University Senate

Proposed: November 18, 2016

Adopted: November 18, 2016
All 68 senators present voted in favor

RESOLUTION TO ESTABLISH A DEPARTMENT OF EMERGENCY MEDICINE

WHEREAS, emergency medicine is a discipline within the practice of medicine that provides unscheduled care for acute and subacute conditions, from sprained ankles to gunshot wounds; and

WHEREAS, emergency medicine has been recognized as a separate discipline, with its own areas of research, clinical domain**s,** and educational track**s**, including its own residency program and board, for more than two decades; and

WHEREAS, a department of emergency medicine will improve Columbia University Medical Center's competitive position both locally and nationally, enabling access to research funding and recruitment of the highest-quality faculty and residents; and

WHEREAS, a department of emergency medicine will allow faculty in that discipline to evaluate their own peers for promotion; and

WHEREAS, emergency medicine is among the top choices of specialties for today's medical students; and

WHEREAS, the chairs of the Departments of Medicine, Surgery, Pediatrics, Psychiatry, Obstetrics and Gynecology, and Anesthesiology at CUMC, and a majority of the physicians from these departments who currently staff the emergency department support the establishment of a department of emergency medicine;

THEREFORE BE IT RESOLVED that Columbia University establish a Department of Emergency Medicine; and

BE IT FURTHER RESOLVED that this resolution be forwarded to the Trustees for appropriate action.

Proponent:

Education Committee

1. Emergency Medicine as a Separate Discipline

Emergency Medicine emerged as a specialty from a background in the 1960s in which hospital emergency rooms were staffed by residents and hospital staff physicians in various specialties who rotated on-call duty, and ambulances were often staffed by morticians, who had vehicles that could serve as ambulances. Gradually, in the 1960s, committed groups of physicians took over the staffing of emergency rooms. In 1968 the American College of Emergency Physicians was formed and began to hold annual meetings. In 1972 the American Medical Association recognized Emergency Medicine as a specialty. In 1973 the Emergency Medical Services Systems Act was passed to fund regional and local Emergency Medical Services. Residency training in emergency medicine began in the early 1970s at several hospitals. In 1976 the American Board of Emergency Medicine was established as a "conjoined" board, and in 1989 the American Board of Emergency Medicine attained "primary" status, meaning that it was fully independent and not under the boards of other specialties. In the 1970s and 1980s, physicians without residency training in Emergency Medicine could qualify for the Emergency Medicine specialty board by accumulating a required number of practice months in emergency rooms ("grandfather clause"), but this track was ended in 1988. Textbooks of emergency medicine began to appear in the late 1970s, with Principles and Practice of Emergency Medicine (George R. Schwartz, MD), in 1978. There are now approximately 35,000-40,000 emergency medicine physicians in the U.S., largely graduates of the 199 residency training programs in Emergency Medicine.

Columbia University and NYPH have had a large emergency service for many years but we have been relatively late to adapt structural innovations in this field. The residency program at our institution began in 2003. Administratively, the emergency service has been configured as a Center for Emergency Medicine, with faculty appointments being made in the Departments of Medicine, Pediatrics, and Psychiatry, and with separate administrative units for the Pediatric Emergency Room reporting to the Department of Pediatrics and for the Psychiatrics Emergency Room reporting the Department of Psychiatry.

A number of peer and New York City institutions have recognized the academic need for a Department of Emergency Medicine (table 1). Departmental status has been an important advantage for these institutions in competing for the best faculty, residents, and fellows.

Table 1. ED Medicine at Peer Institutions	
Harvard	Academic department
Johns Hopkins	Academic department
Michigan	Academic department
Penn	Academic department
UCSF	Academic department
Yale	Academic department
NYC Area Institutions	
Cornell	No academic department
Montefiore/Einstein	Academic department
Mount Sinai	Academic department
North Shore-LIJ	Academic department
SUNY campuses • Downstate • Stony Brook • Upstate	Academic departments

Research in emergency medicine developed following the emergence of clinical and educational programs specific to the field. The journal Academic Emergency Medicine began publication in 1994. Areas of interest in emergency medicine research have included development and validation of decision rules for common presenting complaints, such as chest pain or acute ankle injury; evaluation of new diagnostic tests in the ED setting, such as the high sensitivity troponin assay; effectiveness of simulation in skill acquisition; management of asthma, pain, and other clinical conditions in the emergency setting; and use of the emergency setting to screen for asymptomatic or subclinical conditions such as HIV infection or alcohol abuse.

2. Emergency Medicine at Columbia and CUMC

Administrative Structure. The Emergency Medicine service at CUMC/NYPH is administratively structured in three components. The Adult Emergency Service is responsible for adult emergency services at Milstein and the Allen Hospital and for the UrgiCare Center. Its director reports to the Chair of Medicine. The Pediatric Emergency Service is responsible for pediatric emergency services at Children's Hospital of New York (CHONY). Its director reports to the Chair of Pediatrics. The Adult Psychiatric unit and the Pediatric Psychiatric unit (located in the pediatric emergency room in CHONY) are responsible for adult and pediatric psychiatric emergencies, respectively. The directors of these units report to the Chair of the Department of Psychiatry.

As is the case for all clinical departments, administrative space and support are provided jointly by the College of Physicians & Surgeons and NewYork-Presbyterian Hospital.

Clinical Activity. The clinical volumes in the several components of the ED are shown in Table 2.

Table 2. ED Visits FY15	
Milstein	90,000
Allen	50,000
UrgiCare	12,000
Pediatrics	53,000
Adult Psychiatry	5,000
Pediatric Psychiatry	1,000
TOTAL	**211,000**

Faculty. The numbers of faculty in the ED are shown in Table 3.

Table 3. ED Faculty FY15	
Adult ED (Milstein, Allen, UrgiCare)	54 FT, 11 PT
Pediatrics	31 FT (11 EM trained; 7 general pediatricians)
Adult Psychiatry	6 FTE plus moonlighters
Pediatric Psychiatry	1.8 FTE plus moonlighters

Residency Programs. The adult ED residency is a four-year program, currently combined with the Cornell. There are four residents per year accepted into the program. The Pediatrics and Psychiatry emergency services do not have residency programs. However, the Pediatrics ED has a three-year pediatric ED fellowship program, with two fellows per year accepted into the program. The Psychiatry ED does not have a fellowship program but residents in Psychiatry have scheduled rotations in the Psychiatry ED, where they learn this aspect of psychiatry.

About 20 P&S students do sub-internships in the ED each year.

Over the last five years, 46 P&S students entered ED residencies, on average about 9 per year. Of these, 17 matched in the NYC area (table 4).

Table 4. P&S Students Matching in ED Medicine in the NYC Area in the last 5 Years: Institutions to which these Students Matched	
NYU	8
Mt. Sinai	5
Einstein	3
Columbia	1

Departmental status is an important step in improving the attractiveness of the residency program relative to other NYC institutions and nationally.

Community Service. Community service is an important aspect of the Emergency Medicine mission. Emergency rooms by their nature provide services primarily to the surrounding physical area. Thus, while patients come to the Emergency Room from more distant sources, the Emergency service at CUMC and NYPH-CUMC predominantly serves the communities of northern Manhattan, Washington Heights, and northern Harlem.

Research. Research is conducted in both the adult and pediatric emergency services. The specific research themes will be defined by the new Department Chair together with the faculty. Examples of current research are as follows.

Adult Emergency Service. An important line of research relates to stress symptoms and post-traumatic stress disorder in patients in the emergency room. Donald Edmundson, PhD, a faculty member and Assistant Professor in the Department of Medicine with training in psychology, holds two grants from NIH to study this issue: R01HL128497 (Testing the biopsychosocial mechanisms of post-hospital syndrome of early re-hospitalization in acute coronary syndrome patients), and R01DA032295 (Impact of social-interpersonal factors in the ER on PTSD and cardiac outcomes). Dr. Joseph Underwood, Director of the Center for Emergency Medicine, is the key collaborating investigator.

Pediatric Emergency Service. Dr. Peter Dyan (Associate Professor of Pediatrics and faculty member in Pediatric Emergency Medicine) is the principal investigator of a multi-center grant from the Health Resources and Services Administration (HRSA/EMSC U03-MC00007 (Network Development: Pediatric Emergency Care Applied Research Network) and is a co-investigator on a grant from the Patient-Centered Outcomes Research Institute (PCORI) (Shared Decision Making in Parents of Children with Head Trauma: CT Choice). Other faculty members in Pediatric Emergency Medicine are collaborating investigators on grants to study fluid therapy in pediatric diabetes ketoacidosis; evaluation of a computerized asthma kiosk as a way of providing information to patients; and a trial of three treatment options for second line treatment of pediatric epilepsy.

Physical and Technical Infrastructure.

Adult Emergency Services. The **adult emergency service at Milstein Hospital** currently occupies 35,000 square feet of space on the first floor of the Vanderbilt Clinic at NYP/Columbia University Medical Center, located at 168th Street and Broadway in Washington Heights. The facility currently has 65 treatment rooms, including 35 private rooms, a separate rapid medical evaluation area, and a designated trauma bay. On-site imaging and laboratory capabilities include plain film radiography, computed tomography, and sonography as a well as comprehensive point-of-care and STAT lab services.

Additional resources include a SAFE program, patient navigator program, comprehensive care coordination program, and social work services.

Renovation of the adult ED is currently ongoing with an estimated completion date of December 31, 2017. Two new acute treatment bays will open with the first scheduled bay opening in September 2016. Upon completion, the size of the department will nearly double, from 25,000 square feet to 45,000 square feet and the number of treatment bays will increase from 55 to 88. These new bays will have a number of designated critical care rooms equipped with state-of-the-art technology and infrastructure for the provision of care to the critically ill.

The **adult emergency service at the Allen Hospital** provides acute care to both adult and pediatric patients and currently occupies 11,000 square feet of space on the first floor of the Allen Hospital located at 5141 Broadway in Northern Manhattan. The facility currently has 25 treatment rooms, including asthma treatment bays and a designated trauma bay. On-site imaging and laboratory capabilities include plain film radiography, computed tomography, and sonography as a well as comprehensive STAT lab services. Additional resources include a SAFE program, patient navigator program, and social work services.

Pediatric Emergency Service. The Pediatric Emergency Service occupies 25,000 square feet of recently renovated space on the first floor of the Morgan Stanley Children's Hospital at CUMC, located at 165th Street and Broadway in Washington Heights. The facility has 35 treatment rooms, including 26 private rooms, separate fast-track area, nine-bay asthma treatment area, two trauma bays (accommodating 2 patients per bay). The Pediatric Emergency Room is a Level 1 Pediatric Trauma Center. On-site imaging and laboratory capabilities include plain film and CT scanning and a stat (immediate turn-around) laboratory. The facility also has a pharmacy and a bereavement room. Surge capacity is created through double occupancy in patient rooms and additional "bays" in hallways and corridors. Pediatric ED specific resources include Child Life Specialists, Patient Navigators, Pediatric Social Work, Pediatric Patient Liaisons/Interpreters, and Pediatric ED Patient Transporters.

Both the adult and pediatric emergency rooms contain separate areas for psychiatric emergencies.

3. Organization of the Proposed Department of Emergency Medicine

Leadership. It is anticipated that the Department of Emergency Medicine will be structured in a fashion similar to other clinical departments at CUMC. The Department Chair will report to the Dean of the College of Physicians & Surgeons and, as Director of Emergency Services for NYPH, to the NYPH Chief Medical Officer and Senior Vice President.

The following administrative functions, among others, will need to be addressed (not necessarily by a person assigned full time to the role):

- Department Chair
- Residency and education director
- Clinical site directors: Milstein, Allen, CHONY/Pediatric ED, Psychiatry ED
- Quality officer
- Research director
- Departmental administrator

Faculty. The existing faculty in the several clinical components of the ED was described above. Further growth of the faculty will depend on ED service utilization. Nationally, ED use has grown substantially, and it may continue to grow. However, because of the higher cost of ED visits relative to office visits to

physicians and other providers, there have been national and state-level policy and reimbursement initiatives to reduce ED utilization, especially among patients with chronic conditions and primary care providers.[13] These countervailing trends may blunt growth in ED visits.

Recruitment. It is anticipated that following approval of the creation of a Department of Emergency Medicine a national search for a Chair will be initiated. Reorganization of the Department and further recruitment would be under the leadership of the new Chair.

Relationships with other departments. There are a number of important inter-departmental relationships.

Medicine. Adult emergency medicine faculty members presently hold appointments and receive promotions in the Department of Medicine. With formation of a Department of Emergency Medicine, this academic function will move to the new department. The current relationship is a legacy of the lack of specialized training and credentialing for ED physicians that characterized U.S. medicine 20 to 30 years ago, a time when internists with appointments in departments of medicine staffed adult EDs.

Pediatrics. Children coming to the emergency room are cared for in separate settings (pediatric ED at CHONY). The Pediatric ED is staffed by a combination of pediatric emergency medicine physicians (currently 24) and general pediatricians (currently 7), a staffing pattern that represents a transition from ED staffing by generalist pediatricians to staffing by emergency medicine trained pediatricians. The training pathway for emergency medicine pediatricians presently involves training first in pediatrics, followed by fellowship training in pediatric emergency medicine. Pediatric ED faculty members presently have faculty appointments in the Department of Pediatrics. Thus, with the formation of a Department of Emergency Medicine, which will include the Pediatric ED components, a complex relationship with the Department of Pediatrics will exist, such that faculty appointments will be primarily in the Department of Emergency Medicine and secondarily in the Department of Pediatrics, especially for those faculty members without board eligibility in Pediatric Emergency Medicine. The Pediatric ED has its own medical director; this person will need to report to the Chair of the Department of Emergency Medicine but be accountable as well to the Chair of the Department of Pediatrics. A close and collaborative working relationship between these two departments presently exists and will need to continue.

Psychiatry. Patients with psychiatric emergencies are cared for in separate settings within both the adult and pediatric emergency rooms. This care is provided by physicians who have been trained in psychiatry and who have faculty appointments in the Department of Psychiatry. These physicians have corresponding appointments in NYPH where their scope of practice relates to psychiatry. There is a separate Psychiatric ED facility within the Pediatric ED, and children with psychiatric emergencies are taken care of by child psychiatrists. Thus, with the formation of a Department of Emergency Medicine, which will include the Psychiatry ED components, a complex relationship with the Department of Psychiatry will exist such that the faculty appointments will need to be primarily in Psychiatry and secondarily in Emergency Medicine; the clinical leadership of the Psychiatric ED will be provided by a psychiatrist; the interaction between the Psychiatric ED on the one hand and the Adult and Pediatric EDs on the other will need to be jointly managed and closely coordinated (many patients are evaluated in both settings); and the budget for the Psychiatric ED will need to be separately specified and jointly administered by the two departments even while falling under the overall budget of the Department of Emergency Medicine. The Department of Psychiatry and the Emergency Medicine service collaborate closely now and this will continue with the formation of the new Department.

Radiology. Radiology has an active presence in the ED because of on-site imaging capabilities including CT scanning and on-site radiologists reading studies. The ability to obtain high quality imaging studies and readings in a timely fashion is critical to the functioning of the ED. This close collaboration will continue with the formation of a Department of Emergency Medicine.

Surgery, Neurology, Obstetrics-Gynecology, Ophthalmology, Orthopedic Surgery, Otolaryngology, and Urology. These departments provide prompt consultation to patients in the Emergency Department with specialized problems. Patients with problems that are primarily in one of these areas may be admitted to the specialty service or treated with a discharge plan involving follow up to the specialty outpatient service.

4. Rationale for a Department of Emergency Medicine at Columbia

The rationale for a Department of Emergency Medicine is based on several key considerations. First, Emergency Medicine is widely recognized as a separate discipline, with its own areas of research, clinical domain, and educational track including its own residency program and board. Secondly, faculty in a Department Emergency Medicine will be evaluated for promotion by peers in their own specialty. Third, departmental status will enhance the research program by enabling recruitment and investment in research areas of special focus for Emergency Medicine nationally. In these ways, creating a Department of Emergency Medicine will improve Columbia University Medical Center's competitive position both nationally and locally and thereby enable recruitment and retention of the highest quality faculty and residents, improve the educational experience of our medical students, and increase the research presence of emergency medicine faculty. In this way, a Department of Emergency Medicine will contribute to Columbia University and the College of Physicians & Surgeons' eminence, leadership, and reputation.

These points were emphasized in the supporting letters received from the six outside department chairs who were consulted (see section 7, below).

Research.

Dr. Jill Baren, Chair, Department of Emergency Medicine, Perelman School of Medicine, University of Pennsylvania, wrote, "….Departmental status at Penn had key benefits: the ability to recruit and retain the best faculty, the ability to offer appointments and promotion trajectories based on appropriate departmental criteria, the ability to improve educational programs and attract a highly competitive pool of residency applicants, the ability to expand research and build extramurally funded research programs….the Departmental research program has three priority areas: Center for Resuscitation Sciences (CRS), Center for Health Care Policy Research (CEPCR)…., and acute care clinical trials….The Department leads {Dr. Baren, PI] the NINDS funded greater Philadelphia-Southern New Jersey Neurological Emergencies Treatment Trials (GPSNJ-NETT) Network…."

Dr. Gail D'Onofrio, Chair, Department of Emergency Medicine, Yale School of Medicine, wrote "….the Yael DEM's [Department of Emergency Medicine's] research portfolio has expanded since department status was awarded, currently spanning a spectrum of areas from Public Health, Trauma and Clinical Trials, to Screening, Brief Intervention, Referral to Treatment (SBIRT). Specific areas of research our faculty has focused on include: Simulation, Violence and Unintentional Injury, Racial and Ethnic Disparities in Traffic-Related Trauma, Mental Health Causes and Consequences of Trauma, Ultrasound & Echocardiography [in the Emergency Department], Unexplained Chest Pain and Gender, and improving medical outcomes for patients with, and at risk for drug abuse, addiction, and HIV. Since 2009 the department has increased its overall active federal grant funding from $4 million to approximately $42

million….Our faculty members are active at a national level in leadership roles in Organizations such as the American College of Emergency Physicians (ACEP), the Society for Academic Emergency Medicine (SAEM), the National Association of EMS Physicians (NAEMSP), and the American Public Health Association."

Dr. Gabor D. Kelen, Chair, Department of Emergency Medicine, Johns Hopkins School of Medicine, wrote, "There are few examples of strong academic entities of EM [Emergency Medicine], absent an autonomous department. Lacking input in major deliberative bodies, being generally of low priority for resources in their parent departments and medical schools, and lack of local level decision-making, severely hinders any ability develop a serious academic entity.....[C]onsider Michigan – world leaders in stroke research, Pittsburgh – world leaders in sepsis research, Harvard – world leader in Complex Humanitarian Relief, Yale – injury Prevention, Penn – Resuscitation Science, UC Davis – PECARN [Pediatric Emergency Care Applied Research Network].....On the contrary, I cannot think of a single "division" emergency medicine that is known or prominent in anything in particular nationally."

Dr. Robert Neumar, Professor and Chair, Emergency Medicine, University of Michigan Health System, wrote, "At the University of Michigan, departmental status has catalyzed academic success [in] Emergency Medicine at multiple levels within the university and nationally…..In 2015. The Department of Emergency Medicine received $4.5M in NIH funding…and $20M total extramural funding. In FY16, Emergency Medicine faculty authored 156 peer-reviewed publications….Two EM faculty have been elected to the National Academy of Medicine."

Dr. Peter Sokolove, Professor and Chair of Emergency Medicine, and Dr. Michael L. Callaham, Professor Emeritus and Founding Chair, Department of Emergency Medicine, University of California at San Francisco, together wrote, "The experience at UCSF is illustrative [of the effect of departmental status on research]. After department establishment in 2008, scientific publications increased 183% and external funding increased roughly threefold…..About one-third of the faculty now receive external funding at some level…..Several of the faculty have major external funding, and we recently established our first research division (health policy), our first ladder rank faculty position, and our first PhD research faculty member position."

Dr. Ron M. Walls, Nevsky Family Professor of Emergency Medicine, Harvard Medical School and Executive Vice President and Chief Operating Officer, Brigham and Women's Hospital [and first chair of the Executive Committee of the Harvard Department of Emergency Medicine], wrote, "Emergency Medicine is a unique specialty. Its body of expertise does not reside within other specialties and no academic emergency physician is comfortable with an appointment in another specialty discipline. Lack of departmental status has a negative influence on recruitment of faculty, development and retention of faculty, development of research programs and success in obtaining extramural research funding….."

Education.

Dr. Baren wrote, "EM is one of the most popular clerkships and a top choice for residency among PSOM [Perelman School of Medicine] graduates…..Faculty lead and teach multiple other PSOM courses which been very highly rated: Frontiers in Resuscitation, Professionalism and Humanism (Doctoring), Wilderness and Disaster Medicine, First Aid, Health and Society, among others."

Dr. D'Onofrio wrote, "The DEM faculty at the Yale School of Medicine play a prominent role in medical education, responsible for the instruction of medical students, interns, residents, and fellows in the Field

of Emergency Medicine….The ED is the only setting the student encounters the undifferentiated patient, has the repetitive opportunity to hone their history and physical exam skills, and perform the majority of procedures during their medical school training…..EM faculty are integral to many aspects of medical education, offering seminars in interpersonal violence, substance use disorders, sexual assault and end of life issues."

Dr. Kelen wrote, "It should be noted that our required clerkship [for medical students] is the highest rated by medical students for 20 years; occasionally tying with another program, but always on top. Our faculty have been elected as top teachers by the medical students for many years. We also offer several electives and intersessions such as disaster medicine and austere medicine – both top rated in their category."

Dr. Neumar wrote, "In 2016, 24 U of M[ichigan] medical students (15% of class) will be applying for EM residencies….Two Emergency Medicine faculty have been named Assistant Deans for Education."

Dr. Peter Sokolove, Professor and Chair of Emergency Medicine, and Dr. Michael L. Callaham, Professor Emeritus and Founding Chair, Department of Emergency Medicine, University of California at San Francisco, together wrote, "Academic departments of EM are typically very strong in education, and their courses are often among the most popular in schools of medicine……At UCSF, our EM department is one of the two that has the highest proportion of its faculty (12%) elected to the dean's prestigious Academy of Medical Educators."

Dr. Wall wrote, "Lack of departmental status has a negative influence on recruitment of faculty, development and retention of faculty, development of research programs and success in obtaining extramural research funding, establishment and success of residency training programs and recruitment of medical students. Emergency medicine is now consistently among the top five chosen specialties for graduating medical students and, for many medical schools, in the top three."