To achieve national recognition as a leading research entity, provide exceptional clinical care encompassing “leading edge” technologies, serve as a first tier educational program, and play a leading role in our community in disseminating high quality health care education.
Accomplishments (2008 - 2011)

Faculty Development
- Faculty recruitment: 20 members (69%); research - 3; 98% retention [1]
- Faculty promotions: 13 (3 to Professor [w/wo Tenure; three pending)

Clinical Growth
- Activity: 1000 cases/yr (25%) in inpatient surgery
- Revenue: $4.4 million (25%) in FFS revenue

Education
- Resident training: 7 point (16%) increase in average ABSITE score
- American Board of Surgery “SCOR” online curriculum national “ambassador”
- Resident class of 2011: GW, Georgetown, UPMC, SB, Jefferson, Michigan

Research
- First annual Department Seed Grant Program: 17 grant (85%) enrollment
- Second annual Department Research Day (45 posters and presentations)
The Department of Surgery: A Vital Key to SBUMC

• Our clinical activity represents 50% of overall SBUH surgical volume.

• Our clinical revenue represents approximately 20% of overall SBUH financial support.

• Our “contribution margin” is a lead contributor to the financial health of our institution.
Department Faculty Growth

**Salaried Faculty**

- **Existing**
  - 2008-2009: 29
  - 2009-2010: 7
  - 2010-2011: 3

- **2008-2009**: 69%

* UPMC, Cleveland Clinic, Temple, Georgetown, Cornell

- T. Huston
  - Plastics
  - Cornell
- S. Loh
  - Vascular
  - NYU
- A. Pryor
  - Director, Bariatrics
  - Duke (Chief, Gen. Surg.) (Vice-Chair, Clinical)
Department Faculty Growth

Class of 2009

- S. Gupta
  Cleveland Clinic

- J. Huston
  Cornell

- C. Rizk
  Roswell Park

- P. Bao
  UPMC

- P. Denoya
  CCF – Fla.

- J. Ganz
  Georgetown

- D. Landau
  U. Illinois

- W. Smithy
  R.W. Johnson

Class of 2010

- L. Shroyer
  Research
  U. Colorado

- M. Marzouk
  ENT
  UPMC

- W. Szermetas
  Peds ENT
  Temple

- V. Brunetti
  Vascular/Podiatry
  Stony Brook
Faculty Recruitment: wRVU vs Years After Hire*

* wRVU MGMA percentile rank: mean and range
Clinical Growth: Monthly Surgical Case Volume*

- Includes general surgery (colorectal, breast, surgical oncology, trauma), ENT, plastics, pediatric surgery, cardiothoracic, vascular

**Monthly Case Volume**

<table>
<thead>
<tr>
<th>Month</th>
<th>100</th>
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</tbody>
</table>

**Total surgery:**

- FY 08/09 vs FY 07/08
  - 6683 vs 6360 (+5%)
- FY 09/10 vs FY 08/09
  - 7392 vs 6683 cases (+11%)
- FY 10/11 vs FY 09/10
  - 7865 vs 7392 (+6%)

*Includes general surgery (colorectal, breast, surgical oncology, trauma), ENT, plastics, pediatric surgery, cardiothoracic, vascular
Clinical Growth:
Monthly Inpatient Case Volume

*General surgery values: (x/2; includes breast, surg onc, and colorectal)
Clinical Growth:
Office Visits

25% increase in new patient visits (2010 vs. 2008)
Keys to Growth

Programs of Excellence

Outstanding Quality
  • Patient and Physician service
  • Resident and Student Education

Clinical outreach
  • Community Presentations: CME and Community
  • Media: Traditional and “Social Networking”
  • Academic

Research
Programs of Excellence

IRE

Aortic Stenting

Bariatric Surgery (2011)

Hybrid OR
Percutaneous valve, “Debranching” TEVAR (2011/2012)
Programs of Excellence

Salivary endoscopy
(Region’s first and only)

Robotic
Head & neck surgery
MIDCAB
Pancreatic & CR surgery

VAD
National Reference Center
(Only 3 of 32 non-transplant centers)

Cardiac Gene Transfer
(coming in 2011-2012)
Clinical Quality:
NSQIP Overall* Mortality

Odds Ratio: 1.02

* Includes General (Colorectal, UGI) and Vascular Surgery Cases (2010)
Renal Failure | Odds Ratio: 0.97

Colorectal Mortality | Odds Ratio: 0.95

Vascular SSI | Odds Ratio: 0.92

Pneumonia | Odds Ratio: 0.78
Department of Surgery Multi-Disciplinary Rounds
- All surgery services
- 0830H rounds daily
- Senior nursing/physician presence

Mean monthly discharge times: April to June, 2010

Clinical coordinators on Breast/Plastics and Vascular Surgery service
Clinical Outreach:
Expansion West to Smithtown

- Opened 5/2010
- 2,000 sq ft: 5 exam, 2 consult, 1 minor procedure room
- Funded through Surgery UFPC [$250K]
- 20 sessions/week
- 230 patients/month (Utilization ≈ 75%)
- Services: colorectal, breast, plastics, general, CT
- Cost: $260/session (without build-out costs)

Increasing number of direct-to-practice calls and referrals
Clinical Outreach: Beyond Smithtown (Beyond Suffolk Co.)

**Satellite Office Expansion**
- Smithtown established (2010)
- Huntington “leapfrog” (2012)
  - “State of the art” access
  - Vascular and plastics surgicenter
  - Cardiovascular screening

**“Virtual” Expansion**
- Web redesign (400 new pages)
- 3,000 [2x ↑] visits Month 1
- SEO consult
- Social Networking
Clinical Outreach:
“Asymmetric” Physician to Physician Strategies

**Hospital-Based**
- Peconic Bay (Thoracic)
- Brookhaven (Vascular/Thoracic)
- Good Samaritan (Pediatrics/trauma/surgery residents)
- Southampton (Vascular)
- Mather (Cath lab support)

**Physician-Based**
- Cardiology captives (ESC, NSC, HALI)
- Colorectal affiliates (Southside)

**Education-Based**
- National Venous Forum
- “CME Saturday”
- Post-Op Newsletter
- Grand Rounds and Seminars
- Community Screenings (vascular, oncology)

2nd Annual Venous symposium at LGA Marriott
| J. Ganz: Doctors: Outlook 'excellent' for man's reattached hand | June 11, 2010 ridgely.ochs@newsday.com |
| J. Ganz: Stony Brook amputates woman's toe to replace thumb | June 21, 2010 ridgely.ochs@newsday.com |
| A. McLarty: First LI patient gets new 'heart' at Stony Brook | April 13, 2010 delthia.ricks@newsday.com |
| S. Sandoval: LI boy who was burned by heater has a message | January 31, 2011 candice.ferrette@newsday.com |
| C. Pameijer: LI doctors testing heated chemo for rare cancer | March 1, 2009 delthia.ricks@newsday.com |
| J. Vosswinkel: Flanders woman defies odds after car crash | Updated: June 19, 2011 |
Community Outreach: Market Presence

Marketing Support
Clinical growth
Basis for philanthropy

“In-Reach” vs. “Outreach”

Awareness of General Surgery Service Line (%)
Education & Training: Advanced Curriculum Activities

- Surgery Simulation Lab
- Technical “Olympics”
- Research training
- Research Day and Research Requirements
- Curriculum Enhancements
- “SCORE” Links
- CASL (Critical Analysis of the Surgical Literature)

Repair of Acute Myocardial Infarction by Human Stemness
Factors Induced Pluripotent Stem Cells

Timothy J. Nelson, MD, PhD; Almudena Martinez-Fernandez, PharmD; Satsuki Yamada, MD, PhD;
Carmen Perez-Terezic, MD, PhD; Yasuhiro Ikeda, DVM, PhD; Andre Terezic, MD, PhD

Background: Nuclear reprogramming provides an emerging strategy to produce embryo-independent pluripotent stem cells from somatic tissue. Induced pluripotent stem cells (iPS) demonstrate aptitude for de novo cardiac differentiation, yet their potential for heart disease therapy has not been tested.
Education & Training: Extracurricular Events

- Resident “Jeopardy”
- ACS Travelling Fellowship
- Mission to Babahoyo, Ecuador
Resident Education:
ABSITE Historical Trends

[Diagram showing national percentile trends for different years (2006 to 2011) across PGY 1 to PGY 5 and annual mean.]
Resident Recruitment: Level I USMLE Scores

Incoming USMLE scores:
- 2011 - 230
- 2008 - 215
Research Initiatives

• Seed Grant Program: 4 x $15K (85% junior faculty participation)
  - Inter-departmental peer review
  - “Mentored” grant development
  - Goal: “Fundable preliminary data and/or manuscript publication(s)

• T32 submission
  - 34 faculty members with cardiovascular research interests
  - Shroyer/Rosengart PIs
  - Critique: “Faculty well funded [with] depth in translational research expertise”

• Department Research Committee and standing colloquia

• Tissue Bank and Translational Research Collaborations

• Surgery Quality Improvement Database (SQIP/SQDUG) & “Research Mine”

• Resident “Research Day” & Research Requirement
Major Grant Awards

**Department of Surgery Small Grants**

**Philip Bao**, MD  “Therapeutic effects of irreversible electroporation in an in situ pancreatic cancer mouse model”  
(Co-PI: R. Lin, MD/Medicine; H. Crawford, PhD/Pharmacology; and K. Watkins, MD/Surgery)

**Duc Bui**, MD  “Antibiotics in Breast Reconstruction: A Randomized Trial”  
(Co-PI: A. Dagum, MD/Surgery)

**Christine Rizk**, MD  “Do breast cancer patients who smoke have worse outcomes compared to nonsmokers?”  
(Co-PI: M. Evinger, PhD/Pediatrics and Pharmacology)

**Giuseppe Caso**, MD, PhD  “Mesenchymal Stem Cells for Human Colon Cancer Treatment”  
(Co-PI: Peter Brink, PhD/Physiology, Roberto Bergamaschi, MD/PhD/Surgery, and Margaret McNurlan, PhD)

**Walk-For-Beauty Foundation Research Award**

**Jason C. Ganz**, MD  ”Preventing Mastectomy Skin Flap Necrosis with SPY System”  
(Co-PI: Brett T. Phillips, MD/Surgery; Duc T. Bui, MD/Surgery; Sami U. Khan, MD/Surgery)

**FUSION Awards**

**Paula Denoya**, MD  ”High definition profiling of human colorectal cancer methylation”  
(Co-PI: J. Dunn, PhD/BNL; Y. Hu, MD/Path E. Li, MD, PhD/Med W. R. McCombie, PhD/CSHL; W. Zhu, PhD/Applied Math)

**Clinical Research Awards**

**Colette Pameijer**, MD  ”Optimizing Influenza Vaccination in Surgical Oncology Patients”  
(Co-PI: S. Donelan, MD/Medicine; A. Savitt, PhD/Microbiology; K. Watkins, MD;/ P. Bao, MD/Surgery)
Research Results

Cholinergic Regulation of Hemorrhage - Huston

IPS-Derived Cellular Cariomyoplasty - Rosengart
Research Publications:
(Selected) Highlights

Bergamaschi
Non-colonic Cancer Stem Cells in Bone Marrow of Colorectal Cancer Patients. *Colorectal Dis.*

Karas. No rectopexy versus rectopexy…..a randomized controlled trial. *Dis Colon Rectum*

Bao
Phase II study ….for patients with resected pancreatic cancer. *Ann Surg Oncol*

Denoya
Short-term outcomes of laparoscopic total mesorectal excision *Surg Endosc*
Rectal washout and local recurrence of cancer after anterior resection *Br J Surg*

Labropoulos
Gasparis. Prospective…..candidates for thrombolysis in….acute proximal [DVT]. *J Vasc Surg*
Spentzouris G, Gasparis AP, Meissner M. [Recurrent venous thromboembolism.] *Br J Surg*

Shroyer
Cognitive outcomes after on- versus off-pump coronary artery bypass surgery. *Ann Thorac Surg*

Bui
Phillips, Lanier, Khan, Dagum. Antibiotic(s) and… drains in breast reconstruction. *Ann Plast Surg*

Rosengart
Bishawi. Regenerating mechanical function in vivo with skeletal myoblasts. In: *Regenerating the Heart*

Bilfinger
Zemlyak. Sublobar resections and ablative therapies for….cell lung cancer. *J Am Coll Surg*
Awards & Honors

Dr. Vosswinkel: 2011 CPMP Excellence in Clinical Practice Award
Dr. Woods: 2011 Alpha Omega Alpha Honorary Membership (Teaching)
Dr. Polcino: 2011 Alpha Omega Alpha Honorary Membership (Teaching)
Dr. Rosengart: 2011 Distinguished Honoree, American Heart Association
Dr. McLarty: 2011 Woman of the Year in Medicine Award, Town of Brookhaven
Dr. Scriven: 2011 Aesculapius Award for Teaching
Dr. Sorrento: 2011 Excellence in Teaching Award
Dr. J. Huston: 2010 “Outstanding Recent Graduate” Honor
Dr. Shapiro: 2010 Society of Critical Care Medicine Presidential Citation
Dr. Scriven: 2009 Alpha Omega Alpha Honorary Membership
Dr. Dagum: 2009 Leonard Tow Humanism in Medicine Award

Castle Connelly (recent recipients): Drs. Bilfinger, Dagum, Lee, O’Hea, Rosengart, Shapiro, Smithy, Tassiopoulos

Centers of Excellence
Breast Center - NAPBC (Natl Accreditation Pgrm Breast Centers)
Lung Cancer Evaluation Center – NCI designee, ACS Cancer Commiss’n ProvenCare Collab’tive
Research Funding

2008/2009
- NIH: $629,000
- Industry: $221,000
- Other: $40,000

2009/2010
- NIH: $742,000
- Industry: $324,000
- Other: $50,000

2010/2011*
- NIH: $942,000
- Industry: $337,000
- Other: $100,000
- NGO: $30,000

0.9M (08/09) to $1.4M (10/11): ** +55%

*Includes annualized contribution from $1 million Cohen Foundation grant to Cardiac Gene Therapy (TR/RGC)
** Does not include ECRIP funding
## NIH Research Funding

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<th>Organization</th>
<th>Amount Awarded</th>
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<td>DUKE UNIVERSITY</td>
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<tr>
<td>2</td>
<td>UNIV OF PITTSBURGH</td>
<td>$20M</td>
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<td>3</td>
<td>MICHIGAN</td>
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<td>WASHINGTON U.</td>
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<td>UCLA</td>
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<td>STONY BROOK</td>
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*Increase from rank of 61 in 2005

FY 2010; Includes grants awarded in 5 categories: Fellowships, Research, R & D Contracts, Training, and other
Excludes total of 134 accredited Schools of Medicine
Challenges & Solutions: Clinical Improvement Efforts

- Clinical navigators and support
- Electronic medical records
- Risk management
- CQI feedback
- Faculty and resident commitment
## Challenges & Solutions: Future Growth

<table>
<thead>
<tr>
<th>Division</th>
<th>Current Faculty Number</th>
<th>Need/Specialty (Proposed Recruitment FTE)</th>
<th>Faculty Recruitment Level</th>
<th>Reason for Recruitment</th>
<th>Needed Ancillary Support</th>
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<td>Bariatrics (1.5) Critical Care (1.5) MIS (1)</td>
<td>Asst/Assoc. Asst/Assoc. Asst/Assoc.</td>
<td>New program Expansion</td>
<td>(1-3)</td>
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<td>Vascular</td>
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<td>(1)</td>
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<td>Expansion</td>
<td>NP (1)</td>
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<td>Translational Chief Cardiovascular Oncology</td>
<td>Assoc./Prof Assoc./Prof Assoc./Prof</td>
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Challenges & Solutions: Infrastructure & “Room to Grow”

Academic Office Space

OR Expansion

HSC 18th Floor

Hybrid OR (Aortic stenting [TAVI])
Goals & Objectives

• To fulfill our Mission Statement
• Achieve US News and World Report Top 50
  • Achieve NIH Top 40
(Much more unspoken)
….On exciting next steps.

Thank you.