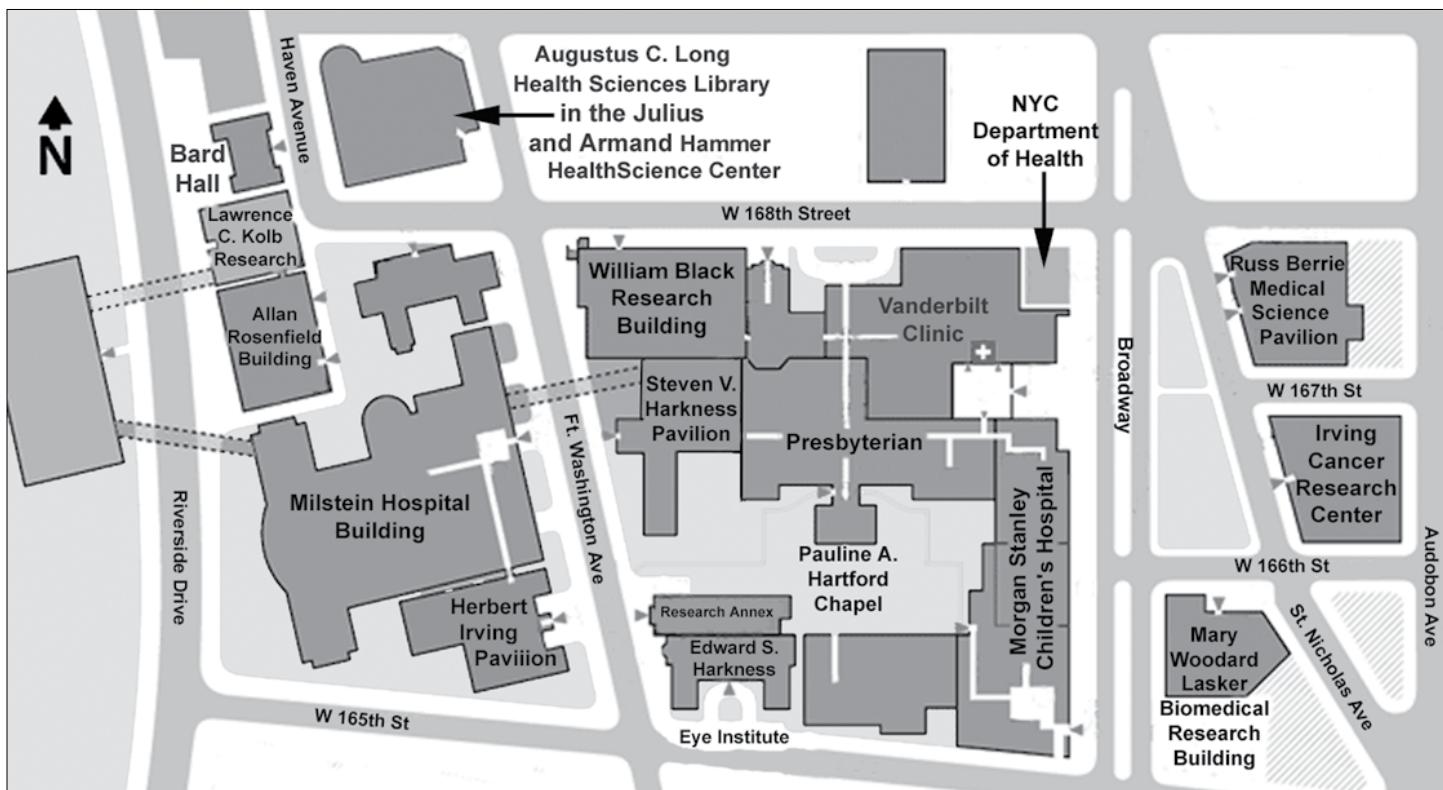




NEWSLETTER

Alumni News of the New York-Presbyterian Hospital/Columbia University Department of Surgery
Volume 10 Number 2 Fall 2007

Tenth Anniversary Issue



John Jones Surgical Society

177 Fort Washington Avenue, MHB 7SK

New York, NY 10032

Telephone: 212-305-2735

Fax: 212-305-3236

webpage: www.columbiasurgery.org/alumni/index.html

Editor: James G. Chandler

Administrator: Trisha J. Hargaden

Design: Columbia University Center for Biomedical Communication

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The John Jones Surgical Society at Age 10

James G. Chandler

The John Jones Surgical Society (JJSS) is alive and well at age 10, holding an annual scientific meeting and dinner on its own in the spring and meeting again in the fall at the American College of Surgery (ACS). The Society serves as a repository for the icons and legends of the Columbia/NewYork-Presbyterian Hospital and its antecedents, in cooperation with the Archives and Special Collections Section of the Augustus C. Long Health Sciences Library, and functions, not quite as well as it should, as a contact resource for current trainees. Most importantly, it serves to remind all of us of the privilege we have in being associated with one of the foremost medical institutions in the Country, if not the World. In return, the Society, which has enjoyed the Department's largess since its inception, has a good start on funding a perpetual John Jones Surgical Research Fellowship that offers broad opportunities to especially promising trainees. The Fellowship enhances the Society's worth in the eyes of both new acolytes and those on the other side of the slope in need of assurance that their cherished legacy will long endure.

The Sunday/Monday issue of every ACS "Clinical Congress News" devotes two pages of what look like classified ads, to listing Associated Society meetings. Some are strictly working sessions for Editorial Boards, Program Committees, or Training Directors. Others are elitist groups typified by Surgical Biology Clubs I to IV, and an increasing number represent the national and ethnic diversity of the College. But, the principal component, by far, relates to affiliations with Universities or teaching hospitals, and these are decreasing in number. Temporal dissociation between the eponymous honorees and living members has transitioned Naffziger, Altemeier, and Glenn Societies into institutional brands. They, in turn, are tending to amalgamate into regional groups, like the five campuses of the University of California, and the three Ohio Medical Schools for obvious cost savings and for less obvious dwindling attendance.

Closer to home, Columbia Presbyterian faculty, who trained with Dr. Whipple, formed an Allen O. Whipple Surgical Society (AOWSS) in 1952, with furthering surgical education as its avowed purpose. Academic orientation and achievement quickly overrode having trained at Columbia Presbyterian and much of the membership eventually came from other institutions, including teaching hospitals that, at the time, did not have direct university affiliations, such as Hartford Hospital, the Mayo Clinic, and Baystate Medical Center.¹ Their needs were particularly well met by the AOWSS meeting jointly with the Society of Surgical Chairman for two decades. Towards the end of its halcyon days, the journal *Surgery* regularly devoted a portion of its 1970-73 October issues to papers presented at the Society's annual spring meetings. Its subsequent meetings occurred in conjunction with the ACS, and without non-member, surgical chairmen, resulting in the AOWSS holding its last meeting in New Orleans, in October 1978, 15 years after Dr. Whipple's death. Paul Friedman at Bay State, Dom DeLaurentis at Pennsylvania Hospital, and Rollo Hanlon, ACS Director, all former AOWSS members, recreated its role after protracted deliberations as the Association of Program Directors in Surgery, which held its first meeting in 1984. One might say a nice ending, but never the less - an ending.

Since the AOWSS was a surgical educational society rather than a Presbyterian Hospital surgical alumni society, most PH graduates did not notice its demise. Blair Rogers,² a plastic surgeon who had most of his training at Columbia, finishing in 1956, resurrected John Jones' role in Kings College and the Revolutionary War with an elegant 1972 paper in Plastic and Reconstructive Surgery. Jones' rehabilitation lay fallow for quite some time, but the Solomonic choice of naming a society for a surgical leader from two centuries before rather than the current chairman, or an immediate predecessor must have lingered in several minds.

Eric Rose and Ken Forde aired the concept of forming a Presbyterian Hospital Surgical Alumni Society at the 1996 ACS Department of Surgery reception, which was enthusiastically endorsed. Soon after the meeting, aware of Rogers' article and others, Eric Rose suggested that Jones be the Society's Icon. Ken Forde responded with his characteristic, mellow "Why not?" and set about forming a Steering Committee, comprising Fred Herter, Fred Jaretzki, Carl Feind, Al Markowitz, John Schullinger, Paul Starker, Ken Steinglass, and Phil Wiedel. They held their first meeting in February 1997 to do organizational things like formulating a Constitution and By-laws, deciding what the stationery should look like, sending a letter out to the alumni, and waking up to the fact that younger surgeons must be included in the decision making body.

The Society has been an inclusive organization from its inception. All surgeons who were partially or fully trained at Columbia's NewYork-Presbyterian (née Presbyterian) Hospital, as well as all current and past surgical faculty, automatically become members. Current residents and clinical fellows are accorded candidate membership, and former research fellows and first-year residents, whose principal surgical training occurred elsewhere, are eligible to be considered for active membership on an individual basis.

John Jones was immediately emblematic of the Society's interest in history, as evidenced by its arranging for the restoration of the Archives and Special Collections' copy of Jones' "Plain, Concise, Practical Remarks On The Treatment Of Wounds And Fractures," reflecting his Revolutionary War experience, which had been contributed by Hugh Auchincloss, Sr. in 1942. The Steering Committee also gathered and buffed up the Department's memorabilia for display in the Surgical Residents' library and adjoining hallway on the seventh floor of the Milstein Building. They capped these activities by committing themselves to writing a Departmental history that would span King's College days through 2002.

The Society held its first meeting on May 8, 1997, in conjunction with P&S alumni weekend, featuring Garrett M. Brodeur, Chief of Oncology at the Children's Hospital of Philadelphia, who spoke about the fascinating genetic underpinnings of neuroblastomas, as the John N. Schullinger Special Lecturer in Childhood Cancer. Its next meeting was in October, at the ACS, where Ken Forde was elected its first President, followed by Ken Steinglass, as Vice President, Beth Ditkoff as Secretary, and Al Markowitz as Treasurer. In November of its founding year Fred Herter presented a first draft of the Departmental history to the Steering committee.

¹Cofer JB. Presidential Address. *Curr Surg* 2006;63:361-6.

²Rogers BO. Surgery in the revolutionary war – Contributions of John Jones, MD. *Plast and Reconstr Surgery* 1972;49:1-13.

Regular annual meetings at the ACS and on and off spring meetings on P&S Alumni weekends characterized the succeeding six years with two hallmarks of substantive progress. The first John Jones Surgical Society News Letter, with Beth Ditkoff as its Editor, was mailed to 800 members in September 1998. David Kinne took over its editorship in 2001, setting a dauntingly high standard for anyone who would follow. Hard work, talented writing, and tenacity yielded "A Proud Heritage: An Informal History of Surgery At Columbia," published in 2003, with Drs. Herter and Jaretzki as Editors, Forde as Associate Editor, and Markowitz, Steinglass, and Wiedel as contributors.

The Society's fourth annual spring meeting in May 2004 marked another milestone, as it was a stand-alone affair, featuring Robert B. Smith III of Atlanta, Georgia, who is a great admirer of Arthur Voorhees and very knowledgeable about Art's pioneering work with Vinyon-N, woven-fabric, grafts, speaking on "Aortic Surgery Then And Now." Subsequent spring meeting programs have continued the same "Then And Now" theme with this year's meeting one-upping the others by adding glimpses of the future. Eric Rose spoke about developing an Antiviral Drug for Smallpox, and the panel presentation, moderated by José Guillem, included a talk by Richard Reznick, Chairman of Surgery at the University of Toronto, describing an experimental training program, destined to start in 2008, which is designed to turn out fully trained surgical specialists in three years.

Clearly, the Society has done many things right to see that it does not meet the fate of its antecedent, nor suffer the dwindle affecting many surgical alumni organizations. I count inclusiveness and funding the John Jones Research Fellowship as foremost among them. We do, however, have a liability for amalgamation and have evident, correctable shortcomings. My copy of the Presbyterian

Hospital in the City of New York's Alumni Directory, last published in 1963, sits right beside "A Proud Heritage." Our Society would have more "glue" if we had such a directory. The By-laws call for it, and it has been in the works for far too long.

The John Jones Research Fellowship has received great support, but from a minority of the membership. The percent of members who have contributed is embarrassingly small, even among those who have a vested interest in surgical education. Small enough, in fact, to warrant keeping it secret from the contributors, and John Jones himself, lest they become, respectively, discouraged and saddened – please accept this as an unabashed and impassioned plea for broader participation.

Amazingly, there is still a dawning awareness of our May meeting among the membership at large. The Newsletter does its best to promulgate the quality of the spring program, but cannot match the collective impact of friends telling friends (that directory thing again). The current surgical faculty, as a whole, does not block out the May meeting date on their calendars, even though it is publicized nine months in advance. The faculty's prioritizing is an "insider" issue, but middle-level members appear to be the prime targets. They are the stewards of our Society's future, and the rest of us need to raise their awareness of the value that we place on associating and sharing our goals with them. The JJSS program committee should include members from this group and leverage their contacts to enhance our spring programs. Finally, many members, living afar, view New York City as slightly foreboding and very expensive. "Insider" is also the key to highlighting New York as the cultural paragon that it really is, with a participant-paid-for, insider, behind-the-scenes, theater, concert, or museum-tour opportunity and single-hotel, block booking, so that most out of towners will be staying at the same place. ■

Albert Starr 2007 Lasker Award

Ed Note: On September 28, 2007, Al Starr and his good friend Alain Carpentier were honored at the Lasker Awards luncheon by sharing the Albert Lasker Award for Clinical Medical Research, recognizing their development of prosthetic aortic and mitral valves that have prolonged and enhanced the lives of millions of people. If the Boroughs of New York City were still the small towns that they once were, the subtitle of the headline would have read, "Local Boy Makes Good - Out West!" Starr was born in Brooklyn in 1926, and began his undergraduate years at Columbia University at the age of 16, going on to receive his MD from P&S at age 22, and then to serve as an Army battalion surgeon in Korea. He returned to train in general and cardiothoracic surgery at the Presbyterian Hospital and Columbia's Bellevue Division, finishing in June 1957. In September of 1960, after extensive developmental research in animals, he

did the first complete mitral valve replacement in a long-surviving patient, using a caged ball device that he co-designed with Lowell Edwards. This seminal, "Black-Swan"³ event in the history of cardiac surgery occurred just 38 months after Starr had forsaken his short white Bellevue jacket. At age 81, he says that he is in his third career. The first was as Professor of Surgery at the Medical School, and the second was building the largest private cardiac surgery practice on the West Coast in the Providence Health System. Now he is Providence's director of research, with two 2007 new grants in the works and more coming. The Mary Woodard Lasker Biomedical Research Building section of "Big (Brick and mortar) Names on Campus" provides background information about the Albert Lasker Foundation. Dr. Starr will tell you the rest of the story. ■

³ Taleb NN. The Black Swan: The Impact of the Highly Improbable. Random House, New York, 2007.

How It Came About⁴

Albert Starr, M.D.

Much in life is determined by being in the right place at the right time, while being prepared and bold enough to seek and seize opportunities as they present. As has been noted, I was prepared, in large part, within the Columbia system. A surgical internship interlude at John Hopkins with the great Alfred Blalock provided a little southern cover for my northeast background. I attribute my boldness, to my parents and great teachers: Lionel Trilling in my undergraduate years and George Humphreys, Bob Wylie, Frank Berry, and master surgeon, J. Maxwell Chamberlain at P&S, both as a student and during my post-graduate training. I arrived at the right place and the right time in August of 1957. The University of Oregon Medical School had a brand new University Hospital with a frontier mentality and was ripe for starting a program in open-heart surgery. I met this setting with complete confidence that I could do anything, a characteristic often found among well-trained, young surgeons.

The major focus of cardiac surgery then was on the treatment of congenital heart disease. Extra-cardiac approaches for patent ductus arteriosus, aortic coarctation, and the Blalock-Taussig shunt were well established, and the first open heart procedure using the heart lung machine had been performed by Gibbon in 1953.⁵ Lillehei and Varco in Minneapolis and Kirklin in Rochester, Minnesota were moving swiftly. My marching orders from our Chairman, J. Englebert Dunphy, were to introduce their techniques and achieve results comparable to theirs as soon as possible. We opened an animal laboratory in 1957 for research and team training, and did our first patient in the spring of 1958. The operating room was now our laboratory, and I became fully engaged in clinical work.

Around this time, M. Lowell Edwards visited me to ask if I would collaborate with him in the development of an artificial heart. I told him it was too soon: we did not even have satisfactory artificial valves, and both closed and open-heart procedures on native valves were woefully crude. He was a "retired" hydraulic engineer, who held 63 patents, covering a variety of things, including hydraulic lumber debarking systems and a particularly rewarding one for a fuel injection system for rapidly climbing, World War II aircraft. They were providing royalty income to support his Edwards Development Laboratory in Portland, where his interests in fluid dynamics were now directed to the human circulation. We struck a deal to start the project by developing one valve at a time, taking the mitral first. We shook hands. In the West, that was it. He was fragile with early Parkinson's disease

and wore crumpled slacks, a sports shirt without a tie and a tan golfing jacket. I did not realize then that Edwards would set a grueling pace, and that I was taking on an additional full time job.

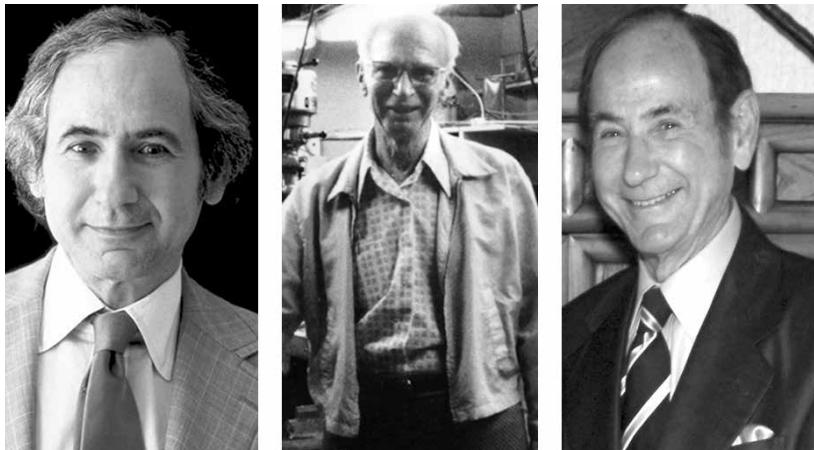
Early Animal Studies

The mitral valve is attached circumferentially to its annulus and tethered by a papillary muscle apparatus that is attached to its free edges and based in the apical portion of the left ventricle. Edwards and I made our first assumption that the tethering and a contracting mitral annulus were not essential features we had to mimic. Our first design had a single-layer sewing ring of Dacron cloth attached between two bonded Teflon rings with paired hemi-circular, relatively thick Silastic leaflets hinged on a cross bar, retrospectively, a crude overbuilt prototype of today's bi-leaflet mechanical valves. Most dogs survived the operation with good cardiac function, but all expired within two to three days from pulmonary edema. Autopsies showed thrombotic occlusion of the valve and areas of dehiscence around the sewing ring. A thicker, more compliant sewing ring greatly decreased peri-prosthetic leaks in the next iteration, which also had better flow washing of its hinges, but thrombosis still killed the animals in two to three days.

Lowell and I decided to abandon the leaflet design and turned our thoughts to a ball occluder with the hope that thrombus, which we knew always formed first in injured tissue, would stop at the margin of the valve orifice and not affect a well washed ball. Ball valves were common in industry and had a little medical history. Hufnagel⁶ had developed a device to palliate aortic regurgitation, consisting of a cap-

tive ball within an acrylic tube that could be rapidly inserted into the descending aorta with spiked rings at both ends to hold the tube in place. The rigid ring and thick sewing ring platform that we had developed was readily adaptable to restrain the ball in the closed position and to carry a flow-through cage to limit its forward excursion.

The concept required complete re-engineering to optimize ball-to-orifice diameters, ball travel, cage



Albert Starr and M. Lowell Edwards, circa 1961, and Starr in his office in 2007

and ball materials, and many fabrication issues, but within just three weeks Lowell delivered an implantable device. This new design had a dramatic short-term effect on animal survival, lengthening it to three to four weeks, when, again, all died of thrombotic occlusion except for one beautiful black Labrador retriever. Autopsies of the others showed massive thrombus piled up on the sewing ring and finally reaching such thickness that it could fall into the orifice producing sudden obstruction. The surviving animal remained healthy and happy, and was

⁴"How It Came About" is adapted from: Starr A. The artificial heart valve. *Nature Medicine* 2007;13:1160-4, where the full text of my commentary can be found.

⁵Gibbon JH, Jr. Application of a mechanical heart and lung apparatus to cardiac surgery. *Minn Med* 1954;7:171-85.

⁶Hufnagel CA, Villegas PD, Nahas H. Experiences with new types of aortic valvular prostheses. *Ann Surg* 1958;147:636-44.

adopted by one of our team, which helped keep the project alive.

In the spring of 1959, as I bounded up the stairs, the cherry blossoms caught my eye, my mind wandered, and suddenly I thought of the solution to the thrombosis problem. Why not have a Silastic shield that could be retracted during implantation and then snapped into place covering the entire zone of tissue injury. We instigated the shield, along with refinements in the cage and sewing-ring design and produced 80% long-term animal survival, with no early deaths from thrombosis. We were on the right track at last. We could follow these animals for a few years, measuring prosthetic valvular function and looking for specific late complications such as valve dehiscence, valve durability, hemolytic anemia, infection and others that could not be anticipated.

Animals to Man

Dr. Herbert Griswold, Oregon's Chief of Cardiology, visited the laboratory early in the summer of 1960 and was amazed to find a kennel full of healthy dogs with prosthetic mitral valves clicking away. He had many patients in the hospital in the terminal stages of heart failure with mitral valve disease and urged us to change our plan to early human implantation. Dunphy said, "Do it." We were suddenly thrust into the real world of informed consent, liability, and the need to separate manufacturing from scientific assessment, with the first potential patients already in the hospital. We selected the unshielded acrylic ball valve for the first clinical implant, the logic being to use the simpler device first; should it fail, we had the shielded valve as a backup. Were we to have used the shielded valve first and it worked, we would have been committed to the shield without knowing if it was necessary with long-term anticoagulation and man's less aggressive clotting mechanism.

Selecting patients, who had no alternative therapy and a limited life expectancy of weeks or months, without treatment, mitigated the

ethical hurdle, as did separating the business from the University's interests. Lowell and three other investors formed Edwards Laboratories to be based in southern California to manufacture artificial heart valves for human use, the first such company in the world. I remained in Oregon to continue the project as a consultant to Edwards Laboratories but with no financial interest in the company that could potentially discredit our findings, a decision I have never regretted.

The Human Experience

The first patient was done in August 1960, a young woman in her late 40's, who was confined to the hospital with end-stage, rheumatic, mitral-valve disease, after two previous attempts to repair her valve. The operation was easier than in the animal laboratory and she awakened from anesthesia in late afternoon with excellent circulation parameters. That evening I helped sit the patient up for a portable chest x-ray. There was

an air fluid level in the right pleural space that we interpreted as a small hemothorax, but it was actually air in her massive left atrium and caused a fatal stroke when she was turned on her right side. I would never let that happen again. The second patient was a truck dispatcher, who had previously had two closed commissurotomy for calcific mitral stenosis. He was our first survivor. Fortunately others followed.^{7,8} Valve replacement



Acrylic single-surviving dog, early clinical, and current Baxter Health Care Starr-Edwards valve

was to become a frequently performed procedure and rapidly extended to the aortic and tricuspid valves. For the first two decades, mechanical valves prevailed, which all required long-term anticoagulation, with its attendant bleeding problems and, despite it, an occasional valve thrombosis. In the mid 1990's, Alain Carpentier's⁹ persistence yielded a durable bovine pericardium valve that, in common with other tissue valves, does not require anticoagulation and is not subject to thrombotic occlusion. His valve currently is the best choice for prosthetic replacement except in very young individuals.

■

⁷Starr A, Edwards ML. Mitral replacement: clinical experience with ball valve prosthesis. Ann Surg 1961;154:726-40.

⁸Grunkemeier GL, Starr A. Twenty-five year experience with Starr-Edwards heart valves: follow-up methods and results. Can J Cardiol 1988;4:381-5.

⁹Carpentier A. The surprising rise of nonthrombogenic valvular surgery. Nature Medicine 2007;13:1165-8

Big (Brick and mortar) Names On Campus

*James G. Chandler; Stephen E. Novak, Head Archives and Special Collections,
Augustus C. Long Health Sciences Library; and Kenneth A. Forde*

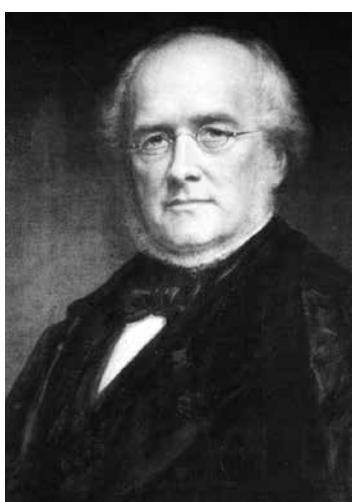
Selecting John Jones of pre-revolutionary King's College as our spiritual progenitor and alumni association icon has a great deal of merit in honoring his advocacy of the intellectual nature of surgery. Of necessity, this overlooks 140 years of disconnects and convoluted relations that spanned King's College's rebirth as Columbia College in 1784 and the assumption of a straight path on the upper west side of Manhattan to leading-edge, academic and clinical excellence. Many key individuals in surmounting these hurdles, or propelling the institution towards excellence in other ways, are memorialized in Campus buildings and specific functional units. The buildings mainly honor major philanthropic gifts and in a few instances, donor esteem for a particularly outstanding clinical scientist or administrator.

This year marks the 10th Anniversary of the founding of the John Jones Surgical Society and an appropriate milestone for reacquainting ourselves with the successive, successful giants who sheltered the institution and facilitated its growth. In looking forward, there is practical importance to understanding why they chose to benefit our Medical Center instead of another, the influence that a personal experience with clinical care might have had in inspiring a gift, and especially, in recognizing circumstances wherein philanthropic vision was needed to overcome short-sighted thinking among generally well-motivated medical professionals and institutional trustees.

Presbyterian

Presbyterian is enshrined in the name of our Hospital as the embodiment of founder James Lenox's original conception of the Hospital, as an institution in which Presbyterians of lesser means could obtain excellent medical care. Lenox (1800-1880) was ordained by birthright to have a philanthropic interest in hospitals: his enormously wealthy merchant father had been instrumental, along with Samuel Bard, in urging the City to purchase the house and land

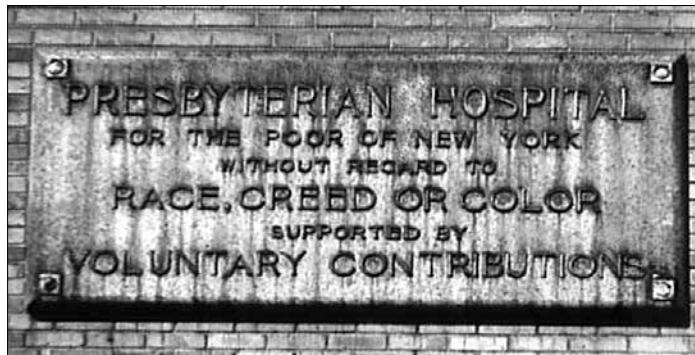
on the shore of the East River, known as Belle Vue, for use as a hospital for the poor and needy. On January 2, 1868, James Lenox wrote to 32 selected, influential business leaders: "The City of New York has many general hospitals, as well as others appropriated to specific purposes; it also contains several under the control of nationalities and religious denominations. Among the latter, the Jewish Hospital, the German¹⁰ and St. Luke's may be named. But the large and influential body of Presbyterians has no such institution



1874 Daniel Huntington's portrait of James Lenox, Founder and first President of Presbyterian Hospital

of this kind under its care... It is to supply this want that...you are invited to join as a Manager in establishing a Presbyterian Hospital in this City."¹¹

The invitation was well targeted and evoked an overwhelmingly positive response and a prominent Board of Managers, including, as ex-officio members, the rectors of the four large Presbyterian congregations in the City. Lenox contributed a plot bounded by Park and Madison Avenues between 70th and 71st Streets and an amount that eventually grew to \$500,000, as he encouraged contributions from others with matching offers. In the process, his parochial thinking about the hospital's purpose broadened remarkably, in large part through the influence of his personal physician, and a member of the Board of Managers, Dr. Oliver White. This moved Lenox to state at its opening, on October 10, 1872, that, "The Presbyterian Hospital [is] Presbyterian in its burdens because [it was] founded by Presbyterians; undenominational in its benefits because [it is] for the reception of patients irrespective of creed, nationality,



Brass plaque from Madison Avenue that was placed adjacent to Vanderbilt Clinic's Broadway entrance

or color." This principle was etched in brass, as it applies to the poor of the City of New York and transferred to the new medical center, where it remained just to the right of Vanderbilt Clinic's Broadway entrance, until the remodel that incorporated the entrance into the Energy Court. Its current whereabouts is unknown, in medical parlance, "lost to follow up."

In truth, creed equality was partially compromised early on, as part of the funding was raised by instituting endowed beds: \$4,000 would endow a bed for the lifetimes of an individual donor and one successor, or 20 years for an association, and \$5,000 guaranteed a bed in perpetuity for both categories. Presbyterians and Presbyterian churches were the principal purchasers of these endowments, which brought in a substantial amount of money. The cost of a bed in perpetuity eventually rose to \$10,000 for individuals in 1921, and for corporations and associations, "perpetuity" was now limited to 25 years.¹¹ By 1954, the Hospital's funding from bed endowments and earned interest was approaching \$2 million. Endowed beds were still being solicited at the same \$10,000 cost as late as 1973, with a reduced time limit to 15 years for corporations and associations but still offering a life-time privilege for an individual donor to nomi-

¹⁰ Respectively, forerunners of Mount Sinai and Lenox Hill hospitals.

¹¹ Lamb AR. The Presbyterian Hospital and the Columbia-Presbyterian Medical Center 1868-1943. Columbia University Press, New York, 1955; pp3-4, 10-11. 174-5.

nate a patient for use of a ward bed, free of charge for up to 90 days ("except for special services)." This solicitation followed by a listing of endowed beds dating back to 1868 regularly appeared in the Medical Center's annual reports through 1979 and then disappeared coincident with the report's drastic redesign and reduction in the size in 1980. We have been unable to ascertain if the Hospital has any remaining obligation to endowers of beds, or how it might have been concluded.

Vanderbilt Clinic and the Sloane Hospital For Women:

The College of Physicians and Surgeons was incorporated as a proprietary medical school under the aegis of the New York County Medical Society and the State University in 1807. Seven years later, it absorbed the faculty of Columbia College's Medical School, including the renowned Valentine Mott as its Surgical Chairman. The combined faculty drew ever more students and certain factions periodically sought realignments with Columbia College, which were resisted by the College's trustees as being too costly. P&S's courses were necessarily didactic with an occasional bench laboratory exercise, in increasingly crowded classrooms, and with essentially no opportunity to examine or participate in the treatment of patients, despite a staged expansion of the curriculum to three years.



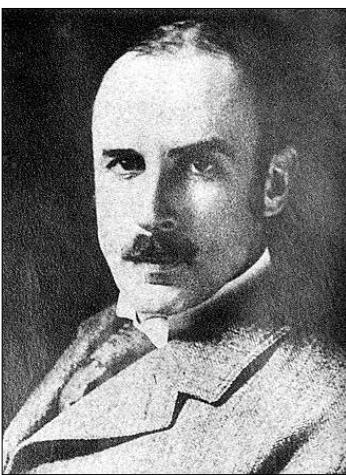
William Henry Vanderbilt

have a supervised experience in the practice of outpatient medicine. His son-in-law, William D. Sloane, and daughter, Emily Thorn Vanderbilt Sloane provided additional funds for building a Sloane Maternity Hospital on the property to provide low-cost obstetrical care and practical teaching for P&S students. Besides paying for construction, the Sloanes endowed the hospital, paid for two major expansions in the early 20th century, and covered the hospital's deficits into the

1920s. Both institutions opened on the Amsterdam Avenue campus, in 1888, Vanderbilt Clinic on 60th Street, and Sloane Maternity on 59th Street. Armed with these new assets and more rigid entrance requirements, P&S successfully negotiated an affiliation with Columbia College in 1891, ending its status as a proprietary medical school, 19 years in advance of the Flexner report,¹² and, in the process, advancing Columbia's goal towards becoming a university.

Roosevelt Hospital, located across West 59th street, could have nicely rounded out the P&S clinical program, but it repeatedly declined to allow students to have access to its patients. This short sightedness eventually led, in 1911, to Columbia University and the Presbyterian Hospital forming a fortuitous, but geographically inconvenient union. As part of the affiliation agreement, the University agreed to divest itself of its clinical units, and what was now known as the Sloane Hospital for Women became the Obstetrics and Gynecology Department of the Presbyterian Hospital. The name and functional unit were reincarnated, in 1928, on the 15th through 17th floors of the new Medical Center. Today, gynecologic operations are done in the Milstein Hospital Building. The Sloane Hospital For Women has returned to its root purpose, albeit, now also welcoming the "Carriage Trade" and persists as the Maternity Unit and the Carmen and John Thain Labor and Delivery Unit on the 10th floor of the Morgan Stanley Children's Hospital. This location suits the new fields of Maternal Fetal Medicine and Prenatal Pediatrics in managing high-risk pregnancies, which constitute an increasing proportion of referrals to New York-Presbyterian's obstetrical service. Vanderbilt Clinic, as rebuilt on the Medical Center grounds, continues to serve as the main outpatient facility and the entrance point for seekers of both emergency and elective care.

McCosh Operating Amphitheater:



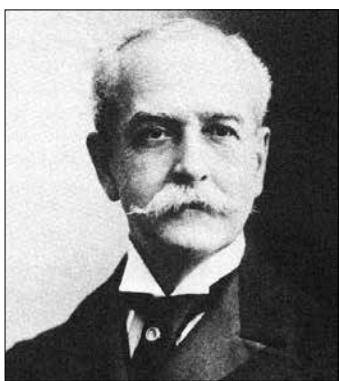
Andrew J. McCosh

Andrew J. McCosh, an 1880 graduate of P&S, was appointed attending surgeon and a member of the Medical Board at the Presbyterian Hospital, in 1887, replacing William Stewart Halsted, who had resigned because of addictive health problems.¹³ McCosh established a reputation as a bold surgeon with particular expertise in spinal cord operations and succeeded to the Medical Board Presidency in 1903. He served as an energetic and forceful President until November 1908,

when, at the age of 50, he was fatally injured after his horses bolted and threw him out of his carriage at 55th and Lexington, right in front of Babies Hospital. A Memorial fund was established and offered to the Hospital, in 1915, with a principal provision that an Andrew J. McCosh main operating amphitheater be established in the near future and embellished with an appropriate plaque.

The amphitheater named in his honor was considered a marvel

when it opened in 1928 on the 16th floor of the Medical Center: each seat had a radiophone through which students could hear the heartbeat of the patient on the table; even the green tile had been selected



William D. and Emily Thorn Vanderbilt Sloane

¹² Flexner A. Medical Education in the United States and Canada. New York, NY: Carnegie Foundation for the Advancement of Teaching; 1910.

¹³ Lamb AR. The Presbyterian Hospital and the Columbia-Presbyterian Medical Center 1868-1943. Columbia University Press, New York, 1955; pp31, 59-60, 102, 235.

with the idea that it would be easier on the eyes of the surgeons. But, in fact, it was uncommonly used for operations, serving more as an uncomfortable lecture hall, because the accepted aseptic operating room paradigm was incompatible with a horde of observers sharing the same air, as they often did in the antisepsis era. The Hospital belatedly complied with something less than the spirit of the gift's stipulation, in 1951, by marking one of several Presbyterian Hospital operating rooms having glassed-in observation galleries with an inscribed bronze plaque bearing a bas-relief likeness of the honoree. Placement of the plaque in the Milstein operating suite has yet to occur, and McCosh's likeness currently languishes in the Archives of the John Jones Surgical Society.

Stephen V. Harkness Pavilion:



Edward S. Harkness, from the Commonwealth Fund Archives, courtesy of the Rockefeller Archives Center, Sleepy Hollow, NY.



Anna Richardson Harkness

Stephen Vanderburgh Harkness, of New York and then Ohio, was an early investor in Standard Oil, becoming its second largest shareholder after John D. Rockefeller, Sr. He died in 1888, as did his elder son Charles in 1916, leaving an enormous fortune to his wife Anna Richardson Harkness (1837-1926) and, his surviving son, Edward Stephen Harkness (1874-1940). The mother and son's overarching generosity and Edward Harkness' prescience and persistence brought Columbia P&S students across town to the Presbyterian Hospital wards in 1911, which he foresaw as an important first step towards creating a completely new university medical teaching center, emulating the University of Pennsylvania Hospital (integrated into the University's Medical School in 1874) and Johns Hopkins Hospital, which was an integral part of the Medical School from its opening in 1889.^{14,15} Harkness' efforts had broad influence, inspiring executors and trustees in Boston and St. Louis to go forward with their intentions to integrate new hospital construction, endowed by the respective wills of Peter Bent Brigham and Robert Barnes, and existing children's hospitals, into their respective university medical schools.¹⁴

It is 1910; Edward Harkness has resigned from Roosevelt Hospital because of its Board's intransigence, and has joined the Board of Managers of the Presbyterian Hospital. He brings great wealth and a firm conviction: "That the visiting staff of a hospital does better work for its patients, and that its members are kept more up to date, if they include teaching with their duties than otherwise; that the hospital

and patients directly benefit thereby, the former through attracting a better class of interns and attendings because of the teaching facilities, the latter through receiving more careful attention and the latest methods of treatment."¹⁶ He offers to fund a new teaching hospital, conditional on several stipulations that appear to have been directed to prepared minds: admitting students to the wards, providing instruction in pathology and bacteriology, and physicians focusing their entire practice at a single hospital. All were immediately acceptable to the Presbyterian Hospital Managers and staff. Students were admitted to the wards in 1911, and temporary spaces were found or constructed to support the educational activities.

Why Presbyterian? No doubt Harkness' Presbyterianism – he was a life-long member of the Madison Avenue Presbyterian Church – played a role. He also had a good friend from his Yale student days at the Presbyterian Hospital, William Darrach, an assistant attending surgeon, interested in orthopedics and trauma.¹⁷ Circumstances also may have had something to do with it. New York Hospital, the other natural candidate for affiliation with Columbia, had a distinguished history dating from 1771 enhanced by its role in caring for Civil War wounded. Its 1877 building on West 15 Street between Fifth and Sixth Avenues was almost as old as Presbyterian's, yet its Governors were content with their physical plant. In contrast, the Presbyterian Hospital's Board clearly recognized that they had outgrown their current buildings. Since any union of medical school and hospital would require a new physical plant, Harkness may have been inclined towards the hospital that would offer the path of least resistance. In fact, Mr. John Kennedy, the Presbyterian Board's President had headed a Site Selection Committee that included Dr. John Shaw Billings the designer of the Johns Hopkins Hospital and, incidentally, the preliminary designer and first director of the New York Public Library.¹⁵ They decided on the block bounded by Avenue A (now York Avenue) and the East River between East 67th and 68th streets, which Mr. Kennedy then personally had purchased for the hospital in February 1909.

Edward Harkness first proposed the Washington Heights property in 1915, at a Building Committee meeting that had just rejected moving to the East River (now, ironically, the location of the New York-Presbyterian/Weill Cornell Medical Center). Presbyterian's Board of Managers readily accepted the idea, but Columbia University insisted that it be allowed to defer paying its share of the land acquisition cost to allow for a projected five years of fund raising. Harkness believed delaying acquisition would allow for considerable appreciation, making the purchase much more costly. The subway system had already reached 155th and Broadway, and its imminent arrival in Washington Heights was likely to send property values soaring. He circumvented this problem by having his mother purchase the land. This was extremely fortunate, since by 1918 Columbia had completely failed to raise its portion of the purchase price and an outraged Presbyterian Board had broken off the affiliation agreement.

Cooler heads prevailed, and after several years of negotiations, a new affiliation agreement was signed in 1921. Columbia this time quickly found the money, at which point Harkness revealed that he and his mother were gifting the 22-acre site to the Hospital and the University. The Hospital funded its share by the eventual sale of its two highly appreciated properties and gifts from philanthropists, but those temporary education spaces at 70th and Madison Avenue

¹⁴ Ludmerer KM. The rise of the teaching hospital in America. *J Hist Med Allied Sci* 1983;38:389-414.

¹⁵ Cameron JL. Early contributions to the Johns Hopkins Hospital by the "other" surgeon: John Shaw Billings. *Ann Surg* 2001;234:267-78.

¹⁶ Lamb AR. The Presbyterian Hospital and the Columbia-Presbyterian Medical Center 1868-1943. Columbia University Press, New York, 1955; p76.

¹⁷ Lau FH, Chung KC. William Darrach, MD: his life and his contribution to hand surgery. *J Hand Surg* 2006;31:1056-60.

had to suffice for 17 years.

There were several frustratingly slow years before planning for the Medical Center really took off. Firm allies in both the Hospital and the Medical School bolstered Harkness during this period of intense strain on both parties' administrative and fiscal resources.

Dean Sage, President of Presbyterian from 1923 until his death in 1943, had been a law student at Yale when Harkness was an undergraduate. Though Harkness was painfully shy in his youth, he and the older Sage had become fast friends. On the P&S side, the selection of William Darrach as Dean in 1919 had as much to do with his friendship with Harkness as with Darrach's well-known diplomatic abilities. He would remain Dean throughout the construction of the Medical Center, only stepping down in 1930.

Plans were nearing completion in 1924, when it was realized that there was no funding or space allotted to accommodating private patients. Harkness remedied this oversight by persuading his mother to make a gift of the Harkness Pavilion in honor of her husband and his father in time for the Medical Center's ground breaking on January 31, 1925.

The Harkness grants were prototypical of gifts that keep on giving, and the granters themselves were impelled to continue gifting, as their interests became ever more entwined with those of the Medical Center. When funding appeared insufficient in 1926 to build out Vanderbilt Clinic to its needed size, Edward Harkness donated \$250,000, which stimulated William Vanderbilt's grandchildren to donate an additional \$900,000. In 1927, when funds for the new Babies Hospital were wanting, he advanced \$1.5 million to get the project underway.

J. Bentley Squier Urology Clinic:



J. Bentley Squier

During the later stages of the Medical Center planning, in 1924, J. Bentley Squier (1875-1948), Attending Urologist at the Madison Avenue Presbyterian Hospital since 1917 and Professor of Urology at Columbia P & S, agreed personally to fund the construction cost of the 10th floor of the new Presbyterian Hospital and to raise an endowment to be used to cover any operating deficit his department might incur. He was as good as his word, persuading friends and patients to donate more

than \$400,000 by the time the Medical Center opened its doors to patients. His name endures in New York-Presbyterian Hospital's J. Bentley Squier Urologic Clinical Training Program, with locations on the 11th floor of the Herbert Irving Pavilion, as well as in the Milstein Hospital Building, Morgan Stanley Children's Hospital, and the Allen Pavilion.

Bard Hall:



Samuel Bard

The Medical Center opened for business on March 16, 1928 with an early morning transfer of patients from 70th Street and Madison Avenue. A formal Dedication Ceremony was deferred until Columbus Day, which included a keynote address by P&S dean emeritus, Samuel Lambert, who recounted the project's triumphs and urged adding a student residence. This was typical timing for the days before students were given a voice in university management. Students knew

that neighborhood housing was too expensive for most of them well before the Medical Center opened. The School's response, however, was indeed timely: P&S Dean Darrach and Edward Harkness got together quickly, and an ideal site was found on the west side of Haven Avenue at 169th street. Harkness gave \$2 million to Columbia University in early 1929 to purchase the land and construct the building. He involved his architect, Yale friend J. Gamble Rogers, who had designed the Medical Center to develop working drawings. Despite the stock market crash on October 29th, construction began in early 1930 and was completed in mid-1931. Naming this Harkness-funded student residence for Samuel Bard was particularly appropriate, as Bard had espoused teaching hospitals as being "the best and only means of instructing pupils properly in the practice of medicine" in delivering the first King's College Medical School Commencement Address, in 1769. Samuel Bard (1742-1821) was Professor of all things medical, with a special interest in obstetrics.¹⁸ From 1767 to 1814, he served as Dean of King's and Columbia College's medical schools and, from 1811 until his death, was also president of the College of Physicians and Surgeons.

Edward S. Harkness Eye Institute:

The Depression of 1930 brought forth a Medical Center operating budget deficit that looked like it would grow geometrically in the coming years. This prospect was soon mitigated by a Harkness gift of \$5 million to be used as a permanent endowment to provide a source of income to meet anticipated and unanticipated operating deficits. In the same year, and just prior to his resigning, Dean Darrach prevailed upon his old friend to consider helping with the funding of an Institute of Ophthalmology to house an unusually vigorous academic and clinical Ophthalmology department that he had recruited. Harkness agreed to fund the project in its entirety in January 1931, asking only that then Dean Rappleye not announce

¹⁸Heaton CE. Samuel Bard; 1742-1821. J Med Educ 1958;33:717-20.

the amount of money that would be involved. Ground was broken in July, and the Institute opened its doors for patients in January of 1933. Very few hospitals broke ground on either side of the Atlantic for major construction projects, in 1930 and '31 and fewer still, if any, had the resources to complete them in a timely fashion. Over the next several years Edward Harkness continued to provide financial support for hiring of specific Professors and start-up funding for research projects. It is generally thought that his aggregate Institute-of-Ophthalmology-related giving exceeded \$5 million.

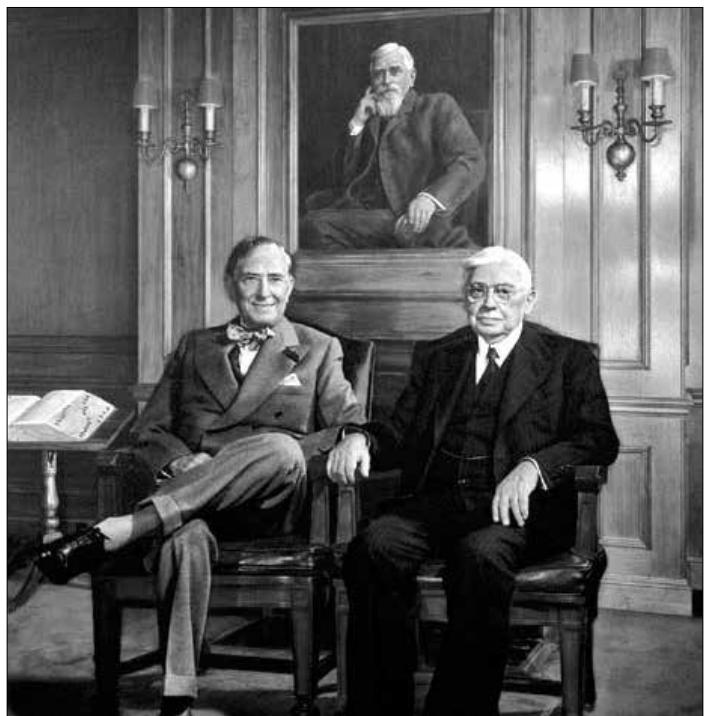


South Property

The Medical Center in 1933, following the remarkable depression era completion of the Harkness Eye Institute adjacent to the tennis courts. Anna C. Maxwell Hall is seen at the left, with its broad lawns and long approach terminating in a circle.

Pauline A. Hartford Chapel:

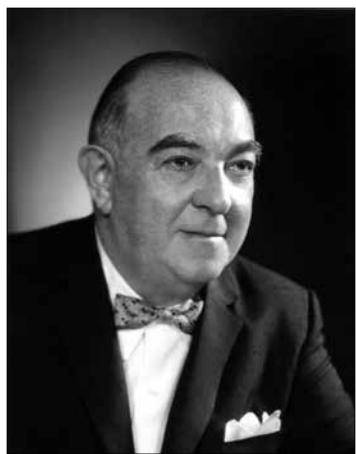
The non-denominational chapel in the center of the Hospital grounds was the 1950 gift of the John A. Hartford Foundation in memory of John Hartford's wife. The Hartford Foundation was established in 1929 by bequests from John A. and George L. Hartford, the sons of George Huntington Hartford, who founded the Great Atlantic & Pacific Tea Company in 1859, as a mail-order business to sell tea directly to consumers. He and his sons made a series of marketing innovations that developed this small family business, within two generations, into the international supermarket chain, better known as "The A & P." John Hartford was also a Presbyterian Hospital trustee and Mrs. Hartford had been a patient at the Medical Center at the time of her death, in 1948. Though the original grant was for \$800,000, the Hartford Foundation continued to give funds for the maintenance of the chapel for a total of almost \$2 million, until the late 1960s, when the Foundation decided to focus its interests on medical innovations. In 1982, the Foundation's emphases shifted once more, this time to advancing geriatric care and improved old-age health, fields in which it is now the largest privately funded grantor.



John A. (bow tie) and George L., sitting in front of a portrait of their father, George Huntington Hartford

William Black Research Building:

William Black, a 1920 graduate of Columbia College, founded “Chock full o’Nuts” during the Depression, selling first nuts, and then coffee, before opening a chain of coffee shops. By the 1950s, he was a multimillionaire and his \$5 million gift to Columbia, in 1960, for the medical research building that would be named for him was the largest gift the University had received from a living donor up to that time.

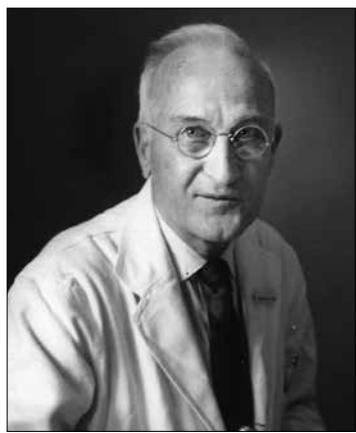


William Black

Parkinson’s Disease Foundation until his death in 1983; his memorial service was held in the P&S Alumni Auditorium adjacent to the building that bears his name.

Herbert Irving Pavilion:

The Medical Center’s founders and grantors debated fulltime and geographic-fulltime practice patterns at length, ultimately endorsing both, but provided only limited space to house the outpatient activities of these practices. This incommodeousness ended with the 1968 opening of the Dana W. Atchley Pavilion, devoted exclusively to



Dana W. Atchley

and a treasured source of referral for a selected succession of attending surgeons for an additional 55 years. Several years ago, the building was renamed to honor Herbert Irving for his numerous gifts to the Medical Center, but “Atchley Pavilion” lingers in the Hospital’s lexicon.

Augustus C. Long Health Sciences Library:

Augustus C. Long (1904-2001) was Chairman of the Board and CEO of Texaco from 1956 to 1965 and was recalled in 1970 to serve another year as CEO. “Gus” Long joined the Texas Oil Com-

pany (the original name of Texaco, Inc.) in 1920 as a service station supervisor in Miami, FL. By 1928, Texaco had become the first U.S. oil company to sell its gasoline nationwide under a single brand name in all 48 states (and then 50, after Alaska and Hawaii joined the Union in 1959). As a graduate of the US Naval Academy, Long was recalled to duty in 1941 as a Lieutenant, serving in London as the coordinator of petroleum supplies for the Allied Forces. Mr. Long served on the Board of Trustees of the Presbyterian Hospital from 1955 to 1975 and was its Chairman for four years. In 1962, an anonymous donor gave \$1 million towards the building of a Health Sciences Library with the proviso it be named for Augustus C. Long. Texaco was merged into Chevron Corporation in 2001, which still operates 1500 Texaco-branded stations in 26 states.

Julius and Armand Hammer Health Sciences Center:

The building that houses the Augustus C. Long Health Sciences Library, as well as classrooms and laboratories, was still unnamed when it opened in 1976. It wasn’t until July 1977 that Dr. Armand Hammer (P&S 1921), Chairman and CEO of Occidental Petroleum, announced his donation of \$5 million towards defraying the cost of the building. In his honor, the building bears both his name and that of his father, Dr. Julius Hammer, a 1902 P&S graduate and

a founder of the Communist Party of the USA. Julius, a Russian immigrant, had linked up with Vladimir Lenin at a socialist conference in Berlin in 1907 and “agreed to become part of the elite underground cadre that Lenin would depend on to change the world.”

Armand Hammer had strong – and some would say shady – business ties to the Soviet leadership and was known as “Lenin’s chosen capitalist.”¹⁹ His dealings with some of America’s political elite in both parties were not entirely dissimilar. He was convicted of making illegal contributions to the 1972 Nixon campaign, though President George H.W. Bush later pardoned him following a substantial campaign contribution to the Republican National Committee.

Lawrence C. Kolb Research Building:



Lawrence Kolb

This psychiatric research facility, on Haven Ave. just south of Bard Hall, opened in 1982, honoring Lawrence C. Kolb (1911-2006), a second-generation psychiatrist with a keen interest in research. Dr. Kolb was appointed Chairman of the Department of Psychiatry at Columbia University and Director of its affiliated New York State Psychiatric Institute in 1954 and held these positions for 21 years. He had been in the Navy during

¹⁹http://www.theforbiddenknowledge.com/hardtruth/armand_hammer.htm

World War II, giving him the opportunity to study "battle fatigue" and phantom limb pain, and make seminal contributions to the understanding of both.²⁰ Kolb turned again to "battle fatigue" in a large Veterans Administration study of Vietnam veterans, showing that what had become recognized as the more broadly-based, **Post-traumatic Stress Disorder** was capable on its own of causing physical signs and symptoms. In 1976, Dr Kolb left Columbia to become the New York State Commissioner of Mental Hygiene.

Milstein Hospital Building and the Vivian and Seymour Milstein Family Heart Center:

The Milstein Hospital Building is the principal patient-care facility at the Columbia University Medical Campus of the New York-Presbyterian Hospital. When it opened in 1989, its 745 beds made Presbyterian Hospital the largest in New York City and the second largest in the nation. The building commemorates a \$25 million gift in 1988 from the Milstein Family Foundation, representing Seymour and Paul Milstein and their sister, Gloria Milstein Flanzer – then the largest gift in the Presbyterian Hospital's history. Seymour Milstein, a leader in New York's real estate and banking sectors, sat on the Hospital Board of Trustees from 1988 until his death in 2001 and served as its Chairman from 1989 to 1996. The Milstein families continue to be generous benefactors of both the Hospital and the Medical School. They established and continue to support the Paul Milstein Laboratories in the Department of Surgery and, in 2006, contributed \$50 million for the construction of the Vivian and Seymour Milstein Family Heart Center, a free-standing, six-level building, now under construction immediately south of the Milstein Hospital Building, and behind the Herbert Irving Pavilion.

Morgan Stanley Children's Hospital:

This newest addition to the NewYork-Presbyterian Hospital/Columbia campus, which opened in November of 2003, was featured in the fall 2006 issue of the JJSS News Letter. The Hospital is named for the New York investment bank that donated \$62 million of the building's \$120 million total cost. NewYork-Presbyterian Board of Trustees Chairman and, at the time, Morgan Stanley CEO, John J. Mack spearheaded the fundraising. Besides Morgan Stanley's gift – of which \$50 million were personal donations of company employees – significant contributions were received from JP Morgan Chase and Goldman Sachs. Not for nothing is the Hospital known as "The Hospital Wall Street built."

Mary Woodard Lasker Biomedical Research Building:



Mary Lasker in 1971

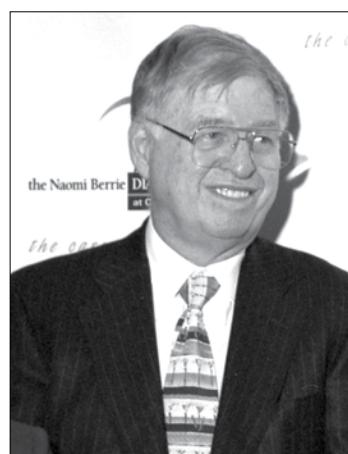
This building, the first in the Audubon Research Park, opened in October 1995 and was named for Mary Woodard (not "Woodward," a common error) Lasker, who had died in the preceding year. Her husband, Albert Lasker (1880-1953), started out as an office boy in 1898 at the Lord & Thomas advertising agency in Chicago. By the age of 20, he owned the company and remained its CEO for more than forty years before selling out to three of

his staff members in 1942. He was the advertising genius behind Sunkist Oranges, saving the orange growing industry by creating a market for orange juice as well as the fruit itself. He is also credited as being the inventor of the soap opera, making radio, and television after it, into advertising-driven mediums, and with having master-minded Warren Harding's 1920 Presidential election campaign.

Albert and Mary Woodard Lasker established the Lasker Foundation in 1944. The Foundation is best known for its yearly Albert Lasker Medical Research Awards to celebrated scientists, physicians, and public servants whose accomplishments have made major advances in the diagnosis, prevention, treatment, and even cure of many of the crippling and killing diseases of the 20th and 21st centuries. After Albert's death, Mrs. Lasker continued as the guiding force behind the Awards. The Lasker Awards have been characterized as "America's Nobels" as 71 Lasker recipients since 1962 have gone on to win a Nobel Prize, most within two years of receiving the Lasker Award.

The Laskers created these awards not only to reward achievement, but also to raise public awareness of the enormous value of biomedical research to a healthy society. When Mrs. Lasker died in 1994, she left, as her major legacy, a lifetime of powerful influence on health and science in America, principally through her remarkable efforts to expand political support for the National Institutes of Health.

Russ Berrie Medical Science Pavilion:



Russ Berrie

The pavilion honors the generosity of Russ Berrie who donated \$13.5 million in 1997 towards its construction and to establish the Naomi Berrie Diabetes Center, named for his mother. This was only the beginning of Berrie's support of the Medical Center, which by 2003, totaled \$36 million. Besides the Diabetes Center, he funded the Naomi Berrie Award for Outstanding Achievement in Diabetes Research and the Berrie Family Diabetic Retinopathy Program.

Russ Berrie founded a gifts and toys manufacturing company in a rented garage in Palisades Park, NJ, in 1963. By the time of his death in 2002, Russ Berrie and Company, Inc. ("RUSS") was one of the world's largest gift companies with 2001 sales of over \$294 million. Berrie's contributions to Columbia were only a small part of his philanthropy: in 1998, Fortune magazine named him one of the 40 most generous Americans.

The Irving Cancer Research Center:

This modern nine-story building was dedicated in May 2005 and is named for Herbert and Florence Irving whose long record of generosity has made them the largest contributors to the Columbia University Medical Center and NewYork-Presbyterian Hospital. Herbert Irving's fortune came from his co-founding of a frozen foods firm that eventually became SYSCO Corporation, the coun-

²⁰ Frazier SH, Kolb LC. Psychiatric aspects of pain and the phantom limb. Orthop Clin North Am. 1970;1:481-95.



Florence and Herbert Irving

try's largest marketer and distributor of food service products and a Fortune 500 company. The Irving Cancer Research Center building is a major component of the University's Audubon Research Park, housing laboratories, classrooms and the Avon Breast Imaging Center. This is only the most prominent of the Irvings' gifts, which also include the Herbert Irving Comprehensive Cancer Center, the Irving Institute for Clinical and Translational Research, the Herbert Irving Scholars to support young physician-investigators, and the Herbert and Florence Irving Professorship in Internal Medicine, which supports the Director of the Cancer Center.

The Allan Rosenfield Building and the Mailman School of Public Health

Columbia's Mailman School of Public health honors Joseph L. Mailman, the founder of a very successful business conglomerate that encompassed rubber tires, a major international freight forwarder, and the importation of now very collectable straight razors. He and his brother Abraham established the Mailman Foundation in 1943, which made a gift of \$33 million to the School in 1998 – the largest gift to a school of public health up to that time.

The following year, the Bill and Melinda Gates Foundation gave the School a \$50 million grant for improving maternal health in developing countries. Then,

and now retiring Dean, Allan Rosenfield, a P&S alumnus and an obstetrician and gynecologist negotiated both gifts, as well as many more that followed. His negotiating stance was based on the documented good work of his faculty and considerably enhanced by his personal record of worldwide achievements in the fields of women's rights, reproductive health, family planning and efforts to counter the HIV/AIDS pandemic.



Dean Allan Rosenfield

The Mailman School has seen tremendous growth in faculty, students, and course offerings during Rosenfield's 20-year deanship. Its endowment has matched this successful expansion, growing from \$2 million to \$51 million. What the School desperately lacked was a home of its own. Departments were located in buildings scattered across the Medical Center campus, including shared space with the New York City Department of Health in the building at the corner of 168th Street and Broadway, making it difficult to create a sense of identity and hindering faculty communication.

Fortunately, the 1998 opening of a new building for the New York State Psychiatric Institute on Riverside Drive made its former home available. New York State Architect, Sullivan W. Jones designed this large, art deco influenced building at the corner of W. 168th Street and Haven Avenue, making it the only original Medical Center building not designed by J. Gamble Rogers, though Jones adhered closely to Rogers' style. Since the School's move into the old "PI" several years ago, it has been engaged in a top to bottom renovation of the 200,000 square feet structure to bring it into the 21st century. In June 2006, the University Trustees designated it "The Allan Rosenfield Building" in honor of Dr. Rosenfield's distinguished tenure after a group of friends, highly placed supporters, and respected philanthropic foundations, including those of the Mailman family and Bill and Melinda Gates, initiated a Tribute Fund in March, which has already garnered commitments for more than half of the \$66 million cost of renovations.

Epilogue

Academic clinical centers of excellence are better positioned to seek philanthropic funding than many working within them might think by virtue of what we do, whom we care for, the institution's promise of future achievements, and the time-honored obligation associated with membership and chairing of its governance boards. The institution's reputation for excellence of care, its prominent role in development of new treatments, and its commitment to the public good are the apparent underpinnings of most of our "Brick and Mortar" gifts and, in one way or another, are the collective achievements of all who have worked in the Columbia University Medical Center. Although we have been unable to identify specific instances, we suspect that several unheralded personal interactions between Medical Center physicians and their patients lie beneath some of those underpinnings. ■

Where Are They Now?

Eric H. Liu



Jack Jacobson

Dr. Julius H. Jacobson, II a native of Toledo, Ohio, graduated from Toledo University at the age of 19 after having served in the Navy during World War II.²¹ Jack Jacobson, as he is generally known, earned a Master's degree in cell physiology at the University of Pennsylvania and then attended Johns Hopkins Medical School, graduating in 1952. He interned in surgery at the Columbia-Presbyterian Medical Center and stayed on to complete general and thoracic

surgery training in 1959. His early research experience was with Drs. Voorhees and Blakemore in developing new treatments for abdominal aortic aneurysms. After a short time as a junior attending at CPMC, he was recruited to the University of Vermont to be its Director of Surgical research, where his microsurgical crusade began. In 1962, he returned to New York to become Professor of Surgery at Mount Sinai Medical School, where he distinguished himself as the preeminent pioneer and advocate of microvascular surgery. Dr. Jacobson is now a Distinguished Service Professor of Surgery and Director Emeritus of Vascular Surgery at the Mount Sinai School of Medicine of the City University of New York. He continues to do research and work on his many philanthropic projects when not traveling in the Caribbean.

What were the factors that led to the development of microsurgery?

It all started with the research at Columbia. Art Voorhees was a few years ahead of me in the residency and we both worked with Dr. Blakemore who was interested in treating abdominal aortic aneurysms. With the help of the Davol Company, I developed an adjustable hydraulic constrictor cuff to be placed around the proximal neck of an aneurysm to reduce the aneurismal sac pressure. It had a control tube linking it to a subcutaneous bulb. Injecting or withdrawing fluid from the bulb allowed us to titrate between effective pressure reduction and distal ischemia. This was tricky, since flow varied with the fourth power of changes in the aorta's intraluminal radius. Of course, I was working in dogs and the other variable was exercise-induced hind-limb hypoxemia. This caused the dogs to limp (claudicate), and then stop for a few moments, after which they could run again. We quantified these things on a treadmill, resulting in my first Surgical Forum Paper.²²

This early work led to my appointment at the University of Vermont as Director of Surgical Research. While there, I collaborated with members of the Pharmacology department who wanted to test the effect of various agents on the denervated carotid artery. We quickly found that ensuring absolute denervation required complete excision of the test segment and then reinserting it with proximal and distal anastomoses. The "aha" moment came when I realized

that the eye could not see well enough to tell the hands what to do. I had had some experience with microscopes from research I did at the University of Pennsylvania prior to attending medical school, so I brought in an eye and ear surgery microscope and sat down to work. The birth of microsurgery was assured by development of finer instruments, but it took another 10 or 12 years for it to really catch hold and become part of the general, vascular, neurologic, and plastic surgical cultures.

In fact, early on, most of my referrals were from women. Usually, they wanted to marry a vasectomized man and called because they had heard that we could use the microscope to reverse the vasectomy! We started doing the procedure – and we did a lot. But, each one was such an excitement: it kept the energy up and kept us working hard. Osler's magic word in medicine was "WORK". It's what makes the dull student bright, the bright student brilliant, and the brilliant student steady. We were so excited about what we were doing, that we wrote 18 papers that first year.

How did you develop the tools needed for microsurgery?

One of the greatest frustrations was working with American companies and not being able to get the microscope we wanted. Neither American Optical nor Bausch and Lomb felt they could sell enough operating microscopes to make it worthwhile, asking, "Can we sell 10,000?" Instead, we went to Carl Zeiss, in Germany, who were dedicated to research and development. I received my first Zeiss diploscope in 1960; that's a scope that two people can see into at the same time. I'm happy to report that we've exceeded the 10,000-diploscope mark and my original diploscope is in the Smithsonian Institute.

Besides trying to find interested partners to develop the tools, it was not easy convincing surgeons to use the technique. The issues were to collar as many surgeons as possible to try it personally and realize how impressive this technique was and to stop important people with no personal experience from saying, "Isn't that ridiculous, bringing a microscope into the operating room." People love new ideas, but reject new experiences. Education was the only way to get allies. As soon as you could demonstrate one-on-one that you could do something better, people converted. We used to challenge experienced vascular surgeons to match my work using the microscope: it was an unfair match-up; the microscope came out on top every time. Acceptance zoomed after an unpredictable critical number joined the ranks.

We've seen the same evolution with laparoscopic surgery. It was new to the US in 1989 and reached the critical acceptance point in just two to three years with people developing the skills, incorporating it into training programs and fellowships and giving laparoscopic and video-assisted thoroscopic procedures a secure place in modern surgery. There is still room, however, for improving the technique's utility. It brings to mind the word "haptic," which, like tactile, is an adjective descriptor of the sensation of touch. Even with all the devices and simulations, there's nothing haptic. You can see, but you cannot feel. I believe that haptic sense can be incorporated into a machine and a couple of robot companies are hard at work on this goal.

²¹ Schneidman D. Renaissance man endows award for surgical investigators. Bull Am Coll Surgeons 2005;90(May):10-14.

²² Jacobson JH 2nd, McAllister FF. The experimental production of intermittent claudication. Surg Forum 1956;6:258-61.

Philanthropy is important to you. Please describe your support of surgical societies and education.

We've been able to support many awards through academic medical centers and surgical societies. We established the Jacobson Innovation Award, within the American College of Surgeons, in 1994, to support novel ideas in surgery. The first award was given to Professor Francois Dubois for his development and promotion of laparoscopic cholecystectomy. This year, the 13th annual award went to Bill Pierce, at Penn State University and the Hershey Medical Center for his monumental work in developing implantable biventricular and single-ventricle ancillary hearts to serve as a bridge to transplantation. This award has given Joan and me tremendous pleasure. In fact, two years ago, it inspired us to initiate a second and forward-looking award within the College, the Joan L. and Julius H. Jacobson, II Promising Investigator Award, to recognize and encourage the next generation's innovative surgical thinkers.

We also support faculty positions at medical institutions. We're up to a total of five, but three vascular surgery positions are rather special, at the Mount Sinai School of Medicine, Johns Hopkins, and Hadassah-Hebrew University School of Medicine in Jerusalem. I wanted to put the three of them together so that they could get to know one another, share research, and learn from each other. To ensure this, we established the chairs with the understanding that the occupants would commit to having weekly internet conferences. For several years now, this weekly cross-pollination is eagerly anticipated as the convivial and productive interchange that we had envisioned.

Joan and I have also established a Research Initiative In Vascular Disease Conference with the Society For Vascular Surgery, which is jointly sponsored with the NIH and held annually near Washington DC. In 2008 it will be held on April 10 and 11 at the Renaissance Hotel in Washington, DC itself. Both young and experienced investigators attend, and this year, vascular medicine and cardiology researchers have been urged to join in, as they and we have many common interests. This gathering is small enough to engender lasting relationships and showcase young peoples' good work.

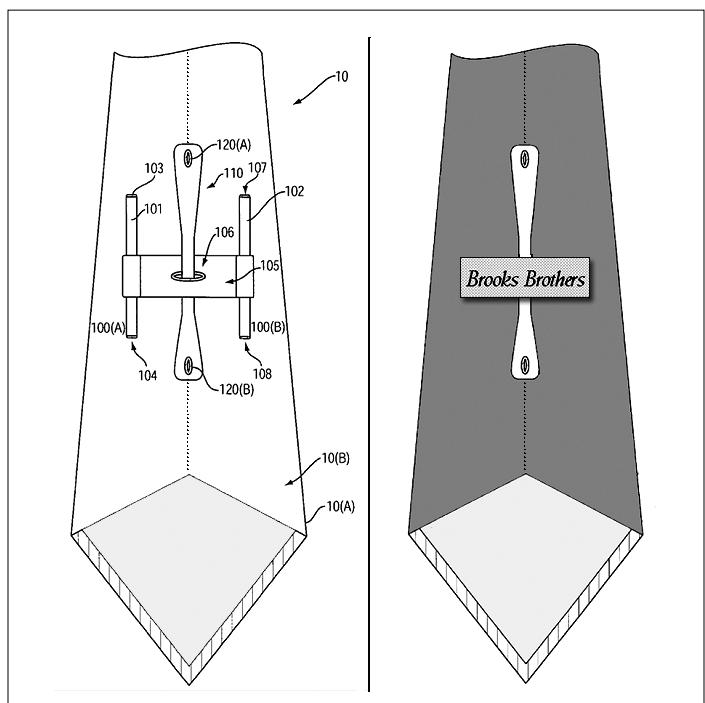
For a young surgeon, like yourself, just getting started, I would look first to the American College of Surgeons and work closely with your mentor. It's important to look at various groups that are already established in an area that interests you. It's hard to start by yourself, but I assure you that there are many foundations and philanthropic groups that are eager to provide support for young people with new ideas.

What do you fore see in the field of surgery?

The most exciting happenings in surgery in my time were the emergence and maturation of open-heart surgery and organ transplantation in the last half of the 20th Century. In the future, it's going to be genetics. I think the genome and the DNA work is going to eliminate diabetes, cancer, and the need for most surgical procedures that we do now. I believe all the hurdles in genetic medicine will be surmounted in your lifetime and that your generation, at my age, or sooner, is going to have all the genetic tools it needs, and there won't be a great role for surgery, except for trauma, which is something of a growth industry.

Ed Note: Eric Liu's interview of Dr. Jacobson was done this past June and saved for this issue, which focuses on philanthropy. As it happens, it also features two preeminent octogenarians. Jack, in "retirement," is by no means a one-pony act. You can purchase his 2002 book, at Amazon.com, complete with CD's, entitled "The Classical Music Experience: Discover The Music Of The World's Greatest Composers." The text and recordings span more than 450 years of classical music from the 15th Century Sacred Chants of Giovanni Palestrina to Leonard Bernstein's West Side Story Suite.

He is also an inventor. Currently he is involved in designing and developing a practical, light-weight, "waterbed" shoe to protect diabetic neuropathic feet and a "Blackberry" like device that will allow physicians to monitor their intensive care patients' data, when they are away from the hospital. Search the net for Julius H. Jacobson II, patents and you find a sit/stand/assisted walking wheel chair, and my favorite, his fore-in-hand tie retainer-protector. It is pictured below in its original patent format and in a simplified version to show how the device links the tie to ones shirt buttons, a gem in either form, as viewed by this non-user, Papillion devotee. ■



Jacobson fore-in-hand tie retainer-protector

JJSS at the American College of Surgeons Clinical Congress

Walter Winchell

Dateline: Tuesday, October 9, 2007, New Orleans, LA

"Good evening Mr. and Mrs. North and South America and all the ships at sea. Let's go to press." An astounding coincidence brought ACS and JJSS back to New Orleans and the Windham Hotel exactly 6 years, to the very days, after their meetings in New Orleans shortly after the September 11th terrorist attacks. The immediate area around the Convention Center and the Quarter showed only a few scars from the ravages of 2005 hurricanes, and the hotel keepers and restaurant personnel were especially welcoming, despite a general awareness that the College will not be returning to the city.

Ken Forde hosted the meeting, in Craig Smith's absence, which was attended by 66 members and guests, equating to a 1.5 Shrimps Per Attendee Ratio (SPAR). Vascular Surgeons were particularly well represented with Chiefs of Service Peter Lawrence from UCLA, Craig Kent, Jim McKinsey from Cornell-Weil/Columbia and Columbia, respectively, Jack Jacobson from Mount Sinai and Dave Tilson, from St. Luke's. Dave pioneered investigations into the role of matrix metalloproteinases in aneurysm pathogenesis and is also a consummate jazz pianist – let's see if we can have a piano for him in San Francisco, as well as a >2.0 SPAR.

The party was going along smoothly with quiet conversations among groups of old friends, when, suddenly a cabal of Columbia/NewYork-Presbyterian-NIH John Jones Research Fellowship supporters flashed their Columbia-blue, sloganized T-shirts, proclaiming "Invest in JJSS' Future." The shirts themselves may have a great future. These were "chumming" shirts: When the next crop blossoms, at \$250 and up a pop, in the Hamptons, on Martha's Vineyard, Newport's Yachts, and the beaches of Portugal's Algarve, Cannes, and Sardinia, the Fellowship will assuredly have a great future. ■



President Forde receiving a surprise from Jim Chandler



James McKinsey and Mark Hardy



Mark Hardy, Kenneth Forde, Steve Libutti and John Chabot



James McKinsey, Mark Hardy, Kenneth Forde, Steve Libutti and John Chabot

Make check payable to Columbia University, with
JJSS Fellowship noted on memo line



**INVEST IN JJSS'
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Kenneth Forde and Cindi Chandler



Thomas Tracy and Bret Taback



Peter Lawrence



Wayne Ambroze and Andre Campbell



Ahmed League, Barbara Barlow, Vaughn Whittaker and William Inabnet



William Inabnet and Mahmoud El-Tamer



Rosania Harley and David Tilson



Siva Vithiananthan and Steve Libutti



Soji Oluwole, Tolu Oluwole, Seum Sowemimo and Albert Adu



John Allendorf, Audrey Rosinberg, William Bertucci and Patricia Sylla



Paul Starker, Juan Nogueras, Wayne Ambrose and Mark Hardy



Barbara Barlow and Andre Zmurek



Joan Jacobson and Kenneth Forde



Roy Budnik and Theodora Budnik



Robin Williams, Vaughn Whittaker and Ijeoma Ejeh



Ruth Hardy and Tolu Oluwole

Save the date
Friday May 9th 2008

Join us for the 8th Annual
**John Jones
Surgical Society Day**
in New York City

