

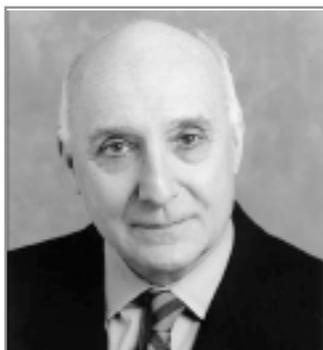
John Jones Surgical Society NEWSLETTER

Alumni News of the NewYork-Presbyterian Hospital/Columbia Department of Surgery



Morgan Stanley Children's Hospital of NewYork-Presbyterian, Columbia University Medical Center

R. Peter Altman, MD, Surgeon in Chief



R. Peter Altman

The Morgan Stanley Children's Hospital of NewYork-Presbyterian which opened in November 2003, is the only children's hospital in Manhattan and one of the largest in the country. It is one of the most technologically advanced children's

hospitals in the world and is dedicated to supporting a family-centered, high-tech facility in an innovative physical environment devoted exclusively to children. The new \$120-million building was funded entirely through philanthropy, including personal contributions of \$60 million by more than 600 employees of the financial firm, Morgan Stanley.

Building on Babies Hospital's record of breakthroughs in pediatric care, this ten-story, 265,000-square-foot hospital expands on its leadership positions in clinical care, research and the training of future physicians. The Morgan Stanley Children's Hospital of NY-Presbyterian, at the Columbia University Medical Center, provides the highest level care in every area of pediatrics and is world renowned for advances in neonatal and critical care, cardiology, oncology, neurology, radiology, as well as for its pediatric cardiac, general, and urologic surgery.

John Mack, Chairman of the Board of NewYork-Presbyterian Hospital and CEO, Morgan Stanley said, "For over 100 years, children have come through our doors to get the finest pediatric care available. Through the outstanding generosity of the many people involved, NewYork-Presbyterian will have a new state-of-the-art facility to carry on its tradition of providing the best care to those who need it most, for decades to come."

A key element in the design of patient areas revolves around the understanding of "family-centered care." When a child is ill, the entire family must be a part of the treatment and healing process. The philosophy of family-centered care also emphasizes the importance of teamwork in the treatment of children, and the

involvement of multidisciplinary groups of physicians and medical professionals to oversee a child's care from diagnosis forward.

Dr. Herbert Pardes, President and CEO, NewYork-Presbyterian Hospital said, "With the opening of the Morgan Stanley Children's Hospital of NewYork-Presbyterian, we now have the physical plant to match the expert clinical care and cutting-edge research that we do here every day. We know that when a child is sick, the entire family hurts. The stress of having a child who needs hospitalization is unimaginable. Recognizing this, our goal is to keep the physical and emotional needs of the child and his or her family at the heart of everything that we do. This new facility makes it possible."

The Morgan Stanley Children's Hospital houses inpatient, ambulatory and diagnostic services, including the largest neonatal intensive care unit and pediatric intensive care unit in the tri-state area. In addition to having floors dedicated to providing intensive care for children at every age, from the tiniest newborns through adolescents, there are individual floors dedicated to specialized services such as cardiology, neurology, oncology, GI, transplant and surgery. The Hospital has 100 medical/surgical beds, 41 pediatric intensive care beds (including 14 cardiac intensive care beds), and 62 neonatal intensive care beds.

The design of the neonatal intensive care unit, where the average length of stay is 17 days, reflects the hospital's attention to the needs of families during long-term stays. The unit provides parent amenities and enhanced privacy at every bedside. Surgical capabilities on the unit allow procedures such as PDA ligation, ECMO cannulation, CDH repair, NEC exploration, and vascular access to be carried out, minimizing need to transport these fragile infants to the operating room. The hospital features design elements with families in mind: the "Launch Pad" is a virtual home in the Neonatal Intensive Care Unit designed for parents to sleep in and prepare to take their baby home after a long stay.

In the pediatric intensive care unit there are private rooms with sleep areas for parents, family lounges, a family nourishment station, and support for clinical research. Both the PICU and NICU have their own dedicated pharmacies. Most of the patient rooms are

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NICU "Launch Pad"- a nurse-on call bridge to home care independence (note suction and oxygen above bassinette space).

single occupancy, measuring 382 square feet. Patient rooms are divided into three zones: a clinical space, a child space, and a family space, including a daybed for parents to sleep, a storage space for longer-term stays, a writing desk, and computer-ready internet access. Morgan Stanley Children's Hospital is the first in New York to offer patients and families new communication technologies, including handheld remote and wireless keyboard devices. Via closed-circuit television, patients too ill to leave their rooms can observe musical theater and other entertainment that are staged year-round in the hospital's Wintergarden. A flat screen television equipped with additional features, such as movies on demand and games, is standard in all patient rooms.

The computerized patient rooms are complemented by an emphasis on education and literacy. The theme of the new building is "Learning Through Literature," and it showcases artwork and murals inspired by such classic children's books as: *The Very Hungry Caterpillar*, by Eric Carle, *Where the Wild Things Are*, by Maurice Sendak, and *Alexander and the Terrible, Horrible, No Good, Very Bad Day*, by Judith Viorst. All featured books are available to patients.

To personalize each child's room, an area of wall space at the entrance of each room is intended specifically for a child's favorite artwork, messages or photographs. For the opening of the new facility, the Morgan Stanley Children's Hospital invited students from New York City's P.S. 128, Riverdale Country Day School from the Bronx, Ranney School from Tinton Falls, New Jersey, and Rockland County's Nyack Public Schools to "adopt a floor" by contributing original artwork from their students that is displayed in these spaces. In addition, each floor has a dedicated Child Life Center, a playroom that is a designated "safe space" from medical procedures where children can play or just relax. Inpatient units also feature a meditation room, a kitchen, a laundry room and a classroom staffed by New York City public school teachers.

"We understand how difficult it is for a child to spend time in the

hospital, and we understand the need to provide a nurturing environment," said Cynthia Sparer, Executive Director, Morgan Stanley Children's Hospital of New York-Presbyterian. "Our commitment is to remember at all times that the patient we are caring for is a child. We have top physician leaders in the field of pediatrics, and together with our nurses and the rest of our staff we dedicate our efforts to these children and their families."

The Hospital has been a magnet for recruiting new faculty. In the year before it opened, until the present, more than 150 physicians, across the spectrum of medical and surgical specialties have joined the staff. The surgical services are thriving. The operating suite, located on the fourth floor of the North building, underwent extensive renovation in 2002. We added two operating rooms bringing the total to eight dedicated pediatric OR's performing approximately 7000 operations annually. One room is outfitted for minimally invasive surgery, (KARL STORZ OR™). We also enlarged and enhanced the ambulatory waiting area. New programs have been launched, including: adolescent bariatric surgery, sports medicine, pre-natal pediatric surgery, and intestinal transplantation. The Hospital is the most active pediatric heart transplant center in the country. We offer both cadaveric, as well as living-related, liver transplants with unsurpassed results. The tradition of excellence in cardiac surgery continues with over 650 open-heart operations performed annually. A pulmonary/GI endoscopy suite is currently under construction, to be completed in early 2007, which will allow us to decant approximately 1000 procedures from the operating room each year; alleviating a growing need for additional surgical time.

The impact that the facility has had on patient satisfaction has been impressive with scores consistently at, or exceeding the peer mean. We are understandably proud of our ranking among the best Children's Hospitals by U.S. News and World Report. ■

*PICU
(Pediatric
intensive care
unit) room*



*Child life play-
room (note tan-
gle of wires
beneath com-
puters - think
JCAHO visit)*

A Columbia-centric History of Children's Hospitals and Pediatric Surgery

**James G. Chandler and Stephen E. Novak, Head, Archives and Special Collections,
Augustus C. Long Health Sciences Library, Columbia University Medical Center.**

Hopefully, you have just finished reading Peter Altman's wonderful description of the Morgan Stanley Children's Hospital. He has a right to be proud of this institutional gem, as he played a key role in its development and continues to do so in its administration. Peter represents an indirect historical link to another great children's health care center in Boston, through his mentor Judson Randolph, who trained with Robert Gross. Like Jud, and Peter's colleagues in training, Kathy Anderson, the immediate past president of the American College of Surgeons, and the late John R. Lilly, he sees good in everybody and wants us all to make the most of our lives. This philosophy is well expressed in a rabbinical quotation that Peter used to close his 2003 Presidential Address to the American Pediatric Surgical Association:¹

“Alas, for those who cannot sing, but die with all their music in them,
let us treasure the time we have and resolve to use it well,
counting each moment precious, a chance to apprehend some truth,
to experience some beauty, to conquer some evil, to relieve some suffering, to love
and be loved, to achieve something of lasting worth.”

Recognition that infants and children are the lifeblood of civilization and physiologically not just miniature adults took a long time to evolve. The first hospital dedicated solely to restoring the health of infants and children was L' Hôpital des Enfants-Malades, founded in Paris by Napoleonic decree, in 1802, which signaled the turbulent French Republic's dawning awareness of both concepts.² Yet, nearly half a century later, an 1843 survey of London hospitals revealed that there were only 26 children under age 10 among 2,400 hospitalized patients in all of London, in marked contrast to children under 10 years of age accounting for 21,000, or 41%, of the 51,000 people dying that year in England's capital city. Children were thought to be societally expendable and better off staying with their mothers, even when seriously ill or disabled.³ The opening of the Great Ormond Street Hospital For Sick Children on Valentine's Day, in 1852, after a 12-year struggle, led by Charles West, a Paris trained expert in Gynaecology and diseases of women and children, marked England's awakening recognition of the value and special needs of tiny people. “Sickness” was an integral part of both hospitals' titles to distinguish them from Foundling Hospitals that had existed since the 16th century and were essentially repositories for orphaned and abandoned children, wherein little was done to prevent death or alleviate deformity and abuse.

The Great Ormond Street Hospital (GOSH) was a major influence in developing specialized children's hospitals in the United States, beginning with the visit of Dr. Francis W. Lewis, of Philadelphia, who returned to establish the Children's Hospital of Philadelphia, which opened in 1855, to be followed by the Boston Children's Hospital, in

1869, and Babies Hospital, in New York, in 1887, on the north east corner of Lexington Avenue and 55th St.,^{4,5} GOSH, being a voluntary hospital exclusively for poor children, was funded by subscriptions, donations, and fundraising events, such as its Annual Festival Dinner, which often attracted eminent speakers, including Charles Dickens, Oscar Wilde, senior clergymen and members of the Royal Family. Until the establishment of the National Health Service, in 1948, the senior medical and surgical staff were not paid; they worked at GOSH, taking time away from their private Harley Street and elsewhere practices, as a social duty and for the opportunity to teach and to care for patients with varied and often unusual conditions. An identical practice pattern prevailed at Babies and Presbyterian hospitals until the advent of Medicare and Medicaid, in 1965.

Pediatric surgeons and anesthesiologists had to work long and hard to win their stars with pediatricians. Practitioners of pediatric medicine tended to greet surgical enthusiasm and innovation with skepticism derived from vivid personal memories, or recounted tales, of past surgical debacles. In 1814, Dr. Baffos was appointed Pediatric Surgeon to L' Hôpital des Enfants-Malades and served in that position for 30 years, distinguishing himself by an extraordinary reluctance to perform almost any surgical procedure.² Generally, patients healed or died in his clinic with conservative treatment, and with the approbation of his pediatric medical colleagues. Fortunately, there were several surgeons who operated upon adults as well as children and did tenotomies, amputations, and spine straightening procedures as visiting consultants, garnering a worldwide orthopedic reputation for the clinic. Paul Louis Benoit Guersant succeeded Baffos in 1844 and enhanced the hospital's reputation as a specialized surgical center through his skilled work and surgical activism, and by authoring *Notices sur la Chirurgie des Enfants* (Surgical Diseases of Infants and Children), which was published in fascicle form from 1864-67 and translated into English nine years later (often referenced as “Guersant, MP” for Monsieur Paul).⁶ It is one of four pediatric surgery texts that Bob Touloukian identified as having been published before 1900.⁷ Not surprisingly, these early texts, written just 13 to 20 years after the introduction of general anesthesia and less harried surgery, focus on cutting for the stone through a perineal urethrotomy and repairing traumatic injuries, while generally ignoring then largely untreatable, life-threatening, newborn anomalies. Guersant, however, recognized high and low types of imperforate anus, as well the superficial covered anus and differentiated his treatment accordingly, along lines that were to be carefully defined by Santulli, Schullinger, and Amoury more than 100 years later, in 1965.⁸ He also described the variety of fistulas associated with lower abnormalities, which in some instances, can masquerade as true anal openings well into adulthood.⁹

¹ Altman RPA. The good old days. *J Pediatr Surg* 2004; 39:253-7

² Anagnostopoulos D, Pellerin D. The cradle of pediatric surgery. *Prog Pediatr Surg* 1986;20:34-8.

³ http://www.ich.ucl.ac.uk/150/whole_story.html

⁴ Xydas S, Widman WD, Hardy MA, William E. Ladd: father of pediatric surgery. *Curr Surg* 2003;60:47-50.

⁵ Donovan EJ. Pediatric Surgery. In Humphreys GH, II: Department of Surgery Twenty-five Year Report 1928 to 1953, pp 49-53.

⁶ Guersant MP, Dungleison RJ trans: Surgical diseases of infants and children. Philadelphia, Henry C. Lea Pub 1873.

⁷ Touloukian RJ. Pediatric surgery between 1860 and 1900. *J Pediatr Surg*. 1995;30:911-6.



Dr. Charles West, an expert in diseases of women and children and GOSH's principal founder, taken 4 years before its doors opened, on St. Valentine's day, 1852.



View of GOSH ward in 1875 (note generous crib/bed spacing and varying age of patients).



Circa 1889

Babies Hospital at Lexington and 55th St. In 1902, this building was razed and replaced with a new hospital that was used until 1929.

John Cooper Forster, an assistant surgeon to Guy's Hospital and Surgeon to The Royal Infirmary For Children published the first English language pediatric surgical text in 1860, entitled *The Surgical Diseases of Children*. He was one of the few surgeons of his time to do tracheostomies successfully in young children for obstruction and retrieval of aspirated foreign bodies and actually performed a tracheostomy on one of his own children for diphtheritic laryngeal obstruction. Touloukian noted two additional English texts: the first of these, *Surgical Diseases of Children*, authored by Thomas Bryant, and published in 1863, comprises just 145 pages, and is based on presentations he had delivered in March of the same year before the Medical Society of London, as the holder of the prestigious Lettsomian Lectureship, named for one of the founders of the Society. Pediatric surgery seems to have been peripheral to Bryant's main professional interests, as he was a pioneer in ovariectomies for cysts and colostomies, practicing primarily at Guy's Hospital, which had relatively few pediatric patients. In this context, it is noteworthy that he selected children's surgery as an appropriate topic for a highly visible lecture series delivered before the cream of London's medical establishment.

Five years later, Timothy Holmes published a much more substantial work, *The Surgical Treatment of the Diseases of Infancy and Childhood* that is almost double the size of Forster's text and, unlike Bryant's, based on personal clinical experience, working as a surgeon at GOSH from 1859 to 1868. It is a comprehensive treatise, divided into three sections dealing with the surgical treatment of malformations, injuries, and diseases. Malformations seem to have been a primary interest. There are detailed descriptions and illustrations of how a cleft palate should be repaired, how to reduce an exstrophic bladder to an epispadiac fistula, and an anatomical display of a high ano-rectal anomaly. Holmes may not have personally made great innovations in pediatric surgery but his book seems to have filled a need: a second edition was issued the next year, which was quickly republished in the US and translated into both French and German. Besides its wide scope, the book's success owed something to the clarity of the author's prose, which is direct, free of unnecessary jargon, and probably also contributed to Holmes having been selected as the editor of *Gray's Anatomy* after Henry Gray's premature death in 1861.

Pediatric surgery passed through several phases as pediatric

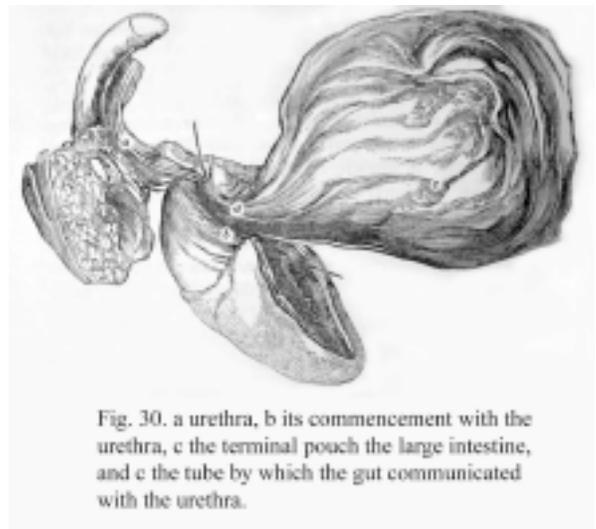


Fig. 30. a urethra, b its commencement with the urethra, c the terminal pouch the large intestine, and e the tube by which the gut communicated with the urethra.

High anorectal anomaly, for which Guersant advocated fistula ligation and a Littré (retroperitoneal) colotomy (from Holmes, as Guersant text has no illustrations).



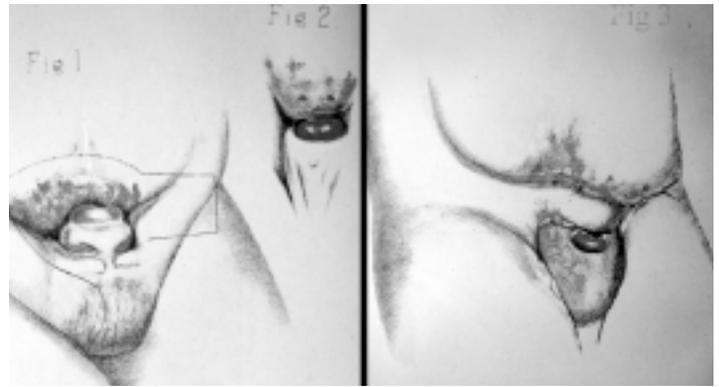
Fig. 28. Life size drawing of soft palate fissure to show space in which staphyloraphy would be performed with chloroform anaesthesia at an early age

Timothy R. Holmes (1825-1907) advocated early cleft palate repair [staphyloraphy (sic)] in his 1868 text, sometimes using lateral relaxing incisions, as described by von Langenbeck in 1861.

medical practitioners gradually recognized surgeons who were increasingly focusing on infants and children and their special physiologic needs. Pediatrician founders of German children's hospitals often performed their own operations until anaesthesia became available, greatly expanding the array of potentially beneficial procedures. They then began to invite selected visiting surgical consultants, who operated on adults as well as children, to do operations on patients who remained under the care (and, probably in their view, protection) of the pediatricians. William E. Ladd, and C. Everett Koop were among the first in the US to achieve independent care status, and then, only after

they had won their own personal stars, as detailed in Koop's¹⁰ entertaining address to the Surgical Section of the American Academy of Pediatrics, in 1997.

The evolution at Babies Hospital was similar. Dr. Edward Donovan desired to focus on the surgery of infants and children but still had to maintain an adult "Park Avenue" practice to earn a living, as evidenced by an 862 Park Avenue address at the end of his republication of Hezekiah Beardsley's 1788 description of congenital hypertrophic pyloric stenosis.¹¹ Dr. Donovan was one of two regular attendings at Babies hospital in 1929, at the time of its move to its 166th and Broadway location and remained chief of service until his retirement, in 1955. The Presbyterian and Babies Hospitals were adjacent but separate institutions until they merged in 1942. Several Presbyterian Hospital attendings frequently consulted at Babies Hospital before and after the merger, including José Ferrer, Edmund Goodman, Edward Self, Bob Hiatt, and Tom Santulli.^{5,12} Dr. Humphreys joined Dr. Donovan as a regular attending, in 1936, and later performed the first successful, staged reconstruction for esophageal atresia without a fistula, in 1945, before assuming chairmanship of the entire Surgical Department in 1946.⁵ Despite the merger and the obvious interest and achievements of Dr. Donovan and his surgical colleagues, the Babies Hospital Surgical Service remained under the Department of Pediatrics until Dr. Whipple's retirement when it finally became a division within the Columbia Presbyterian Medical Center's Department of Surgery. Organizationally, persistent pediatric patronage was necessary and



Closure of bladder exstrophy, converting it to an epispadiac fistula at a time when uretero-sigmoidostomies were just beginning to be explored. Fig. 1 shows flap outlines, Fig. 2. shows the prominent ureter openings when the penis is drawn down, and Fig. 3 shows completed repair (from Holmes).

embodied in the establishment of the Surgical Section of the American Academy of Pediatrics in 1948, principally because of North American surgical leaders' reluctance to recognize pediatric surgery as a distinct specialty, which was destined to take another quarter of a century.

Hezekiah Beardsley, who practiced in and about New Haven, CT, described a male child with frequent vomiting beginning in the first week of post uterine life. Despite repetitive vomiting and limited intake, the boy had managed to survive to die at age five years, when his autopsy, performed by Beardsley, revealed a persistent tight pyloric stenosis. Beardsley did not comment on a projectile nature, or the absence of bile, and the vomiting began a little earlier than is typical. Nevertheless, Donovan and others believed this to be the first description of the lesion causing congenital hypertrophic pyloric stenosis.

The subsequent development of an eminently successful surgical treatment, despite only a limited understanding of the pathologic process, epitomizes the exponential progression of pediatric surgery. Fast forward exactly 100 years to 1888, when Harald Hirschsprung,¹³ a Danish pediatrician, not a surgeon, reported two cases, providing a very detailed description of their clinical course and pathology, which established congenital hypertrophic pyloric stenosis as a distinct clinical entity. Gastroenterostomy became the accepted treatment but, with reservations, because its mortality rate was about 50% due to aspiration, sepsis, and unrecognized metabolic derangement.

This began to change in 1907, when Pierre Fredet¹⁴ suggested that a bypass anastomosis was unnecessary. The pyloric muscle should just be split longitudinally, leaving the mucosa intact and protecting it by covering it with strands of the circular muscle. Five years later, Conrad Ramstedt¹⁵ described a similar operation, but chose not to suture the circular muscle over the gaping mucosa. His operation rapidly became accepted around the world, despite the fractious outbreak of World

⁸ Santulli TV, Schullinger JN, Amoury RA. Malformations of the Anus and Rectum. *Surg Clin North Am* 1965;45:1253-71.

⁹ Samaniego AG, Wilson WH, Chandler JG. Symptomatic congenital lesions of the alimentary tract in adults. *Am J Surg* 1991;162:545-52.¹⁰ Koop CE.

¹⁰ Koop CE. A perspective on the early days of pediatric surgery. *J Pediatr Surg*. 1999;34(Suppl 1):38-45.

¹¹ Donovan EJ. Congenital hypertrophic stenosis of the pylorus. *Arch Pediatr* 1958;175:359-62.

¹² Cowles RA, Schullinger JN, Berdon WE. Thomas Vincent Santulli: a central figure in the development of pediatric surgery in New York city. *Surgery* 2006;140:113-7.

¹³ Hirschsprung H. Fälle von angeborener Pylorusstenose; Beobachtungen bei Säuglingen. *Jahrb Kinderhkl* 1888;28:61-8.

¹⁴ Dufour H, Fredet P. La sténose hypertrophique du pylore chez le nourisson et son traitement chirurgical. *Rev Chir*. 1908;37:208-53.

¹⁵ Ramstedt, C. Zur Operation der angeborenen Pylorus-stenose. *Med Klin* 1912;8:1702-5.

War I and has proven to be the permanent cure for infantile pyloric stenosis. Subsequently, it was found that whereas the pyloric muscle tumor persisted after a gastroenterostomy, it disappeared within 10-14 days after the Ramstedt procedure.

The etiology of infantile pyloric stenosis is not known. Despite its time-honored name, it is not congenital, developing after birth, typically becoming symptomatic around age three weeks but has been reported to begin as late as 5 months. Heredity is a factor: male infants are four times more commonly affected than females, and a female parent who had pyloric stenosis as an infant has a four-fold greater chance of having an affected offspring than a male parent with the same history would have. Observation of peristaltic waves from left to right and palpation of the "olive" to make the diagnosis was a point of honor for many years, but has given way to abdominal ultrasound, or less commonly, radiographic confirmation in this more litigious time with safer contrast and minimal radiation exposure. Similarly, rectus muscle splitting vs. gridiron and transverse incisions was debated for years, an issue now supplanted by open vs. laparoscopic approaches.¹⁶ In either instance, correction of dehydration and serious hypokalemic alkalosis, if it exists, remains a must before proceeding. By 1958, when Donovan reported on Beardsley's 18th century publication, he had accumulated a personal

experience of over 400 pyloromyotomies with essentially no mortality.

Tom Santulli succeeded Dr. Donovan, in 1955, and became the first surgeon at Columbia Presbyterian to restrict his practice entirely to the care of infants and children. Phil Wiedel and Baba (Shivaji) Bhonslay joined the group of attendings who came over from the adult side to assist in teaching and coverage. In 1958, Dr. Santulli established a pediatric surgical training program, which was then one amongst only seven programs in all of North America. He shepherded it through the watershed years of the founding of the American Pediatric Surgical Association in 1970 and the granting of Certificates of Special Competence in Pediatric Surgery by the American Board of Surgery in 1974, which led to training standards and formal accreditation. That same year, Congress passed the landmark Child Abuse and Treatment Act, signaling their concurrence in recognizing the special and precious nature of infants and children.¹⁷

As pediatric surgery became an increasingly specialized discipline, the crossover attendings tended toward less participation, leaving essentially a two-man service for several years with no faltering of the training program's, steady growth and output of many fine practitioners and scholarly leaders as shown in Table I. John Schullinger, who trained with Dr. Santulli and stayed on for a rewarding career, will expand on Tom

Table I - Babies Hospital Alumni Chiefs of Service and Training Program Directors

Under Tom Santulli (1955-1980): 30 trainees, 9 pediatric surgery chiefs, and 3 program directors

Arnold Salzberg - Medical College of Virginia, Richmond, VA

Ray Amoury* - Children's Mercy Hospital, Kansas City, KS

Tony Shaw - St Vincent's Hospital, New York, NY; University of Virginia, Charlottesville, VA; City of Hope, Duarte, CA; and Olive View-UCLA Medical Center, Los Angeles, CA

Bob Touloukian* - Yale University, New Haven, CT

Phil Exelby - Memorial Sloan-Kettering, New York, NY

Barbara Barlow - Harlem Hospital, New York, NY

Andy Pulito - University of Kentucky, Lexington, KY

Howie Ginsburg - New York University, New York, NY

Chuck Vinocur* - St Christopher's Hospital for Children, Philadelphia, PA

Under Peter Altman (1980-2000): 20 fellows, 7 pediatric surgery chiefs, and 2 program directors

Dan Mollitt - Jacksonville, FL

Mark Silen* - Doernbecher Children's Hospital, Portland, OR

Tom Tracey* - Hasbro Children's Hospital and Vice Chairman of Surgery
Brown University, Providence, RI

Peter Dillon - Milton S. Hershey Medical Center and Vice Chair of Surgery
Pennsylvania State University, Hershey, PA

Dave Lemon - University of New Mexico, Albuquerque, NM

David Kays - Shand's Children's Hospital, Gainesville, FL

Eric Lazar - and Chief of Surgery, Atlantic Health Care System, Morristown, NJ

Under Charlie Stolar (2000, forward): 5 fellows and counting

**Directors of pediatric surgery training programs*

¹⁶ St Peter SD, Holcomb GW III, Calkins CM. Open versus laparoscopic pyloromyotomy for pyloric stenosis: a prospective, randomized trial. *Ann Surg* 2006;244:363-70.

¹⁷ Shaw A. Historical review of pediatric surgical ethics. *Semin Pediatr Surg* 2001;10:171-8.

Santulli's accomplishments and those of Peter Altman and Charlie Stolar who followed after Santulli's retirement in 1980.

Tom Tracy, who trained under Peter Altman and now heads a pediatric surgical training program of his own, will tell us about "Life With Peter." Shinjiro Hirose who came to MSCHONY from San Francisco's epicenter of fetal surgery and Bill Middlesmith will recount their experience with the "EXIT" procedure, operating on the way out, so to speak, while retaining the placental connection as a membrane oxygenator. Eric Liu's regular "Where Are They Now?" feature will recount his recent interview with Robert J. Touloukian, a distinguished and devoted Santulli acolyte, and another trainee turned trainer.

Since excellent surgical training cannot exist without institutional excellence, Jonathan Susman, who heads Interventional Radiology, will describe the child- and family-friendly enhancements that MSCHONY brings to this burgeoning, less invasive technology. (Fortunately, an inside-out pyloromyotomy is out of the question.) Finally, John Driscoll, Jr., who has headed a very respected and vigorous department of Pediatrics since 1992, and John Truman, his Deputy Chairman, will complete this celebration of our Medical Center's historical and expanding role in the care of infants and children by giving us their perspective on a wonderful working relationship that makes for pleasant days and great patient care ■

Thomas Vincent Santulli And The Maturation of Pediatric Surgery At Columbia University and The New York-Presbyterian Hospitals

John N. Schullinger, MD



Thomas V Santulli

Tom Santulli was born in Brooklyn, NY in 1915, graduated from Columbia University and Georgetown University Medical School, and completed his training in surgery at the New York Polyclinic Hospital in 1944. He joined Columbia's surgical faculty shortly thereafter, working in both Presbyterian and Babies Hospitals. Dr. Donovan recognized Santulli's keen interest in pediatric surgery and clinical acumen, and soon made him his junior

partner. Eleven years later, he succeeded Dr. Donovan as Pediatric Surgery Chief, which at the time meant being the only true pediatric surgeon, overseeing a service of attending surgeons doing both adult and pediatric surgery and trainees rotating through as junior and senior assistant residents for a relatively small part of their overall surgical training. Dr. Santulli's talent and devotion to his patients, along with his central role in surgical care were widely recognized throughout the hospital and blossomed into wonderfully productive working relationships with Rustin McIntosh's pediatric department, Dorothy Andersen and Bill Blanc in pediatric pathology, and Dave Baker and Walter Berdon in pediatric radiology.

As a teacher, Dr. Santulli was a "classic." He was firm, self-disciplined, and endowed with extraordinary instincts and humanity. Every Thursday he led extensive rounds on Babies 9 wherein each patient's case was scrutinized in exacting detail. All patients were formally presented, every child examined, every wound exposed, and every chart reviewed. Complications and deaths were studied with minimal reproach and far greater emphasis on what was to be learned. He taught this way because he believed in teaching by example those qualities which he felt were important: attention to detail, intellectual honesty, and personal responsibility.

Seeing a new patient with him was almost always a unique learning experience: he would approach the problem almost as if it were the first time he had encountered it and lead you step-by-step through all

the reasoning that he and others had gone through in the past. Show him an infant with gastroschisis, and he would have you pondering why the defect was to the right of the umbilicus, why these babies did not have associated anomalies like omphalocele babies, why the exposed bowel surface had a matted felt-like appearance, and wondering how we might manage the intestinal edema and loss of eminent domain without compromising respiratory function. Somehow, you would be led to conclude that if enlarging the opening, warming the bowel with saline, and gentle stretching of the abdomen failed to permit easy reduction, constructing a temporary, erect, Silastic silo would allow the edema to subside and progressive abdominal acceptance of the intestines within several days. Tom's reputation as a teacher and master clinician extended well beyond the Medical Center and attracted attention to the service both nationally and internationally. It was a rare month that a prominent pediatric surgeon from abroad did not visit Babies Hospital to spend time with Dr. Santulli and his staff.

Happily, this fantastic transference of knowledge became focused on those who would use it most, with George A Hyde, Jr. becoming Dr. Santulli's first chief pediatric surgical resident in 1958. The 6- or 12-month residency evolved into a two-trainee, two-year fellowship in 1972 and was quickly accredited when the training process became formalized over the next three years. The program trained leaders as well as fine practitioners and continues to do so today. Dr. Santulli's stature as a pediatric surgeon and educator received its proper recognition in 1981, when he was elected President of the American Pediatric Surgical Association. In his presidential address, he clearly stated that, "...[only] the pediatric surgeon can render the best surgical care for infants, children, and adolescents."¹⁸

Dr. Santulli's contributions to the field of pediatric surgery are many. He wrote extensively on the etiology and management of imperforate anus, intestinal atresia, meconium ileus, and neonatal necrotizing enterocolitis (NEC). This latter disease, which sometimes responds to medical therapy even after developing intramural intestinal pneumatosis, makes decisions of when and if to operate extraordinarily difficult, consumed him during his later years. Today, his observations and recommended approach to treatment underpin our basic

¹⁸ Santulli TV. Pediatric surgery has grown up. *J Pediatr Surg* 1981;16:779-84.

understanding of the disease and its management, making his 1975 seminal paper a must read for all who care for these infants.¹⁹ With Dr. James A. Wolfe, a pediatric hematologist and oncologist, Tom also established one of the first multidisciplinary pediatric oncology clinics, and certainly the first in the New York area.

In 1980, Tom Santulli retired after 25 years as chief of service, and R. Peter Altman was recruited from the Washington (DC) Children's Hospital to become his successor. The Santulli era had ended, but its legacy formed the foundation for the extraordinary advances in technology, research, and patient care that were to come. In 1982, Peter became the first occupant of the newly created Rudolph N. Schullinger Chair in Pediatric Surgery, honoring my father, one of Columbia's most respected surgeons, who, in years past, was frequently asked to operate in Babies Hospital.

During Dr. Altman's tenure, the strength and stature of the service grew enormously to become one of the most sought after training programs in the country. The surgical service, which was being provided, essentially, by just two pediatric surgeons, expanded to a 12-man service, enabling it to reach out into the community, bringing heretofore unavailable surgical expertise to increased numbers of children and, at the same time, increasing the exposure of the fellows to an expanded patient population. Dr. Altman also oversaw the expansion of the operating rooms in Babies Hospital from two to eight, staffed seven days a week, with around the clock coverage by the division of pediatric anesthesia. Non-cardiac thoracic surgery was incorporated into the pediatric surgical service, strengthening its training program, while continuing to afford these patients the best of surgical care. The surgical service was further strengthened when Dr. John M. Driscoll, Jr. assumed the Chair of Pediatrics in 1992, and he and Peter re-established the productive collegiality that had characterized the McIntosh era.

Peter was a demanding chief of service, a superb role model for young academically inclined surgeons, and a kind and helpful hand to patients, students, house officers, and junior colleagues. His expertise in the treatment of biliary atresia and diseases of the liver and pancreas attained worldwide recognition, directly helping the patients who were referred for his care and, indirectly, hundreds of other patients who benefited, and still do, from his many publications, lectures, and teachings. Peter took a widely respected service and unlocked its full potential, training 20 pediatric surgical fellows, seven of whom became service chiefs and two who became training program directors (Table I). In recognition of his guiding hand upon the development of pediatric surgery and his many contributions to the field, Dr. Altman treaded again in Dr. Santulli's footsteps, as President of the American Pediatric Surgical Association in 2002.

Peter's concern for Babies Hospital and the care of children did not end with his retirement as chief of service in 2000. He immediately immersed himself in the planning, development, and funding of the new Morgan Stanley Children's

Hospital of New York Presbyterian, contributing in no small measure to the realization of a center that would provide the very best of care for infants and children and, for physicians, a superb, well-equipped facility to enhance their good work. It hardly needs stating, but this new facility has really solidified the surgical service's reputation for the finest surgical care of infants and children causing it to be recognized not only in the greater New York area but nationwide and abroad.

Dr. Charles J. Stolar took over the service immediately upon Peter's retirement as the second Rudolph N. Schullinger Professor and Chairman of Pediatric Surgery. Charlie was one of Peter's earliest recruits, coming up from Washington Children's in 1982. Imbued with Babies Hospital's culture and traditions, he was the prime choice to continue the service's dynamic development, carrying it forward in the face of the increasing funding challenges and bureaucratic impediments. Innovation and creativity have hallmarked his career at Babies and MSCHONY. His contributions include the development of a first rate program of laboratory and clinical research, the introduction and development of one of few ECMO (Extra-Corporeal Membrane Oxygenator) programs in the country, and the establishment of a Center for the Study and Treatment of Congenital Diaphragmatic Hernia. Since taking over the service he has been instrumental in creating a Center for Prenatal Pediatrics, along with the Departments of Pediatrics and Obstetrics and Gynecology, for which he is a Co-Director. He has also initiated clinical and research programs in adolescent bariatric surgery, vascular malformations, cancer cell biology and angiogenesis, and intestinal transplantation and rehabilitation. These activities place heavy demands upon Charlie's time, but his fellows consistently attest to his intense interest in their training and career development, and to the fine example set for them by Dr. Stolar's compassionate and devoted attention to patients and their families. The Stolar era has just begun, but all indications predict that it will be an extraordinarily creative and productive period. ■



Henry Cooper's bust of Rudolph N. Schullinger returns home. Kenneth A. Forde (right), and John N. Schullinger (center) presenting the bust to Charles J. Stolar.

¹⁹ Santulli TV, Schullinger JN, Heird WC, et al. Acute necrotizing enterocolitis in infancy: a review of 64 cases. *Pediatrics* 1975;55:376-87.

Life With Peter aka “The Bald Guy”²⁰

Thomas F. Tracy, Jr., MD, Surgeon in Chief, Hasbro Children's Hospital, Providence RI



Thomas F Tracy, Jr.

Irrespective of what Peter has written about Columbia's “New Testament” as a remarkable design for children's health care, I see more constancy than change since I left Babies Hospital in 1988. Terre Considine still answers his phone, as she has for 20 years, Laura Flanagan, a nationally known, can-do, and all-knowing pediatric nurse practitioner, keeps the service humming, and Charlie Stolar and a number of outstanding faculty

accomplish great things in accord with the usual and customary Altman standard - Excellence! These unchanging faces are not just groupies along for the ride: they are holy acolytes, who committed themselves at a time when Peter and his dreams only pretended to be innocent and now revel in seeing them fulfilled.

Life with Peter in The Babies Hospital was simple and straightforward. The hospital's name was both our guiding covenant and the cause for Peter's determination to make us the very best pediatric surgeons we could be. As the faculty grew beyond “Santullisaurs” and Charlie to become largely graduates of our own program, Peter remained confident in every faculty member's ability and respectful of their collective diverse experience, except on Thursday afternoons in Mortality and Morbidity conferences. Those were the days when I was Jeff. In fact, everybody was Jeff, even if you were a David (Rustad) or a Mark (Silen). The pattern only changed if you were a Peter (Dillon) because “the bald guy” could never forget that name, which made some of us envious.

Actually I did not become Jeff until I became a Chief Resident because, in those days, first year fellows were nameless. However, if during the first year, you passed Peter's major thoracic case scrutiny to deliver mediastinal masses without instruments, you were generally awarded a second serving of Pectus (excavatum) Fridays. Becoming a Jeff was one of those existential life transitions that exceeded graduation, marriage, or even birth, in magnificence. Beyond that, you really knew you had arrived when Dr. Altman would take you on rounds and allow you, Jeff, to give your own 10cc/kg boluses, always checked by a deeply implanted admonition “not to give too much.”

Weekend call with Peter was long and lonely. There was plenty of teaching in the OR, as he masterfully directed Charlie through a giant omphalocele. We were always reminded that Peter “had the largest practice” - but that was in Washington, where he was renowned for biliary tract disease and correction of pectus excavatum - his renown came north, but his practice was purposefully curtailed to pursue his focus on us and his noble administrative goals. John Schullinger, a profoundly caring and second-generation Columbia Presbyterian surgeon, actually had the largest practice by far.

Upon his arrival, Peter set the highest standards for the

fellowship match. To get into the Babies program you had to have finished four or five years of residency, done some credible research and either sing Colgate fight songs, know “Arnie” (Coran, in Michigan or Salzberg in Richmond), pretend to like the Giants, or somehow dazzle Peter. Before you could get out, he had to be convinced of your surgical promise. Then, there would be a memorable, right-of-passage, giant, family party, on Central Park West, to celebrate your departure to a highly recommended, and potentially iffy job that came with a built in land line to Peter, ushering in an era of 1-800 calls for advice, support, and even a new job, if necessary.

Until Dr. Santulli's complete retirement, Peter crafted a program that kept spaces open for him to roam and corner us in the 2nd floor, clinical exam room, which held a monstrous, old copying machine. Somehow, Dr. Santulli et al could never quite master filling its paper tray; whereas, we had readily demonstrable expertise. This gave us the opportunity to share vicariously in the cases of Ray, Tony, Jim, and Bob as they were led by a mentor who created not only the place for their training but also the profession for their careers. Peter left plenty of room for those not long departed ghosts. He also fostered in every one of us, the special respect he held for his equal partner for teaching the soul of pediatric surgery. John Schullinger shared all of his Babies moments and patients with us, demonstrating how a caring touch and voice have a special place in a clinical academic department.

Charlie followed Peter from DC to New York to help achieve Altman's dreams and for an even higher purpose. His gifts in basic and clinical science garnered grants, built interdisciplinary teams, and brought a new world of ECMO that was locally infectious and nationally remarkable. Peter watched, watered, and waited, as we all grew together and added further strength and diversity to our mix, as he saw fit. Jessica Kandel who had worked in Judah Folkman's angiogenesis laboratory joined the faculty to focus on neoplastic disease, and Steve Stylianios became director of the trauma program, later to be joined by Bill Middlesworth, both home grown. Peter's alliances outside of the institution gave us further experience in pediatric surgical oncology at Memorial Sloan Kettering and anorectal reconstruction at Schneider's Children's Hospital, on Long Island, with Alberto Pená. Peter really built a comfortable clubhouse for outside contributors to our training and saw to it that we had opportunities to dine with New York's surgical giants.

On a slow day, when your Chief Resident was in the OR with John, and Charlie was in the lab, a junior resident might occasionally observe a different, louder Peter go toe-to-toe with someone, insisting on respect and access for his fellows and faculty, or lambasting a specialty attending who had abandoned an infant patient in lieu of an insured adult, well before the film, “Do the Right Thing” hit the screens. But, even greater than guardianship, insistence on learning was his real thing. The juices really flowed in pathology conferences about any liver or tumor case. A major, “pearl dropping” CPC (clinical pathological conference), the kind that normally take a couple of days of

²⁰ Ed Note: Expressions of love and admiration take many forms.

preparation, would spring forth, right before our eyes. These sessions were complimented by near dawn exchanges with Walter Berdon, John, and, Sarah in radiology, which took us far into the reaches of decades of collected experience, only to find yet another case that no one had ever seen before. Fortunately, these great sessions weren't wasted on just us. Usually they played to an audience that included visiting international faculty, fellows and student, who like us, could sense not only the clinical achievement but, also, the genuine desire to share the knowledge that Babies had amassed for generations.

Peter's presence assured deference for pediatric surgery, and his faculty, nurses, fellows, and residents enhanced its respect. He allowed all of us to develop our own administrative trials and tenor, as if by magic, he could erase the anarchy of the day as he left for home to Hanna, Jimmy and Robbie. The door to his office was always open except on Wednesday afternoons, when he played golf with Herschel Sklaroff, but we all knew that he was pursuing important projects and was not interested in idle chat. On the rare occasion when you did sit in his office you knew that he wished that the event were not as rare as it, in truth, was. It made you feel kind of special. But, the truly significant time was rounding with Peter the Great. You showed him the color of the saved stool, he asked you what you thought about its pale gray color, he then recited chapter and verse for the students, and you knew that the next day would be a very special day in the OR with the master of biliary surgery.

For those of us who have had a chance to get back to Columbia, it is great to see what those special days have meant to the institution. I wonder if today's observers of the "History Wall" even have an inkling of the impact that Peter and those around him had on the surgery service's metamorphosis from two small ORs and a two or three man faculty. In fact, Peter himself may not know and, with characteristic humility, may care more about how the Giants are going to do on the next fall or winter Sunday. I do know, however, that the dreams that he floated a quarter of a century ago are largely fulfilled, and that those who lived through parts of the whole with Peter should be proud and grateful for those precious times. ■

Not Quite Fetal Surgery: The EXIT Procedure

Shinjiro Hirose, William Middlesworth, and James G. Chandler

Forty years ago, Alfred de Lorimier²¹ began to study the lung hypoplasia frequently associated with congenital diaphragmatic hernias (CDH) in fetal sheep at the University of California in San Francisco (UCSF). Ewes come into estrus in the late fall, have a gestation period of 145 to 153 days, and often produce twins, mandating a very regulated laboratory schedule and a busy first half of the year. Dr. de Lorimier and his colleagues showed that inserting plastic spheres into the thoracic cavity in 100-day fetuses, or creating a diaphragmatic defect, caused equivalent lung hypoplasia and early post partum death. If they used a balloon instead of spheres, deflating the balloon about a month before parturition allowed normal lung development to resume and resulted in nearly 100% post-partum survival. Michael Harrison joined the group that he was destined to head in 1979, and showed that occluding the fetal trachea prevented the lung hypoplasia and, through lung expansion, even pushed viscera back into the abdomen that had entered the chest through a surgically created defect. This birthing of fetal surgery was marred by a laboratory elevator operator's death, in 1979, associated with Q fever. Human Q fever is a benign, flu-like, zoonotic disease caused by *Coxiella burnetii*, a hard to kill bacteria species that is carried chronically in sheep and concentrated in placental tissue and amniotic fluid. The group persevered despite State and Federal over reaction to this isolated tragedy (the immediate cause of death being a pulmonary embolus) and continues to lead the field. Their preeminence is now being enhanced by the good work of their disciples in several major children's hospitals, including one who was unable to resist MSCHONY's magnetic appeal.²²

These promising findings in the laboratory, even when bolstered by less invasive percutaneous, per-uterine techniques and marked improvements in prenatal imaging, have been difficult to translate into effective clinical practice or justify with controlled trials, except for simple maneuvers like clipping, lasering, or placing a tube cystostomy. There are multiple reasons for this, the first being the omnipresent

risk of inducing premature labor. When de Lorimier began his studies, posterolateral CDH presenting with respiratory distress at birth carried a greater than 50% mortality, despite reduction of the herniated viscera and closure of the defect and irrespective of the timing of operation. This high mortality no longer exists due to minimizing barotrauma and, if needed, ECMO support. Moreover, then, as now, Bochdalek hernias present dichotomously with either high-risk early respiratory insufficiency or, somewhat less commonly, later gastrointestinal obstruction after feeding for 7 to 10 days and having an excellent prognosis. Who is where in this dichotomy cannot be differentiated in utero, further tipping the balance towards post-partum management, especially at MSCHONY, with our specialized



Partially delivered infant with cervical teratoma in preparation for resection

²¹ de Lorimier AA, Tierney DF, Parker HR. Hypoplastic lungs in fetal lambs with surgically produced congenital diaphragmatic hernia. Surgery 1967;62:12-17.

²² Hirose S, Farmer DL, Lee H, Nobuhara KK, Harrison MR. The ex utero intrapartum treatment procedure: looking back at the exit. J Pediatr Surg 2004;39:375-80.

prenatal diagnostic-counseling and CDH study teams.

The Ex-utero Intrapartum Treatment (EXIT) procedure was initially devised to reverse intentional intra-uterine balloon occlusion of the trachea. It has obvious utility for dealing with other causes of airway obstruction, including large neck masses, microstomia, and congenital high airway obstruction syndrome (CHAOS), and can support a thoracotomy to remove thoracic teratomas, large congenital cystic adenomatoid malformations (CCAM), and repair of a CDH. Decisions to employ the EXIT strategy are highly dependent on serial, top-quality prenatal imaging. The procedure involves delivering the infant by cesarean section, without dividing or impeding flow through the umbilical cord. Profound uterine relaxation is essential and is achieved with inhalation anesthesia and a combination of tocolytic agents including magnesium, terbutaline, nitroglycerine, and calcium channel blockers. The uterine incision is made after assuring, ultrasonically that the placenta is out of the way, controlling incisional bleeding with special large staples analogous to the scalp clips used by neurosurgeons. The fetus needs supplemental intra-



Crowded operating “theater” during EXIT procedure

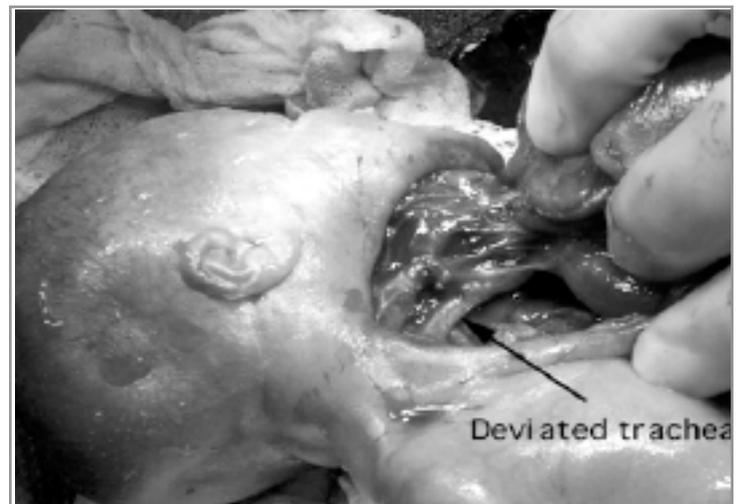
Table II EXIT Procedures at MSCHONY

Anomaly or tumor	Procedure	Outcome
Microstomia	Intubated	Died due to pulmonary complications
CHAOS	Tracheal stenosis intubated	Severe chromosomal abnormality-support withdrawn at parents' request
CHAOS	Tracheostomy	Died due to severe pulmonary hypoplasia
Cystic hygroma	Intubated	Died due to anaesthesia complication during a subsequent operation
Teratoma	Excised and intubated	Extubated and well
Teratoma	Excised and intubated	Extubated and well
Teratoma	Excised with completion tracheostomy	Feeding well with tracheostomy in place
All		43% survival

venous anesthesia and constant monitoring with pulse oximetry and duplex imaging of umbilical blood flow and fetal heart motion. There are clearly two patients in the room, and it has to be a large room because this is a big multidisciplinary team effort, in which everyone must know his or her precise role with minimal cross direction.

So far, we have done seven EXIT procedures, which are summarized in Table II. All procedures were completed successfully without maternal morbidity or mortality. The 43% infant survival needs to be considered in the context of near 100% mortality for similar patients without the EXIT strategy.

The combined reported EXIT experience from UCSF and Children's Hospital of Philadelphia comprises 83 patients with 53% survival. Extra uterine placental support has been carried on for as long as 2.5 hours. Infants with neck masses were predominant among the survivors. Patients with CDH accounted for 34 of the 39 deaths, with a CDH specific survival of 25/59, or 42%. We conclude from their data and ours that the EXIT procedure has similar maternal complication rates to those of routine C-section and is a reasonable strategy to pursue in the absence of severe chromosomal abnormality. There also appears to be a bright future for surgeons, who work hard to give the best care for these difficult patients: Dr. de Lorimier now resides in a lovely Alexander Valley vineyard, producing exceptionally fine California wines.²³ ■



Resection of teratoma

²³ <http://www.delorimierwinery.com/wines.html>

Where Are They Now?

Eric H. Liu, MD



Robert J. Touloukian

Dr Robert J. Touloukian graduated from Columbia College and Columbia's College of Physicians and Surgeons. His post-graduate training was in the combined Columbia-Bellevue surgical residency program, from 1960 to 1965, and followed by a one-year pediatric surgery fellowship at Babies Hospital, in 1966. He became an attending surgeon at Yale-New Haven Hospital, in 1968, with appointments in both surgery and pediatrics. He quickly rose to

national prominence and became Chief of Pediatric Surgery in 1973. Dr. Touloukian founded Yale's pediatric surgery fellowship training program in 1994 and held the position of Chief of Pediatric Surgery for 30 years, stepping down in 2003. He served as Chairman of the Surgical Section of the American Academy of Pediatrics in 1993 and followed Drs. Santulli and Altman as President of the American Pediatric Surgical Association in 2004. His many clinical and research publications have covered the panoply of pediatric alimentary tract diseases, lesions of the neck and thorax, metabolic disorders and trauma, including editing two well regarded, pediatric trauma text books. In his free time, he enjoys sailing.

Is pediatric surgery truly the bastion of "General" surgery?

We take great pride in being true general pediatric surgeons, based on our having the best understanding of the physiology of infants and children. The pediatric surgeon is the uncontested surgeon of record for alimentary tract diseases, major trauma and the care of solid tumors of infancy and childhood, but other areas of our domain are under increasing challenge. [The American Board of Urology is in the process of initiating sub-specialty certification in Pediatric Urology, which is likely to appropriate all reconstructive urological surgery.²⁴] Although pediatric surgeons have always laid claim to head and neck surgery, otolaryngologists, pediatric gastroenterologists and pulmonologists are encroaching upon our endoscopy practice. Pediatric surgery training programs must continue to emphasize the importance of expertise in these areas, or we will lose them to other disciplines. Our objectives are to be accessible and reassuring to anxious family members, good diagnosticians, and excellent, technically proficient, surgeons. These qualities, and our understanding of age-specific physiology, will continue to define our role as the primary providers of pediatric surgical care.

What are you looking for in candidates for pediatric surgical training?

Most candidates' credentials are almost indistinguishable because residents seeking pediatric surgical training are all highly qualified individuals who have been counseled and prepped to fit through a defined narrow funnel. You review what is on paper; you read between the lines in the letters, but what it really comes down to is whether that person is going to be a good fit in your own institution. Each program has a slightly different working environment and looks for an individual who will mesh well with the staff. Consequently, the interview is a critically important part of the selection process. Since most of the candidates are trainable in pediatric surgery, we look for things that indicate top-level motivation, ability to work within a team, and potential for academic excellence.

What are some important steps to achieving positions of leadership in surgery?

A leadership position in your own institution is important

because it allows you to guide the education programs and to work with hospital administration that provides the financial support necessary for a good patient care environment. Achieving that position takes a combination of hard work at the bedside, in the laboratory, and to some extent, national recognition. Leadership positions across the country go to people who distinguish themselves in the "triangle" of patient care, research, and education. You do not start by saying "I want to be the Chief": you get your good start by being enthusiastic about these three components. National leadership in pediatric surgery is not a goal you should actively seek because there are so few positions and so many qualified individuals. These are really special honors that recognize individuals who have made exceptional contributions to the field, characteristically, without any thought of eventual personal aggrandizement. There are, however, numerous committees of importance in all the national organizations that require effort and are meaningful to the success of the organization and fulfilling to those who serve on them.

How do you see the balance between professional and personal life?

From the perspective of a father with three sons, it was important to have a major presence without neglecting the professional career. It does not take an enormous amount of time to be an exceptional role model and father. For example, the dinner hour is a particularly precious time. I can only speak for myself, but I always tried to be at home if at all possible before the children went to bed. Then, if necessary, I would go back the hospital to work at my desk, see patients, or do surgery. But, I tried to find a point every day to be with the family. Most important is having a positive attitude. The surgeon who comes home tired and grouchy can have a huge negative impact: it doesn't take much to turn your family off.

How did you like Columbia?

I have many fond memories from the combined Columbia-Bellevue program, but my recollections from the rotations in pediatric surgery do linger. Tony Shaw took me through my first appendectomy - an experience you never forget. Ray Amoury was my chief resident at Bellevue and an attending when I arrived at Babies. He is a great role model, and a leader in pediatric surgery. Tom Santulli, who was Chief at the time, was a man with an immense fund of knowledge that he projected at the bedside through his comments and questions. He was very critical of inadequate patient care and expected the highest standard from his residents. Bedside rounds with Tom were thorough, and he enjoyed examining each patient. John Schullinger, a mentor and close friend, was and is totally committed to the care of his patients, an outstanding surgeon, and a major role model to a number of trainees at the Babies Hospital. When I finished my training at Babies, I went to George Humphreys, Chairman of the Department, at the time. Those of you who remember Dr Humphreys will remember that he was not readily approachable. He said, "I think it is time you cut the umbilical cord." In retrospect, I thank him for allowing me to become my own person.

Are you ever going to stop operating and what are you going to do?

This is a very difficult question to answer, since I remain active, taking call and being totally involved in pediatric surgery. I find it difficult to change my lifestyle. I understand that there are other interesting things to do including serving on the Admissions Committee, promoting development for the hospital and our section in pediatric surgery, and being active by attending surgical education conferences. I know that there is a future for a senior pediatric surgeon, who can still be very involved and pass on "wisdom." Right now I still enjoy the satisfaction of the operating room. On the side, I must admit that I enjoy the summertime opportunities to be out for a sail with my wife and family. ■

²⁴ Ed Note: Personal communication, Stuart S. Howards, Executive Secretary, American Board of Urology, October 10, 2006

Interventional Radiology in a Child's World

Jonathan Susman, MD, Clinical Director, Vascular and Interventional Radiology



Jonathan Susman

MSCHONY has the busiest, best-equipped pediatric interventional radiology (IR) program in the area. We provide state-of-the-art, minimally invasive, image-guided care in a child- and family-friendly manner that encompasses all contacts from first impressions, through performance of the procedure and post-procedure follow-up. This combination of technical excellence and compassionate care is entirely consonant with the hospital's mission, as well as being inherent to the nature of IR's less invasive approach to solving many clinical problems.

Pediatric procedures have been at least a limited part of the repertoire of IR physicians at Columbia for decades. They required patients and their families to trek over to the adult IR area, or to have their procedures performed in a less than ideally equipped operating room. In 2003, pediatric IR, interventional cardiology, and magnetic resonance imaging (MRI) were given a series of suites, serviced by a spacious and well staffed recovery room in the new 3 Tower. The IR suite was equipped with a state-of-the-art Siemens digital angiography unit and a color Doppler ultrasound scanner. CT procedures continued to be performed in the main Radiology department on the GE spiral CT scanner.

This new home allowed for a rapid and much needed expansion of IR services. We now could easily provide fluoroscopic and ultrasound guided venous access in even the smallest of patients, including peripheral intravenous central catheters (PICCs), tunneled infusion catheters, and double lumen dialysis catheters. Enteral feeding tube placement could be tailored to meet the needs of a wide variety of patients, using catheter and guidewire techniques, in conjunction with oblique imaging. A tube could be placed wherever it needed to be, whether in the stomach, proximal jejunum or beyond multiple strictures. Abdominal and pelvic abscesses, empyemas and pneumothoraces could be precisely targeted and drained with small, comfortable tubes. The new digital angiography unit is used to do cholangiography, aortography, selective angiography, arterial and venous stenting, placement of a transjugular intrahepatic portacaval shunt (TIPS), or liver biopsies, and superselective arterial embolization. Patients are now commonly transferred to MSCHONY specifically to have their bile ducts stented for a blunt trauma bile leak, to have their renal arteries stented to treat refractory hypertension and azotemia, to have a TIPS placed to treat variceal bleeding, or to have their tumors embolized either preoperatively, or as stand alone treatment.

A nurse practitioner (NP) was hired to be a first contact for physicians and families to accommodate our rapid expansion. The NP is a constant presence in the pediatric IR area to facilitate consults, schedule procedures, and aid in post-procedure care. In addition, the section has a dedicated IR technologist and nurse. The pediatric anesthesia department is remarkably available for our ever increasing numbers of elective and emergency cases that require general anesthesia.

MSCHONY is dedicated to the treatment of disease while endeavoring to make patients and their families as comfortable as possible. We facilitate this worthy goal by diagnosing and treating patients in the least invasive fashion possible. We harness technology to treat with less risk, less discomfort, and with an eye toward faster recovery. We strive to get patients quickly to where they really want to be, feeling better at home with their families. ■

Pediatrics and Pediatric Surgery at Columbia

**John M. Driscoll, Jr., MD, Reuben S. Carpentier Professor and Chairman and
John T. Truman, MD, MPH, Professor & Deputy Chair Department of Pediatrics**



John M Driscoll, Jr



John T. Truman

Pediatricians at Columbia have been blessed with not only the finest pediatric surgeons, but also the most companionable pediatric surgeons in the country. The tradition of harmony, cooperation, mutual respect and warm friendship goes back well beyond our memories. Not only is there the satisfaction that any consultation to a pediatric surgeon will result in the wisest surgical decision being made and the best surgical outcome forthcoming, but also the knowledge that the consultation interface will be educational, enlightening, and enjoyable. How could we pediatricians be so lucky? It really seems to be the Columbia Tradition all round and dates back to the days of John Jones, John Augustine Smith, and even Samuel Bard, himself. Bard, the quintessential medical man, who was professor of medicine, obstetrics and pediatrics at Columbia from 1769 to 1821, drew a sketch of a silver endotracheal tube in his 1807 Textbook of Obstetrics and Pediatrics, and described its use "as recommended by John Augustine Smith, Professor of Anatomy and Surgery in the College of Physicians and Surgeons of New York". Bard disliked surgery but was very fond of his surgical colleagues, and gave them credit when credit was due whenever he could.

The long and inspiring history of Pediatrics at Columbia is told in our new MSCHONY lobby, which features a 120-foot long "History Wall" which has abundant photographs and accompanying text, plus non-stop video screens examining past and present day pediatrics here at Columbia. All readers of this article are cordially invited to visit our new building, which is not only state-of-the-art but clearly built to last as long as Columbia itself. The Wall divides our history into seven sections, much as Shakespeare divided the Stages of Man. The first section is "The Tradition," which begins with the early King's College/Columbia days, of which, we can be justifiably proud. The second section tells the story of "Establishing the Babies Hospital" in two brownstones at the corner of Lexington Avenue and 55th Street. The next section intro-

duces “The First Golden Age” which coincides with the building of the formidable 10-story brick building, which replaced the original brownstones and served as the Babies Hospital from 1902 to 1929. This building stands to this day, now occupied by several small businesses.

The “Second Golden Age” coincides with the building of our present north building and dates from 1929 to 1969. This was the era of the creation of the pediatric sub-specialties, of which pediatric surgery is surely one of the most eminent. In surgical parlance, we think of it as “The Santulli Era”. Our older colleagues remember this as an era of goodwill, graciousness, personal attention to detail, and a restless curiosity as to cause, effect, and progress. Dr. Santulli set a tone from the top, and this determined the course for the rest of the century.

The construction of our current central building began “The Third Golden Age,” which we date from 1970 to 2002. For our surgery, this was “The Schullinger–Altman Era”. We all know what a joy it has been to work with John and Peter, giants in the field, but gracious, courtly, well-rounded and congenial colleagues and friends. To this day we seek them out whether it be in their offices,

interview rooms, hideaways in Vermont or Central Park West, or foreign fields. Their sage advice and warm personalities are stimuli to our pediatricians to retain these strong bonds of friendship and mutual respect.

The completion of our new tower, in 2003, marks the beginning of “The Fourth Golden Age,” which we have no hesitation calling, again in the context of surgery, “The Stolar Era”. Here, we have one of the wittiest people in the world, whose asides and quips make it difficult to keep a straight face, yet all the while knowing that we have one of the keenest minds and surest hands in the country. Our gain is “Saturday Night Live’s” loss.

Someday there will be a “Fifth Golden Age”, and whom will it be named after? We as pediatricians know full well that whoever it is will follow in the tradition set so ably by Tom Santulli and reinforced so graciously by John, Peter, and Charlie. Tradition dies hard at Columbia; in fact, tradition does not die here at all. We have had a winning team for 2 centuries and have full confidence that the next 2 will be just as glorious. ■

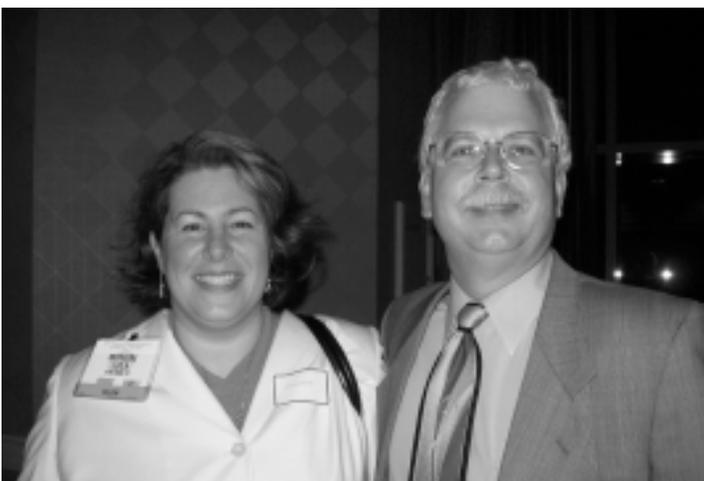
American College of Surgeons Clinical Congress – Chicago, 2006

Louella Parsons

Dr. Eric Rose hosted the John Jones Surgical Society (JJSS) reception in the Fairmont Hotel on Tuesday evening, October 10th. The American College of Surgeons was clearly in tune with this News Letter’s theme having elected Kathryn Anderson, its immediate past President, as the first pediatric surgeon to hold that office in its now 93-year history and, earlier in the week, inducted Professor Claire Nihoul Fekete, Chief of Surgery at L’ Hôpital des Enfants-Malades into honorary membership. Neither were in attendance, but, not surprisingly, three pediatric surgeons were in the room, Tom Tracy, from Providence, RI and Charlie Stolar, and Robert Cowles from MSCHONY.

In all, 34 faculty and JJSS members signed in as attending, along with many guests, including Dr. and Mrs. Gerald Fried from Montreal, and Dr. and Mrs. Bruce McFadyen. Gerald Fried is the originator of the McGill Inanimate System for Training and Evaluation of Laparoscopic skills that Dennis Fowler has working so effectively at New York Presbyterian, Columbia University, and Bruce McFadyen is Chairman of Surgery at

the Medical College of Georgia, and Ken Forde’s successor as Coordinating Editor-in-Chief of “Surgical Endoscopy and Other Interventional Techniques”. Anne and Peter Larkin’s children, Aliya and Matt, and Karen and Fred Horvath’s smartly dressed Kathryn, charmed those who were fortunate enough to meet them. Vivian Strong was accompanied by her father, Eberhard Mack, an endocrine and GI surgeon, graduate of Tübingen University and professor of surgery at the University of Wisconsin, in Madison. Joan and Jack Jacobson, who do so much for the College, and the Society for Vascular Surgery as well as our Department, were there, as they always are, and were at the center of many conversational groups. The venue, organized by Ms. Trisha Hargaden, was perfect and everyone enjoyed the drinks and fine food, although a few regulars searched in vain for those large, iced shrimp. In 2007 the ACS reception will be Tuesday evening, October 9, in resuscitated New Orleans, LA. ■



Leila Mureebe and James McKinsey, faculty members of the vascular division of the Department of Surgery



The Horvath family; Karen, Fred and Kathryn



From left, Charles Stolar , Aku Ude , faculty member and former resident and Michael Marvin, former resident



From left former residents, Jack Connolly, Theodora Budnik and Ken Forde



Former residents from left; George Todd, Kenneth A. Forde, Anthony Moulton, and Eric Rose, Chairman Department of Surgery



Steve Libutti and Ellen Hagopian both former residents



The Larkin family: Anne holding Matthew and Peter holding Aliya

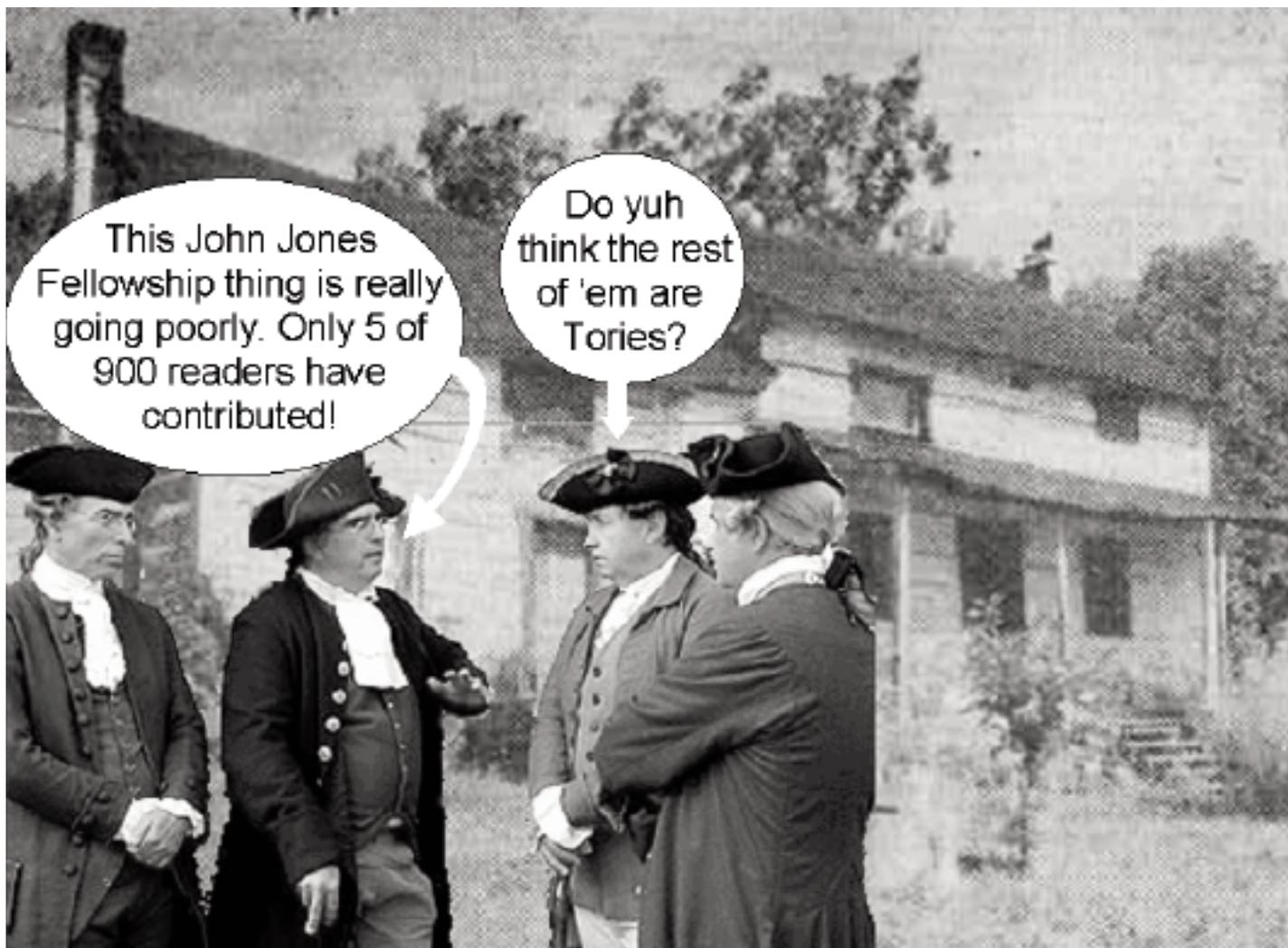


From left, Cindi Chandler, Jim Chandler and Ginny Connolly

**SAVE
THE
DATE**

Join us in celebrating the 10th anniversary
of the John Jones Surgical Society
Friday May, 18th, 2007
at Columbia University Medical Center

For more information & reservations contact Trisha at 212.305.2735 or Email: tjh2104@columbia.edu



Our Society's name implies a luminous legacy, and the description of the John Jones Research Fellowship in the Summer News Letter presumed that we wanted to enhance our Society's contemporary importance. To date the JJSS is a consumer of the Department's largess. Those, who choose to participate, can enjoy breakfast, lunch, and a fine evening overlooking Manhattan with their old colleagues on a nice day in May and see them again over cocktails and generally spectacular hors d'oeuvres at the American College of Surgeons, in October. In essence, the Summer Issue placed a question before the membership, asking for a financial endorsement of a higher purpose for the Society. Perhaps, we have already voted with our wallets: I prefer to think that an overwhelming majority has yet to vote. The Summer issue of the newsletter is available at www.columbiasurgery.org/alumni/index.html. Having made all these keystrokes and clicks it would be a shame not to follow through with a donation. JGC ■

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