
SGU MD Program

- Year 1 & 2 - Basic Science including: Anatomy, Biochemistry, Physiology, Micro-biology, Pathology, Pharmacology – Classroom/Laboratory instruction at SGU in Grenada

St. George’s University-NJIT Partnership

- Accelerated BS or BA (NJIT)/MD (SGU) program
  - 3 yrs at NJIT
  - 2 yrs at St. George’s in Grenada (Basic Science)
  - 2 yrs in Clinical Clerkship
  - Clinical Clerkship assignment by St. George’s
  - About 5 or 6 NJIT students per year
Proposal

- NJIT will add to the number NJ MD students in the state by partnering with an established, well-respected off-shore university with an accredited program.
- NJIT will build on a successful partnership with St. George’s University in Grenada that currently enrolls 20 NJIT students in an accelerated BS/MD degree.
- NJIT and SGU will establish a joint MD degree program eligible for accreditation in NJ and other states.
- SGU will teach the traditional first two years of classroom instruction.
- NJIT will teach the traditional final two years of clinical practice.
Enhancing St. George’s University-NJIT Partnership

- Establish the NJIT School of Medicine, Inc.
- Affiliate with NJIT and SGU
- SGU teaches basic science program
- NJIT, SOM, Inc. teach clinical clerkship programs
- SGU manages Yr 1 and Yr 2 of revenue
- NJIT SOM, Inc. manages Yr 3 and Yr 4 revenue
- Joint NJIT-SGU MD degree
- SGU MD degree alternatively accredited in NJ, and other states
- Entrance into program:
  - Accelerated BS or BA (NJIT)/MD (joint NJIT-SGU)
  - 4 yr BS or BA/MD (joint NJIT-SGU)
Rationale for Enhancing St. George’s University-NJIT Partnership

“….less than 12% of physicians licensed in New Jersey graduated from a medical school within the state…..compared to the national average of 29.6% of physicians in a state graduating from an in-state medical school.”

*From 2006 “Report of Touro Committee” of NJ BME*

“The Association of American Medical Colleges is advocating a 30 percent increase in medical school enrollment, which would produce 5,000 additional doctors each year.” *April 26, 2009 NYT*
Research and Academic Program Benefits from Enhancing St. George’s University-NJIT Partnership

- Opportunities for NJIT faculty to build relationships with medical researchers and clinicians
- Increased potential for NIH funding
- Develop better understanding of clinical needs and perspectives
  - Impact on NJIT research and curriculum development
  - Develop interdisciplinary teams to pursue joint research and training programs
- Develop MD/PhD programs
- Enhance PhD programs in bio-related areas
Research and Academic Program Benefits from Enhancing St. George’s University-NJIT Partnership

- Enhanced recruitment of students into NJIT’s undergraduate life-sciences related programs
- Clinical patents and technology transfer

Additional Benefits
- Increased access to medical education in New Jersey
- Increased physician retention in the State
- No financial commitment from the State
Concerns with Enhancing St. George’s University-NJIT Partnership

• What are the academic/research benefits?
  → Enhanced collaborations with clinicians and medical researchers
  → Enhanced recruitment into undergraduate life-sciences programs

• Placement of students into clinical clerkships in NJ hospitals
  → Currently over 300 SGU students in clerkships in NJ
  → Over 250 SGU clerkships are being added over the next few years
Concerns with Enhancing St. George’s University-NJIT Partnership

• Is SGU AMA approved?
  → US based medical schools are accredited by the Liaison Committee on Medical Education (LCME), which is sponsored by the AMA and AAMC
  → SGU SOM is a NJ “alternatively accredited medical school” (medical school outside the US that meets NCFMEA of the USDOEd standards) by the NJ Board of Medical Examiners
Concerns with Enhancing St. George’s University-NJIT Partnership

- What will happen to the revenue?
  - Cover expenses
  - Net allocated back to NJIT academic and research efforts, primarily life-science related programs
- Would this impact rankings like *US News & World Report*?
  - Most important factors in assigning a Peer Review score:
    - Faculty quality
    - UG Student Selectivity
    - UG Programs
Concerns with Enhancing St. George’s University-NJIT Partnership

• What is the purpose of the corporation?
  → Isolates revenues/liabilities from the State university
  → Provides flexibility when dealing with other private entities
  → Funds flow from the corporation to the university, not vice versa
  → Financial construct to simplify auditing
Enhancing St. George’s University-NJIT Partnership

Finances (F&A Indirect Cost)

- Clinical program tuition per yr $49,333
- Clinical program hosp fee per yr ($16,000)
- Net revenue per student/yr $33,333
- Net revenue 100 students/yr $3,333,300
- Est personnel (8) ($920,000)
- Operating (50% indirect cost) ($460,000)
- Net revenue per yr $1,953,300
Enhancing St. George’s University-
NJIT Partnership

Finances (Per student expenditure)

- Clinical program tuition per yr $49,333
- Clinical program hosp fee per yr ($16,000)
- NJIT expenditure per student ($20,000)
- Net revenue per student/yr $13,333
- Net revenue 100 students/yr $1,333,300
Strengthening the St. George’s University School of Medicine-NJIT Partnership

• Why?
  • Improved quality of undergraduate students in the life-sciences related programs
  • Natural evolution of effort to establish the life-sciences at NJIT
  • Address increased competition
  • Enhanced opportunities in research through interaction with medical clinicians
  • Continues to broaden the university
  • Generates a revenue stream