



**Langone Medical Center**

NEW YORK UNIVERSITY SCHOOL OF MEDICINE

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## **Phase II Report of the Academic Excellence Commission**

- *Academic Performance Standards and Metrics for Clinical Research*
- *Incentives and Rewards for Surpassing Productivity Expectations*
  - *Base Salary*

**December 16, 2008**

## **Academic Excellence Commission Members**

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## List of Terms and Abbreviations

**Full-time faculty:** Full-time faculty at NYU School of Medicine are defined as faculty who are employed for 12 months of the calendar year and have the expected percent effort assigned appropriately to their performance level, with no more than 20% effort (1 day per week) devoted to other activities. (See Artman Report II: Appointment, Promotion and Tenure)

**FGP – Faculty group practice:** A faculty group practice is composed of physicians who are full-time faculty of a university medical school and agree to provide medical care to patients as an organization that shares administration, billing, and disbursement of revenues in a plan approved, often managed by and in financial support of the medical school.

**FPO – Faculty practice organization:** A faculty practice organization is composed of physicians who may or may not be full-time faculty members of a medical school, and provide medical care to patients in association with the medical school. The FPO members share administration, billing, disbursement of revenues, but they are not under the management of the medical school and do not share revenue with the medical school. FPO physicians contribute to the culture of the institution, and they typically do not collect salary for patient care, although they may be paid for teaching and other services, and they typically provide less financial support to the medical school than FGP physicians. They have no obligation to participate in the academic mission of the medical school or to do research, although some do.

**Private clinicians:** This group is not compensated for medical practice and care work, and can be members of FPOs or not.

**ICE faculty – Investigator Clinician Educator faculty:** (See Artman Report II: Appointment, Promotion and Tenure). A full-time *tenure track* for faculty in clinical departments whose primary career combines independent research with clinical activities and who devote some time to education and service.

**CIE faculty – Clinician Investigator Educator faculty:** (See Artman Report II: Appointment, Promotion and Tenure). A full-time *non-tenure track* for faculty in clinical departments whose primary career is in the provision of clinical care and who devote a substantial portion of their efforts to teaching, research and service.

**Investigator Educator faculty:** (See Artman Report II: Appointment, Promotion and Tenure). A full-time *tenure track* for those faculty members in any department whose primary career is in independent, investigator-initiated research and who devote some time to education and service.

**Bellevue Hospital staff physicians:** This group is generally tenured (ICE or Investigator Educator faculty) and they collect salary. There is a considerable range in activities performed, with little patient care for a number of these physicians.

**AAMC –Association of American Medical Colleges:** The AAMC is an organization that helps establish policy, leadership and standards for American medical schools and institutions.

## Executive Summary

In the fall of 2007, Dean Grossman convened two Strategic Initiatives Commissions charged to develop a plan to guide the School of Medicine for the next decade, with the overarching goal of once again achieving a position as one of the top 20 medical schools in the U.S.. One of these, the Academic Excellence Commission (AEC), co-chaired by Dr. Robert J. Schneider and Dr. Silvia C. Formenti, consisted of a group of highly respected faculty (clinicians and basic scientists) who are widely representative of the many different programs and interests of the School of Medicine. The AEC has met regularly for a period of almost one year with the goal of developing a specific set of recommendations that would enable and reward excellence in an academically viable and financially sustainable manner.

The charge to the AEC was to:

- Develop and implement productivity criteria for basic and clinical research faculty
- Develop a program for evaluation, implementation and accountability of performance metrics
- Develop a definition of full-time, part-time and private practice service
- Develop expectations for the level of external funding
- Develop criteria and guidelines for allocation of research space
- Develop criteria and guidelines for faculty and departmental incentives and rewards for surpassing expectations
- Develop recommendations for the replacement of faculty that cannot meet performance criteria after a reasonable transition period (glide path)

The methods, process, analysis and discussion of the AEC can be found later in this document, as well as its specific recommendations. Outlined here is a summary of the recommendations and conclusions of the AEC for the second phase of their study.

***History and structure of NYU School of Medicine.*** The history of outstanding medical and clinical achievement is interwoven with the history of New York University School of Medicine. Since its inception as the New York University College of Medicine in 1841, and its merger with Bellevue Medical College in 1898 to form the present day NYU School of Medicine (NYU SoM), NYU SoM has been a leader throughout the ages in medicine and clinical research. NYU SoM led the establishment of the New York City Public Health Department in 1866, the first Professor of Orthopaedic Surgery in North America in 1868, the first pathology and bacteriology teaching facility in 1884, the first department of forensic medicine in 1932, and the first department for physical and rehabilitative medicine in 1941. NYU SoM has been the home of a great many outstanding clinicians and clinical investigators, starting with Valentine Mott, one of the foremost surgeons of the mid-1800's, William Tillett who discovered streptokinase for treatment of heart attacks in 1933, Julius Axelrod who received a Nobel Prize for his pioneering research on malaria, Drs. Dickinson Richards and André Cournand who developed cardiac catheterization in 1941 (and received a Nobel prize for their work in medicine and physiology in 1952), Albert Sabin who developed the first vaccine against polio virus, Saul Krugman who developed the first vaccine against hepatitis B virus in 1980, and Jan Vilcek who developed the first biological for the treatment of rheumatoid arthritis and Crohn's disease, among others.

NYU SoM and Medical Center is now comprised of the School of Medicine, Tisch Hospital, NYU Hospital for Joint Diseases and the NYU Clinical Cancer Center, and has affiliation contracts and faculty practicing at the Manhattan Veterans Administration, Bellevue Hospital Center, and Woodhull Hospital.

***Evolving health care industry threatens academic research in clinical departments.*** The major changes in the health care industry, underway for the past decade, are challenging the ability of academic medical centers to conduct research. Due largely to external pressures, the expectation of clinical faculty by their institutions has been increasingly to derive a greater and greater share of their income from patient revenue. Presently, the majority of clinical faculty financial compensation is derived from clinical practice. Nonclinical time for research has therefore become a luxury, and in many clinical departments it has been lost entirely. Research grants, the main mechanism for protecting the salaried time of a clinical faculty member for research, have become increasingly difficult to obtain, particularly in the clinical arena, with success rates for funding at some institutes of the NIH under 15%. The main means by which clinical departments have protected the time of their faculty to conduct research have therefore disappeared simultaneously with strong pressures to increase clinical revenue due to continuing reductions in the health care reimbursement rates and ever increasing costs associated with practicing medicine. This has also significantly eroded the ability to retain young clinical investigators and fellows, as well as to recruit, train and maintain academic clinical faculty. When compensation is based mainly on a model of patient volume, and exists in an environment of competition for patients, as it is in the city of New York and at NYU SoM, the academic part of clinical medicine will suffer. Without incentives that recognize the value of academic clinical research and provide rewards for research, clinical excellence is hampered, inevitably eroding other attempts to restore NYU SoM to a position among the top medical schools in the country.

***Evolution of the academic roles of clinicians at NYU SoM.*** The history of NYU SoM is rich in the tradition of training outstanding clinicians, devoted to the profession of medicine, teaching and service to patients. Central to this tradition has been a unifying experience of education and service at Bellevue Hospital. However, over the years, NYU SoM has also developed a large number of private practice clinicians who have traditionally been central to the teaching program of the SoM, responsible for a significant volume of patients cared for at Tisch Hospital, and for the referral of patients to Tisch Hospital. Over the past decade, changes in attending physician responsibilities at Bellevue Hospital, the increase in hospitalists, and the shift of patient care from in-patient to ambulatory care, combined with the economic pressures on the practice of medicine, have reduced the role of many voluntary physicians in the teaching of medical students, residents and fellows. A challenge over the next period for NYU SoM will be to determine how to incentivize and resurrect the vital contribution of these physicians to the education and research activities of the medical center.

At the same time, over the past decade, there has been steady growth of a geographically coincident (i.e., within the same work place) full-time clinical faculty many of whom have joined the FGP. The purpose of FGP growth has been two-fold: *First*, there is an economic incentive for institutions nationally to establish robust and growing FGPs that contribute funds to both the Dean and Departmental Chairs that can be used to grow the academic missions of their

departments; *Second*, academic medical centers rely on geographic full-time clinical faculty to reliably lead both training programs and clinical research efforts, secure grants, write manuscripts and contribute to the national stature of the institution. In this era, with its emphasis on translational research, a full-time clinical faculty is essential for a medical school to sustain its academic research mission. A geographic full-time faculty necessary to fulfill all of the clinical requirements of academic programs is a considerable challenge for NYU SoM because the institution includes Tisch Hospital, NYU Hospital for Joint Diseases, Bellevue Hospital Center and the Veterans Administration.

***The FGP as the setting to establish clinical academic excellence.*** Initially developed as the foundation for growth in the clinical departments, the NYU FGP has rapidly grown. The FGP has assured a contribution as "tax" to the Dean (generally established as 5% of all patient care revenue) as well as the control of the clinical enterprise (demographics of population served, measures of flux, insurers, reimbursement, financial information, etc.). The FGP has provided the opportunity to recruit new Chairs on a common platform, working with Vice Dean Brotman and Vice President Rubin, to establish new medical practices. Over the past 10 years, this process has been extremely successful.

The NYU SoM FGP is now poised to lead the development of a greater academic model for clinical departments that simultaneously provides financial stability and growth. As described in the Phase I report for basic research faculty, the department Chairperson must play a critical role and be responsible for the transition of the FGP in their departments to one in which an academic research environment can also develop and thrive.

Since the FGP is a centralized organization reporting to the Dean of the medical school, and it aligns with the Dean's vision, it represents the best setting to implement incentives based on academic excellence. While respecting the diversity among different departments, it is at the FGP level that the Chair can plan financial incentives and recognition to motivate and reward academic achievements.

***Academic accountability of the clinical department: role of the Chairperson.*** Consistent with the conclusions of the Phase I AEC report for basic research, the Chair of the department is the ideal partner to establish a foundation for change, both within and outside the FGP. This change requires accountability of each department to the Dean, in terms of financial and academic performance. The AEC recommendations are consistent with their previous recommendations for Chairs in the basic science departments, whom the AEC suggested should be given the responsibility and accountability for development of plans for the academic productivity and extramural grant support of their faculty. Clinical Chairs, in parallel, also need to be given the responsibility and accountability for the academic productivity of their faculty, in addition to their responsibility as managers of clinical revenue.

The findings reported here call for addressing the inadequate clinical academic research performance at NYU SoM, and suggest that the clinical department Chairs should play the central role in reversing the current status.

Specifically, the AEC provides the following recommendations:

- A plan for academic development and its financial incentives should to be developed by each clinical department and section.
- This plan should be presented by the Chair and discussed with and approved by the Dean.
- The plan should anticipate a cultural transition within departments to evolve a combination of clinical care and research as a continuum, not as an alternative.
- The Vice Dean of Science should provide guidance and cohesion to the establishment of the clinical research infrastructure that is lacking at NYU SoM.
- Chairs need to actively participate in the clinical academic transformation required to achieve an efficient conduct of clinical trials, assure tissue banking and other endeavors that are cornerstones of academic clinical investigation.
- The Dean should consider appointing a distinguished group of internal and external advisors to help direct this transition.
- NYU SoM should make clinical and translational research possible, feasible, valuable and indispensable for faculty promotion.

This effort should start from the top, at the Dean, Chairs and section/division chiefs level. The accountability of clinical departments is particularly important in view of the fact that the achievement of tenure for faculty in most clinical departments is becoming increasingly more difficult.

***An incentive program to promote and reward academic excellence in basic research and clinical departments.*** It was recognized by the AEC that many institutions have developed incentive programs to promote and reward academic excellence. Incentive programs are an important part of changing and maintaining the culture of an institution to one that honors academic excellence as a primary goal. The AEC has developed a detailed set of suggestions for an incentive program for both basic and clinical faculty. These suggestions have in common the goal that additional compensation be made available to full-time tenured and tenure-eligible (tenure-track) faculty regardless of departmental affiliation based on several factors:

- Surpassing by some defined amount the required metric for investigator salary recovery.
- Obtaining grant support in some significant excess of typical indirect cost recovery for the institution (e.g., obtaining a very large grant at full indirect cost recovery regardless of surpassing required extramural salary benchmarks).
- Some combination of excess salary support and large indirect cost recovery.

***A base salary compensation program needs to be established to enact an incentive program for academic excellence.*** An important consideration for the AEC in the Phase II report was the development of a base salary compensation program, also known as a base salary for full-time faculty members. Incentive programs typically use base salary compensation in the development of rewards and incentives. The AEC entertained various compensation models and arrived at a rank-dependent set of recommendations for base salary compensation.



## ANALYSIS OF THE STATE OF ACADEMIC CLINICAL DEPARTMENTS AT NYU SoM

**A threat to academic research in clinical departments.** An alarming trend in loss of clinical academic research at NYU SoM is evident from the 2006 Price Waterhouse Cooper (PWC) analysis of the Research Effort Summary for Clinical Departments at NYU SoM, and the more recent analysis conducted by the AEC using somewhat different data. While absolute numerical values differ, the trend is the same. The PWC data separated the Department of Medicine from the other clinical departments in its analysis, because a number of its research faculty are located in basic science departments and are full-time researchers. Considering only full-time clinical faculty in the other clinical departments at NYU SoM, PWC found that on average, only 14% of their effort is spent on research, with only 9% supported by extramural (non-capital budget) funds. The Department of Medicine faculty are more involved in research efforts overall than other clinical departments. The PWC report found that about 21% of Department of Medicine faculty effort is research focused.

The AEC data was derived from the 2008 School-wide self-reporting Faculty Effort Data Survey, as of April 22, 2008. This survey includes 96% of the 1560 clinical faculty (full-time and part-time) including the Department of Medicine. *The data reported here by the AEC correspond only to compensated full-time (1.0 FTE) clinical faculty for 2007, representing 882 faculty.* All of these faculty have academic appointments. Full-time clinical faculty include members of the Departments of Anesthesiology, Cardiothoracic Surgery, Dermatology, Emergency Medicine, Medicine (all divisions), Neurology, Neurosurgery, Ob/Gyn, Ophthalmology, Orthopedic Surgery, Otolaryngology, Pediatrics, Psychiatry, Child & Adolescent Psychiatry, Radiology, Radiation Oncology, Rehab Medicine, Surgery, Plastic Surgery and Urology. With the caveat that these are self-reported (albeit Chair vetted) data, Figure 1 demonstrates the percentage of clinical effort compared to total effort, administrative effort and education effort. These data demonstrate that almost 50% of the clinical faculty spend 70-100% of their time in clinical and/or education efforts (largely in the course of patient care). Approximately 30% of the faculty report spending 40-60% of their time (50% average) on research.

Administration and education efforts are not equitably distributed among the clinical faculty. Per capita, the faculty who spend an average of 50% of their time in research carry 3

Figure 1 Full Time Faculty in Clinical Departments:  
Effort By Mission

% Effort	Total	0%	1-10%	11-20 %	21-30 %	31-40 %	41-50 %	51-60 %	61-70 %	71-80 %	81-90 %	91-100%
Clinical Effort	53.0%	0%	7.3%	17.2%	27.3%	38.4%	48.1%	58.7%	67.9%	77.8%	87.7%	97.6%
Education Effort	14.2%	18.2%	15.5%	17.8%	18.2%	23.1%	21.7%	18.0%	14.9%	12.9%	7.4%	1.7%
Research Effort	21.4%	63.7%	48.1%	39.1%	40.5%	16.6%	17.4%	11.6%	7.3%	4.5%	2.4%	0.3%
Admin Effort	11.4%	18.1%	29.1%	25.9%	14.1%	21.9%	12.8%	11.7%	9.9%	4.8%	2.5%	0.4%
Full time faculty n =	882	153	35	47	33	47	68	71	102	108	105	113

**Footnote:**

- 1) Source: 2008 Faculty Effort Data: Self reported faculty effort data as of 4/22/08
- 2) 96% of faculty reporting on of approximately 1560 surveyed faculty
- 3) Data based on clinical department full time faculty only (FTE= 1.0)
- 4) Clinical Departments include: Anesthesiology, Cardiothoracic Surgery, Dermatology, Emergency Medicine, Medicine, Neurology, Neurosurgery, Ob/Gyn, Ophthalmology, Orthopaedic Surgery, Otolaryngology, Pediatrics, Psychiatry, Child & Adol.Psychiatry, Radiology, Radiation Oncology, Rehab Medicine, Surgery, Plastic Surgery, Urology

times as much administrative load as those that average just 8.5% research activity (0.3-17% research activity range). The research faculty at 50% research effort similarly carry 3 times the load of education effort per capita than the low research effort group. Education obligations include formal lectures and case study presentations to medical students, as well as training residents and clinical fellows. In summary, a disproportionate share of the range of responsibilities in a clinical department that are required of an academic medical center are carried by the smaller number of clinical faculty that significantly participate in academic research (i.e., “triple threat” faculty). It is not clear however, how this effort is recognized or compensated.

The AEC examined the actual financial expenditures on research in the clinical departments as a measure of financial support, since much of this support is not grant-based. Almost half of the clinical research programs average only \$50,000 a year or less in expenditures, with almost two-thirds of the clinical research programs spending \$100,000 a year or less (Figure 2). Moreover, the small budget size of the majority of these grants suggests that they are mostly small foundation, private donation or industry-sponsored studies, instead of investigator-initiated, peer-reviewed grants. Although there are some clinical faculty with substantial research grants, and in fact they hold some of the largest grants in the institution, these data indicate that most clinical faculty who perform research have very little funding and most of that is not federal-based or peer reviewed. Since academic clinical research grants from foundations like American Cancer Society, Avon Breast Cancer Foundation, Komen For the Cure, or from federal agencies like the NIH, Department of Energy and Department of Defense can be considerably larger than basic research grants, and federal grants include full indirect cost recovery, the low level of clinical research funding is a substantial loss of research grant revenue to the institution.

Figure 2  
Clinical Department Faculty with Research Expenditures n= 411

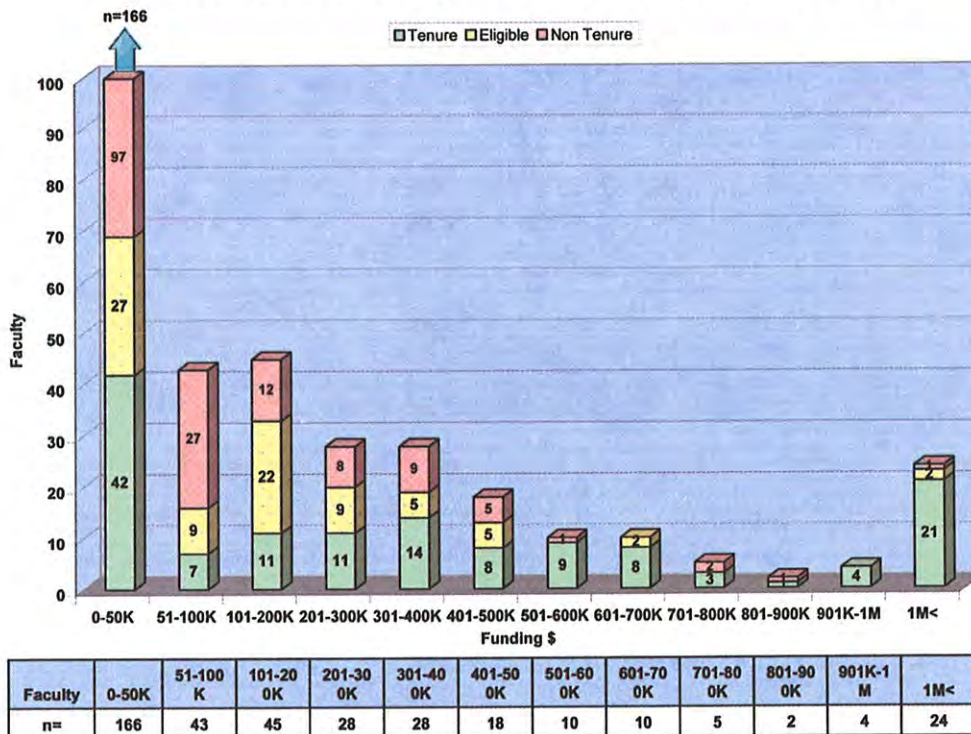
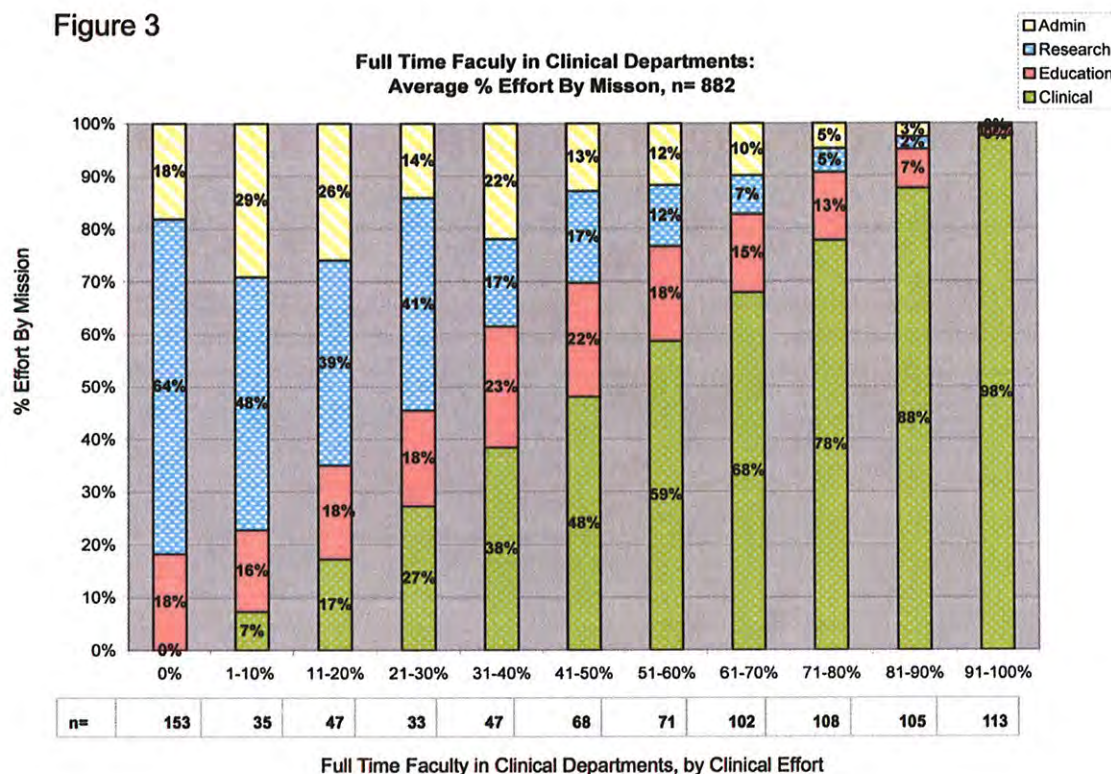


Figure 3 further compares the full-time clinical faculty effort data as raw numbers in order to more clearly display the allocation of effort. These data demonstrate the relationship of percent effort in one endeavor to the other endeavors. It is apparent that once a clinical faculty member crosses a threshold of 30% clinical effort, research effort never rises above 17%. The most plausible interpretation of this finding is that it is very difficult to conduct clinical and translational research if more than 30% of the faculty member's effort is devoted to clinical responsibilities. *Performing clinical academic research at NYU SoM is consequently difficult, in the absence of a significant investment in protected research time, core infrastructure, support services and support personnel.*

Figure 3



***The state of clinical academic research at NYU SoM as measured by publication citations by rank.*** The AEC requested a quantitative assessment of academic clinical productivity with the invaluable aid of Dr. Karen Brewer, Chair of NYU SoM library administration and a leader in medical information sciences. Dr. Brewer was asked to conduct two sets of publication analyses to gain information on the state of clinical academic research at NYU SoM: (1) Academic standing based on the ranking of publication citations; and (2) Academic standing based on comparison of NYU SoM citations to the top Medical Schools that we would like to emulate, using the NIH/U.S. News and World Report Rankings.

For these analyses, Dr. Brewer utilized: (1) ISI Essential Science Indicators (Comparator of Number of Papers and Citations by Rank for School of Medicines) (2) Number of Publications in PubMed from 1997-2007; (3) Comparators for Top Impact Factor Journals in Biomedicine; (4) Journals sorted by Impact Factor in Biology and Medicine 2007. Caveats to the analyses include that data are not available for certain benchmark comparisons, such as

publications by tenure and level for comparator institutions, and importantly, most other academic institutions do not award faculty titles to clinicians who are not full-time members of the faculty. In the latter case this serves to inflate the denominator number of faculty in certain departments at NYU SoM, resulting in a dilution of the productivity of full-time faculty. Nevertheless, national rankings are based on these same criteria, including the ranking of journals in which the faculty publish. The AEC therefore felt that despite these caveats, these data would provide insights and a fair assessment of our current state of overall clinical academic standing. That said, it is also imperative to point out that there are real pockets of outstanding academic clinical research at NYU SoM, resulting in publications in strong impact journals. Since the purpose of this analysis is an overview and not a department-by-department comparison, we therefore provide a summary of the clinical academic standing without individual departmental analyses.

The Clinical Medicine category covers journals encompassing a wide range of medical and biomedical topics: anesthesia, cardiovascular medicine, dentistry, dermatology, general and internal medicine, endocrinology, environmental medicine, gastroenterology, gynecology, hepatology, hematology, nephrology, nuclear medicine, obstetrics, oncology, ophthalmology, orthopedic surgery, otolaryngology, pediatrics, pharmacology, radiology, toxicology, respiratory medicine, rheumatology, surgery, and urology, representing more than 9,000 journals.

Table 1 compares NYU SoM to high quality medical schools and research institutions that we typically compare ourselves to, or would like to emulate (e.g., Columbia University, Cornell, Mt. Sinai, Sloan Kettering). Clinical academic rankings were based on two categories: total number of publications in clinical medicine (defined above), and the impact of those papers based on number of citations. The results are telling. All of the institutions chosen for comparison place well ahead of us, even some that we had thought were similar in ranking to NYU SoM (e.g., Mt. Sinai, Einstein College of Medicine, University of Rochester). While NYU SoM places in the top 51 of 2615 institutions worldwide based on total numbers of clinical papers published, it places at only 1176 of 2615 institutions when ranked according to the average number of times those papers were cited by others (a standard measure of their impact). The ready explanation of these data is that collectively, NYU SoM clinical faculty may publish a considerable number of papers, but overall they are of low impact and in low impact journals. As most academic information specialists would agree, rank by citation index is a more valuable assessment of standing than number of papers published, because it incorporates the impact of that published work.

**Table 1: ISI Comparative Ranking of NYU SoM**

Institution	Clinical Medicine					
	US News & World Report Rank.08	NIH Rank Total.07	Number Papers	Rank /2615	Citations Paper	Rank /2615
Baylor College of Medicine	13	15	10,262	23	17.73	904
Case Western Reserve	23	27	6,882	66	17.87	892
Cold Spring Harbor Lab	m	m	104	2159	114.16	45
Columbia University	11	14	12,150	14	18.80	824

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Cornell University	18	36	7,270	57	20.59	693
Duke University	6	5	13,069	13	19.58	771
Emory	20	18	9,143	32	19.13	798
Harvard University*	1	24	35,207	1	24.23	490
Johns Hopkins University	2	1	21,729	2	21.99	594
Mayo Clinic/Medical School	23	m	18,512	3	17.31	945
Mem Sloan Kettering Cancer Center	m	m	7,036	60	26.51	411
Cuny Mt. Sinai Sch Med*	23	20	7,283	57	18.25E	866E
<b>New York University School of Medicine</b>	<b>34</b>	<b>35</b>	<b>7,626</b>	<b>51</b>	<b>15.41</b>	<b>1176</b>
Northwestern University	20	28	9,087	34	16.63	1013
Ohio State	30	51	6,668	70	16.41	1040
Oregon Health Science University	35	22	5,813	90	18.32	859
Rockefeller University	m	m	1,063	566	50.70	126
Salk Inst Biol Studies	m	m	276	1415	44.70	160
Scripps Research Institute	m	m	910	349	33.36	267
Stanford University	8	12	11,611	16	23.33	529
University of Alabama-Birmingham	27	25	9,430	28	18.15	877
University of Calif Los Angeles	9	7	15,578	8	19.22	788
University of Calif San Diego	14	13	9,013	35	21.83	609
University Calif San Francisco	5	2	17,719	4	21.21	628
University of Chicago	16	19	6,621	72	19.20	792
University of Colorado-Denver	27	23	8,710	40	19.53	772
University of Iowa	31	31	7,887	45	16.50	1030
University Maryland	43	33	7,194	59	17.47	926
University of Michigan	11	11	15,095	10	18.48	844
University of North Carolina	19	17	11,158	18	17.81	899
University Pennsylvania	4	3	15,737	7	18.03	879
University Pittsburgh	14	9	14,861	11	17.86	893
University of Rochester	36	26	5,503	101	16.44	1034
University of Texas Southwestern	22	21	7,812	48	20.82	679
University of Virginia	23	29	5,999	80	17.21	953
University Washington	6	8	16,576	6	20.54	699
University of Wisconsin	27	34	7,708	49	17.42	933
Vanderbilt University	16	10	7,649	50	21.88	604
Washington University	3	4	10,410	21	19.00	810
Yale University	9	6	9,651	27	19.68	789
Yeshiva University/Albert Einstein	36	32	4,832	113	19.83	756

**NYU SoM ranked by quintile**

**1**

**3**

\* Harvard listings vary, according to site, but in general do not include affiliated hospitals  
 Mt. Sinai rankings under medicine are estimated due to the significant number of listings under 2 names  
 NIH Rankings based on USC spreadsheet for 2007

MGH, etc.

In summary, NYU SoM ranks almost half (3<sup>rd</sup> of 5 quintiles) in comparison to 2615 institutions worldwide in terms of the impact of overall clinical publications. The negative effect of this low standing on the global reputation of our school and its clinical base are obvious particularly since they are in stark contrast to the high quality of publications and international standing of NYU basic research scientists. The AEC membership agreed that a concordant profile of excellence from both the basic and clinical sciences is crucial to improve our medical school rank.

***The academic clinical challenge.*** A great academic medical center, particularly with the traditions that are the foundation of NYU SoM, must cultivate an environment that embraces faculty who contribute to each of its three core missions: patient care, research and education. NYU SoM consists of a heterogeneous group of clinical faculty, each making important contributions to the institution. To achieve academic excellence, we must expect that each faculty member, whether they are voluntary or full-time clinical faculty, FGP or non-FGP clinical faculty, contribute meaningfully to these missions. As set out later in this document, the AEC recommends that a set of guidelines be developed by each clinical department and/or division that will outline the expectations of all clinical faculty under the Chairmen's oversight, and for which all Chairmen and faculty will be accountable. In the following sections of this report, the committee addresses this challenge and presents recommendations for enhancing, recognizing and rewarding the contributions of clinical faculty to academic excellence at NYU SoM.

***Medical schools have found it necessary to develop models to protect and foster academic clinical research and metrics for productivity and quality of care.*** Faculty members at leading academic medical centers typically participate in FGPs as they do at NYU SoM. FGP members traditionally trade the higher salaries of private practice for the more specific focus, satisfaction and financial security of a department-based practice, with the opportunity for academic investigation. On average, FGP physicians earn 25-50% less than private practitioners. In addition, FGP and FPO physicians tend to see more complex cases than voluntary physicians in private practice, requiring more time per patient, further reducing their clinical revenue. At NYU SoM, about a third, or approximately 650 of the 1560 clinical faculty members are part of an FGP. This is a considerable achievement from 10 years ago when there were few clinical faculty in an FGP at this institution. Currently, almost all new clinical faculty are recruited to NYU SoM as part of an FGP.

Academic clinical productivity metrics, benchmarking and incentive plans to promote and reward academic achievement in clinical departments have become quite common in academic Medical Schools and Medical Centers during the past ten years, largely in response to the erosion of the clinical academic enterprise due to changes in the health care industry. In fact, some of the most successful medical schools and medical centers have established such plans and have achieved increased faculty and patient satisfaction. Performance-based and mission-based compensation plans have been developed to improve faculty productivity in both patient care and academic research. Compensation is often both financial and non-financial, and is based on recognition of academic standing. Productivity metrics and incentive plans for academic scholarship, research and teaching have been instituted in clinical departments of all disciplines. Driving the development and implementation of these plans is the decrease in patient clinical

revenues, reduced extramural research support and increased competition among medical centers. At the heart of these plans is a need to capture, quantify and align the range of academic and non-academic clinical activities with the mission and activities of their departments and institutions.

**Academic clinical productivity plans and metrics.** For any academic clinical metric and performance plan to succeed, the member faculty must share the costs and accept some re-allocation of resources for the promotion of academic research, as well as the training, academic development and retention of young faculty. NYU SoM has undergone a stunning transformation to FGP plans over the past 10 years, and the majority of new clinical faculty are now members of FGPs. However, a number of full-time and voluntary NYU SoM clinical faculty have academic faculty titles and are not members of FGPs. While some of these faculty are very involved in the academic mission of the SoM and provide invaluable service, greater effort needs to be directed toward re-engaging many of the others in our academic mission. As it presently stands, all physicians at NYU SoM must have an academic faculty appointment to qualify for admitting privileges to the hospital. Private practitioners, many of whom are voluntary faculty with academic titles, derive significant benefit from the relationship with NYU SoM, including an enhanced personal reputation. The SoM values its relationship with non-FGP faculty, many of whom are highly qualified private practice physicians who make important contributions in patient care, patient referral, and in some cases teaching and SoM culture. However non-FGP faculty can often represent a direct competition to the FGP faculty, complicating the task of developing academic clinical departments that reconcile and optimize the competing needs of patient care and clinical revenue with research and education. The relationship between the SoM and the private practice faculty needs to be updated and a new standard established with respect to academic activities and financial support for the department's research and education missions. Equally important, the FGP model at NYU SoM, which was originally developed as a patient care-only plan, also needs to be updated. Mechanisms to promote or reward academic achievement should complement the existing compensation system of the FGP. In the absence of a compensation plan that recognizes academic productivity, most clinical faculty are unlikely to succeed in academic research while competing with private practice physicians who do not bear the same teaching, administrative or financial burdens.

There are a variety of plans and models that have been developed to promote and reward academic productivity in clinical departments. Most plans seek to balance competing missions that typically define academic clinical departments. Some plans are not designed to increase clinical productivity, but rather, to align compensation with clinical and academic scholarly activities in a manner that rewards and honors outstanding service and achievements. A common feature of many of these plans is a reward for academic productivity through extra compensation based on obtaining research grants, publishing peer reviewed papers and abstracts, leading or participating in clinical trials, performing outstanding teaching and outstanding administration of residency programs. Plans have generally avoided benchmarking only the number of patient visits or procedures since it is a measure of clinical revenue but not necessarily quality of care or contribution to the mission of the department. Benchmarking numbers of procedures or patient visits also discourages academic participation in clinical trials and overall academic performance. Some plans incentivize academic clinical productivity by benchmarking

increases in outcomes or quality of care, thereby promoting new and innovative approaches. *The AEC believes that measurement of academic success should be left to departmentally-based criteria that have been vetted and accepted by a standing committee for academic clinical excellence. Measures of success can vary widely in different disciplines, creating a danger in overly quantifying or uniformly defining “success”.*

No individual faculty member can possibly contribute to all of the essential missions of an academic clinical department. Most academic clinical departments therefore need to maintain a portfolio of different faculty, each valued for their respective contributions to the primary missions of the department. At NYU SoM, as at most medical centers, the mission of academic clinical departments can be summarized as 7 goals: (1) patient care, (2) education, (3) administration, (4) research, (5) development and accrual to clinical trials, (6) national and international recognition, and (7) financial stability and growth. The challenge for all clinical academic departments is devising financially self-sustaining, academic clinical structures that accommodate and value the ability to contribute to these missions from the different types of physicians that collectively comprise the department. At NYU SoM they typically consist of:

- Full-time FGP clinicians that primarily see patients, deliver care and contribute to the educational mission.
- Full-time FGP clinicians that see patients, perform research and contribute to the educational mission.
- Full-time non-FGP clinicians that primarily see patients and deliver care, although some also do participate in research and contribute to the educational mission.
- In some departments, private practitioners in FPOs.
- In some departments, voluntary part-time faculty.

The challenge is to construct means to involve and best utilize these groups of clinicians in the development of outstanding academic clinical departments.



## **AEC RECOMMENDATIONS REGARDING THE PROCESS TO PROMOTE AND REWARD ACADEMIC CLINICAL INVESTIGATION**

### ***Define academic expectations, rewards and incentives for full-time and voluntary clinicians with part-time appointments***

***a. Uncouple academic appointments from hospital privileges.*** The Dean should convene a group to study this key issue in depth and explore its intended and unintended consequences. The AEC recognizes the importance of our voluntary faculty to the overall mission of the SoM and hospital patient referrals. Simultaneously, we need to balance the role of the voluntary faculty with a means to facilitate and promote academic clinical research through FGPs.

***b. Develop new means for financial support from the non-FGP and voluntary physicians at NYU SoM directed to the academic clinical mission of departments and the institution. Redesign the FGP to accommodate and promote academic clinical research.*** Voluntary and FPO physicians do not typically provide financial support to the academic mission of NYU SoM. The committee suggests mechanisms be explored by which all voluntary and FPO physicians would be expected to actively support the research and education missions of the departments by means of annual donations and/or assistance with philanthropy. Targets should be set by the school and departments. At present, one of the few positive reasons for being a member of the FGP is financial stability. FGPs typically pay a Dean's tax, whereas FPOs and voluntary physicians have no formal or structured expectation to contribute financially or academically to the mission of the SoM or the departments with which they are associated. Non-FGP physicians need to be re-engaged in the different academic missions of NYU SoM and the clinical departments, including education and research missions, and in the financial support of these missions. A significant challenge we now face is that FGP physicians often compete with non-FGP physicians and voluntary physicians for patients and resources that make it difficult to establish effective research and education programs, build clinical practices and financially sound departments.

***c. Correct a geographic mismatch between the clinical leadership and the patients of NYU SoM.*** A contributing problem to the development of academic clinical research is that, as presently configured, the academic clinical leadership in the School of Medicine (Chairs and division chiefs) are often not based at the SoM, but rather, at our affiliated locations such as Bellevue Hospital and the VA. In fact, Tisch Hospital has the largest number of non-FGP and non-academic physicians. The SoM therefore has a deficit at Tisch Hospital of precisely the type of faculty/physicians whom we most need to develop strong academic clinical departments within the structure of the FGP. As a result, FPO physicians and voluntary part-time physicians at NYU SoM often have the greatest access to insured private patients and can establish referral bases that many FGP physicians cannot, because they instead see mostly under-insured and uninsured patients at our affiliated sites. The most striking example of this is the department of Medicine, in which the Chair and many division chiefs are located at the VA and Bellevue Hospital. This results in an inability to build clinical research teams and programs at Tisch Hospital and the Clinical Cancer Center, where the largest number of insured private patients are seen, and where some of the most experienced physicians are based with a significant referral base. This is in contrast to many other hospitals and medical centers in the country such as the Mayo clinic, Memorial Sloan Kettering, Johns Hopkins and Mass General, where primarily full-

time academic faculty treat patients at their main hospital. This structure enables FGP clinicians to establish national and international referral systems and to enroll large numbers of patients into clinical trials for study. Moreover, residency and fellowship programs cannot thrive in the FPO and voluntary faculty environment. This is not to say that we cannot build strong academic clinical departments only by achieving geographical concentration at Tisch Hospital. Rather, we need to establish key leadership positions at all of our hospitals and achieve the proper balance of faculty, particularly a greater percentage of academic clinical faculty, at Tisch Hospital and the Clinical Cancer Center.

d. Establish the following academic criteria for promotion of clinical faculty:

- Publishing papers in peer reviewed journals.
- Developing investigator-initiated clinical trials.
- Participating in clinical trials accrual.
- Teaching.
- Academic administration (fellowship and residency programs).
- Obtaining extramural grant support.
- Achieving national and international recognition.
- Attending and presenting at important conferences and other forms of research activity.
- Establishing collaborations with basic research scientists.

e. Reward outstanding academic clinical productivity:

There are a variety of ways to incentivize and reward academic clinical research and productivity. Given the complexity and diversity of clinical departments, *the AEC felt that rather than micro-manage how departments achieve this portfolio, the departments themselves should develop plans for approval by a standing committee and that the Chairs and/or program chiefs should be held accountable for achieving these goals.* Most existing programs that have been successful at other medical schools have in common the withholding of 10-30% of individual compensation of clinicians (at risk compensation) that is then earned back by meeting metrics and expectations.

- Extra compensation and/or protected time for research for publishing papers in peer reviewed journals.
- Protected time for research.
- Access to data management.
- Additional resources and facilities for research.
- Specific recognition through titles of distinction and endowed chairs.
- Return of some capital for research based on indirect costs (discretionary funding account).

In this regard, more “triple threat” physicians need to be cultivated and the existing ones retained and rewarded. Both the FGP and the FPO models, which are patient volume incentive-based, disadvantage triple-threat clinicians whom we would like to cultivate and recruit. Chairs need to make it part of the culture that less retention will occur for clinicians who fail to perform as expected, in terms of both building their practice (to a reasonable extent) and conducting at least a minimum level of academic research required for steady demonstration of excellence on the educator/clinical track pathway.

## **RECOMMENDATIONS OF THE AEC FOR ACHIEVING CLINICAL ACADEMIC EXCELLENCE**

*Departments and divisions need to develop plans for metrics and targets to implement a program for achieving academic clinical growth and excellence.* Department Chairs and section chiefs should be empowered and will be accountable for development, implementation and growth of programs to achieve clinical academic excellence. The AEC makes the following specific recommendations.

- A standing Clinical Academic Excellence Committee comprised of distinguished internal and external advisors should be appointed by the Dean to aid in the development and assessment of criteria and standards for academic clinical excellence to be achieved.
- The Chairs of clinical departments and section chiefs should provide an assessment of milestone targets for academic clinical excellence and develop a plan for achieving a balanced program that includes academic clinical research, patient care, teaching and administration. This plan should be discussed with and submitted for approval by the Dean and a standing Clinical Academic Excellence Committee. The standing Academic Excellence Committee should function as an advocate and aid the department Chairs and section chiefs in this endeavor. Since departments and sections differ widely in their needs and structure, delivery of care, academics and operation, they are best qualified to develop these targets and plans in consultation with the standing Committee and the Dean.
- A period of 6 months should be provided for study and planning for the development of these plans.
- After acceptance of these plans, a transition period of 18 months should be undertaken for their implementation.

### *Expectations of clinical faculty and clinical departments- a collective portfolio for achieving academic excellence.*

As noted earlier, it is not possible for individual faculty members to fulfill all of the essential missions of an academic clinical department. Academic clinical departments therefore need to maintain a balanced portfolio of different faculty, each valued for their respective contributions to the primary missions of the department. With this in mind, the AEC has developed a set of recommendations for the development and growth an academically excellent clinical department.

For the academic success of clinical departments and divisions, it is crucial to clearly define the expectations of their faculty and converge the important and different contributions of all of faculty in the achieving academic excellence in the department or division. These different groups of physicians include:

- High volume clinicians who drive significant and much needed patient revenue. These physicians can be members of FGPs, FPOs or voluntary faculty.
- Clinician-researchers, a group we need to strive to grow and protect. Generally speaking, this group typically belongs to FGPs and vary in the allocation of their effort to clinical practice and research. There are members of FPOs that also perform outstanding clinical research.

Recognizing that many clinical departments need a portfolio representing valuable contributions from all of these clinicians, the AEC recommends the following faculty expectations to achieve a balanced and academically outstanding department (Table 2).

**Table 2. Departmental faculty expectations by faculty category for academic excellence**

Faculty category	Investigator-initiated research	Education	Department revenue	Administration	Accrual to clinical trials	National & international recognition
FPO	+/-	+	++	+/-	+	+/-
Voluntary	+/-	+	++	+/-	+	+/-
FGP	++	+	++	+	++	++
Full-time clinical, non-FGP	+	+	-*	+	++	+
Full-time clinical & research, non-FGP	+	+	-**	+	+	+

\* These faculty are primarily located at Bellevue Hospital and the VA, and can contribute departmental revenue through research grants and philanthropy.

\*\* These faculty are primarily located at Tisch Hospital.

In aggregate, departments should attempt to achieve a portfolio to achieve academic clinical excellence by balancing the contributions and expectations of these different groups of clinical faculty and clinicians. As a rough rule of thumb, collectively achieving 3+ in each category through a balanced portfolio of faculty would aid in the 6 major missions of each department directed to academic excellence. The manner by which different departments and divisions achieve that balance should be described and discussed with the Dean in the departmental academic excellence plan, since it can be quite different for different departments and services. For instance, in some cases departments might rely on several high volume clinical faculty for significant clinical revenue, enabling greater protected time and a greater sharing of revenue for

other faculty to conduct research, teach and carry out administrative and programmatic initiatives.

## **INCENTIVE AND BONUS PAY PROGRAM**

A recent review of a sampling of 62 medical schools (reference #9) found that roughly half of all medical schools in the survey have now established programs in which full-time research faculty have the opportunity to earn additional salary, unrestricted discretionary research funds for the investigator's lab and/or department or program, or receive other forms of compensation based on surpassing benchmarks for performance (~40% of private and 65% of public medical schools). While these types of performance based compensation programs have been in existence for some time in many clinical academic departments, increasingly over the past decade they have been successfully instituted in basic research departments as well. It is imperative that to equalize incentive programs that both basic research and clinical faculty be offered participation in the same compensation programs.

Additional compensation is generally made available to full-time tenured and tenure-eligible (tenure-track) faculty regardless of department affiliation based on several factors:

1. Surpassing by some defined amount the required metric for investigator salary recovery.
2. Obtaining grant support in some significant excess of typical indirect cost recovery for the institution (e.g., obtaining a very large grant at full indirect cost recovery regardless of surpassing required extramural salary benchmarks).
3. Some combination of excess salary support and large indirect cost recovery.

The size of incentive or bonus payments varies widely among different institutions, but almost universally, all schools with incentive programs place a financial cap (upper limit) on the amount that can be obtained, and the majority provide bonuses or incentives on a one year basis, reviewed annually or semi-annually.

Financial incentive bonuses directed to augmenting salary are sometimes capped at no more than 125% of the AAMC regional mean salary, but more frequently they are capped as a percentage of the institutional (total) salary. Approximately 80% of schools in the survey (reference #9) provide performance incentive salary bonuses, but they cap the amount at 10% to 30% of institutional salary. Very few schools exceed 30% of institutional salary. A more difficult administrative issue that schools must contend with when providing the opportunity for performance-based salary bonuses is whether they should be included in the faculty member's institutional base salary. For federal grants, and specifically for the purposes of NIH sponsored grants and contracts, more schools include performance supplements in the federal institutional base salary calculation than do not. The implications of this decision need to be assessed at NYU SoM.

As described earlier, in addition to financial salary incentives, other types of incentives are also provided in many clinical departments for surpassing academic benchmarks, such as providing protected time for research and writing, data management, research funds and various forms of infrastructure support. For many academic clinical investigators, the ability to obtain much coveted protected time for research is an important feature of an incentive program. In the setting of the NYU SoM FGP, this provides the only opportunity to conduct research.

There was agreement among the AEC members that incentives are meant for those faculty that perform well above the accepted metrics, not just for meeting metrics or slightly surpassing them. The AEC assessed the different incentive and bonus pay programs in the literature.

***With regard to the different needs of NYU basic and clinical research investigators, the AEC suggests the following incentives.***

- Salary incentives should be triggered when the individual extramural salary support exceeds the present benchmark by 10%. It was left unresolved whether the additional salary support is restricted to that which recovers full indirect costs at federal rates, but the AEC was leaning in that direction. If the financial incentive is to be used as a salary bonus, then only up to 50% of the financial incentive can be used to supplement salary, 25% will go to an unrestricted discretionary research fund for the faculty member, and 25% will be provided to the department. The faculty member will have the option of apportioning the financial incentive in any manner up to these limits. For instance, they could place up to 75% of the money in a discretionary research fund (with 25% mandated for their department), or all of the money in a departmental fund if they so wish. It is expected that the departmental portion of these funds will be used to enhance the research programs of the department through the purchase of equipment, supplies and seed money for new projects that should involve or benefit the investigator. A full explanation of the use of these funds will have to be submitted to the Vice Dean of Science for approval by the Department Chair in agreement with the faculty member.
- Salary bonus and other incentives should be triggered when the individual faculty member return on the federal indirect cost rate exceeds by one standard deviation above the mean for the institution per capita research investigator.
- Incentives should kick in for the successful funding of a program project, center or Spore grant. The AEC suggests that the amount of incentive be tied to a portion of the total indirect costs recovered, 3% of indirect, which will be returned to the investigators. The PI should receive at least half or more of the incentive.
- Incentives should be triggered for faculty that develop and successfully fund training grants. Since NIH funded training grants provide only 8% indirect costs, a fixed amount of financial incentive should be established. Given the important stability that training grants provide to research programs, value should be placed on obtaining and maintaining these awards that are very time consuming to write and administer. The AEC suggests that Chairmen be given the option of supplementing salaries by a fixed dollar amount to the PI of the training grant, or that the amount of salary that the training grant PI needs to recover to meet metrics be reduced. These details remain to be determined.
- Clinical investigators value protected time as well as salary bonuses, and should be able to choose how they would prefer to apportion these as incentives. The AEC suggests a sliding scale for protecting time for faculty that surpass metrics.

***Specifically for clinical faculty members, the AEC developed the following additional incentive and reward recommendations.***

- *Reduce the fees of clinician-researchers in the FGP.* The SoM needs to revise the FGP plan to accommodate clinicians who would like to devote substantial time to academic clinical and translational research (this could be defined as 25% or more effort). Currently, the FGP model, which is driven by clinical economic metrics, does not easily accommodate clinicians with research activity.
- *Explore the possibility of part-time malpractice insurance coverage plans and reduce administrative fees such as rent.* This is particularly a problem for some of our best academic physicians who are based at Bellevue Hospital and would like to see patients in the NYU FGP 1-3 days per week. In addition, consideration should be given to waiving or reducing the various taxes and administrative fees to decrease financial barriers for these clinicians. One rationale is that such physicians will utilize their practices to enroll study patients in clinical trials and build registries and tissue banks.
- *Protect the time of clinician-researchers in the FGP.* The SoM must not only make the FGP more economically viable for this clinician researcher group, possibly by reducing the administrative Dean/Chair tax, as well as the malpractice fee as noted above, but also compensate these clinician researchers for their research effort early in their careers to allow sufficient protected time. Recruitment of such physicians should be a priority as part of the Science Strategy initiatives and the COEs. Extramural funding standards should be no less than for basic science researchers, but the recruitment packages should take into account the particular issue of protected time

### **Final Comments**

The voluntary physicians and FPO faculty at NYU SoM were not members of the Academic Excellence Commission and have not yet had a voice in this report, largely because at the outset, it was not foreseen that their role in the institution would constitute a significant part of the discussion of the Phase II report. It is clearly imperative that a dialogue be undertaken with key representatives of these groups of physicians. A transformative change in the academic structure and standing of our clinical departments, and the ability to enact real change, will only succeed at NYU SoM with the support and representation of these physician groups.

## **BASE SALARY COMPENSATION**

An important consideration for the AEC in the Phase II report was the development of a base salary compensation program, also known as a base salary for full-time faculty members. A full-time faculty member at NYU SoM is defined as one who is employed for 12 months of the calendar year and has the expected percent effort assigned appropriately to their performance level, with no more than 20% (1 day per week) devoted to other activities. Base salary is typically defined in this document, consistent with that of the AAMC, as the minimum salary that can be paid to full-time tenure-eligible or tenured faculty. It was agreed by members of the AEC that base salary should be the same by rank for both basic and clinical faculty and should apply to both tenured and tenure-eligible full-time faculty. Based on a published survey of 62 medical schools (reference #9) roughly half of medical schools that participated in this survey have developed base salary compensation programs. The recommendations of the AEC are for a base salary by rank, which is in accord with roughly half of the medical schools surveyed.

Based on this survey and the published literature (located in the Appendix), NYU SoM is presently in the minority of institutions that have not developed some form of financial salary guarantee. Of the institutions that have developed some form of base salary, roughly half have linked base salary to tenure as a guaranteed level of salary support and half have not. In most of the schools that have developed a form of financially guaranteed salary, the “institutional salary” is taken as the full salary (exclusive of bonuses and incentives) that a faculty member receives for meeting performance expectations. NYU SoM, institutional salary is the salary that most faculty members have traditionally been paid in the basic science departments. Of those schools that guarantee some level of salary support, only about 10% guarantee full support (institutional salary), which is also independent of meeting performance benchmarks and expectations. The remainder of schools that guarantee some form of salary support usually do so at a fixed level that is not tied to achieving performance expectations, and fulfills the typical definition of base salary. In addition, of those schools in which tenure is the means to provide a financial guarantee of salary support, the financial guarantee is known as tenure base salary. The downside to a tenure-base salary system is that non-tenured faculty have no guaranteed base salary. Of the schools that have developed a base salary compensation program, more than half have also developed various mechanisms for assuring bonus pay and other incentives, including protected time for academic clinicians for exceeding performance expectations. Finally, at most schools the base salary is permitted to increase over time to account for increased cost of living, but rarely on an annual basis. Base salary is therefore not directly tied to inflation and other indices, but it is increased periodically. Importantly, schools have found that the base salary amount cannot and should not be a negotiable in hiring new faculty. Altering base salary levels individually results in a variable if not capricious system of compensation that is not equitably and fairly applied across the faculty and undermines the system of compensation.

The AEC spent a considerable amount of time researching the types of base salary structures adopted by similar and regional institutions, and considered AAMC recommendations as well. Not surprisingly, the numerical base salary varies widely among different institutions, largely affected by region, size of the school faculty and historical precedents (see Figure 4 for representative examples). Base salaries varied from 75% of the AAMC 50<sup>th</sup> percentile to as little as the 20<sup>th</sup> percentile of the AAMC salary scale, using regional data. In some schools there is a backward sliding scale, providing less financial support the higher the academic rank, whereas most schools use a forward sliding scale, increasing the size of the base salary with increasing



academic rank. In regionally competitive environments, the market also drives the consideration of base salary levels.

### Figure 4. Base Salary Policies and Benchmarks

- Base salary carries with it the responsibility for faculty to participate and contribute to the academic endeavors of the medical school as assigned by the Chair
- The value of base salary is set at the 50<sup>th</sup> % of the AAMC Basic Science salary for the Northeast, by rank
- Base salary is one of the elements used to determine the value of the education allocation
- The value and purpose of base salary varies by institution. Examples are as follows:

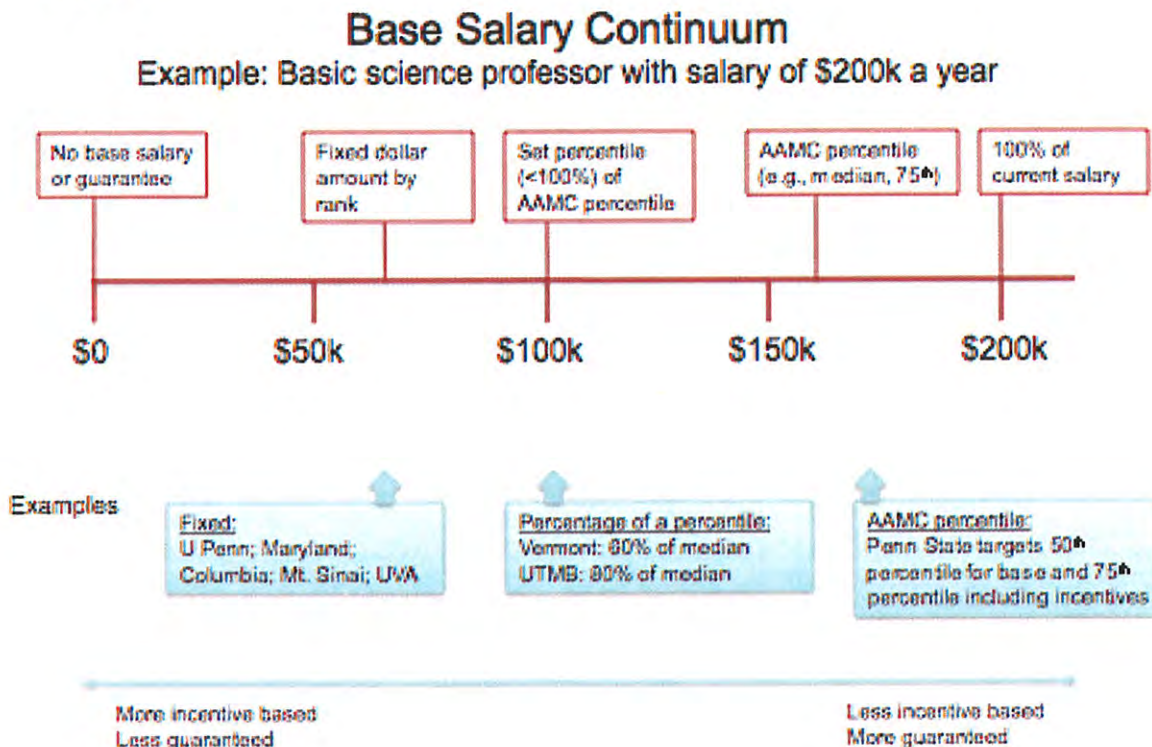
#### Base Salary Benchmarks

University of Colorado	70% of salary of basic science faculty by rank
Miami	75% of first \$40,000 plus 50% of remainder of last year's compensation
Louisville	Not to exceed 66% of total regular compensation
Michigan	Equivalent to 9/12 <sup>th</sup> of salary
New Mexico	Equivalent to 85% of salary
Maryland	Fixed dollar amount by rank. Set annually.
UPenn	Fixed dollar amount by rank. Set annually. Prof. \$82,423; Assoc Prof. \$65,938; Asst. Prof. \$62,750.
UTMB	80% of 50 <sup>th</sup> percentile of AAMC faculty salary survey
Vermont	80% of median AAMC basic science faculty salary
Mount Sinai	Dept. of Medicine. Fixed dollar amount by rank set annually. Prof. \$190,000; Assoc. Prof. \$152,500 - \$168,000; Asst. Prof. \$125,000 - \$135,000. Faculty required to fund 90% of base.
UVA	Fixed dollar amount by rank set annually, dollar amount by rank set annually. Prof. \$88,094; Assoc. Prof. \$73,211; Asst Prof. 59,658.

Taken from the 2006 PWC Report for NYU SoM. Source: PWC survey data.

The AEC entertained various compensation models, including the so-called “x-y-z” models, in which x represents base salary, y represents the remaining institutional salary, and z represents an incentive, which is provided for outstanding achievement, not merely for meeting expectations. Thus, full institutional salary is achieved by x + y. Shown here (Figure 5) is an analysis conducted by the AEC of the types and ranges of base salary compensation programs. Based on New York City and regional scales for base salary compensation programs at neighboring institutions (Figure 5), the AEC recommends the following sliding scale for compensation independent of tenure status (Table 3). This scale is consistent with other compensation programs in the New York City region, and is to be applied only to full-time tenure-eligible or tenured faculty in both basic research and clinical departments at the School of Medicine.

Figure 5



**Table 3. AEC Recommendations for base salary by rank compensation**

Rank	Base salary
Full professor	\$85,000
Associate Professors	\$75,000
Assistant Professors	\$65,000

## **METHODS AND PROCESS**

In the fall of 2007, newly invested Dean Grossman appointed a Commission on Academic Excellence. The Commission consisted of a broad spectrum of faculty representing many different interests and experiences at NYU School of Medicine, which collectively provided a balanced and fair representation of the different School of Medicine faculty in basic, translational and clinical research, as well as clinical practice and the Faculty Council. Following the mandate and mission as outlined earlier, the Commission established a timeline (Appendix in Phase I report) for the study and development of a two phased set of metrics and standards for academic excellence, to be applied across the entirety of the medical school research faculty: Phase I- academic standards and productivity metrics for basic research faculty; Phase II- academic standards and productivity metrics for clinical research faculty; recommendations for base salary; productivity incentives and rewards.

The Commission met bi-weekly, and when necessary weekly, for prolonged and intense analysis and discussion of each issue under consideration. The agenda and minutes of meetings for the Phase II report can be found in the Appendix. The documentation used in the AEC analysis is listed in the bibliography that follows and reproduced in the Appendix. The AEC relied on published reports; the 2006 Price Waterhouse Coopers (PWC) analysis of NYUSM; comparative research analyses and modeling developed by the Commission's administration group led by Mr. David Church; previous investigative committee findings (Dean's Committee on Institutional Resources, DCIR); the Committee on Expectations Regarding Teaching (i.e., Artman II); interviews and discussions with key information sources at NYUSM (Dr. Andrew Brotman, Vice Dean for Clinical Affairs and Strategy, Chief Clinical Officer; Ms. Annette Johnson, Senior Vice President and General Counsel, NYU and Vice Dean and Senior Counsel for Medical School Affairs; Ms. Nancy Sanchez, Vice Dean for Human Resources), and substantial discussions with the Commission's external advisors.

### Literature and information sources consulted in the development of this report

1. Abouleish, A.E., Apfelbaum, J.L., Prough, D.S., Williams, J.P., Roskoph, J.A., Johnston, W.E., and Whitten, C.W. (2005). The prevalence and characteristics of incentive plans for clinical productivity among academic anesthesiology programs. *Anesth Analg* 100, 493-501.
2. Anderson, M.B. (2006). Educating doctors to provide high quality medical care: a vision for medical education in the United States. Association of American Medical Colleges *commissioned report*.
3. Andrae, M.C., Blad, K., and Cabana, M.D. (2006). Physician compensation programs in academic medical centers. *Health Care Manage Rev* 31, 251-258.
4. Awasthi, S., Beardmore, J., Clark, J., Hadridge, P., Madani, H., Marusic, A., Purcell, G., Rhoads, M., Sliwa-Hahnle, K., Smith, R., Edejer, T.T., Tugwell, P., Underwood, T., and Ward, R. (2005). Five futures for academic medicine. *PLoS Med* 2, e207.
5. Bhagwat, J.G., Ondategui-Parra, S., Zou, K.H., Gogate, A., Intriore, L.A., Kelly, P., Seltzer, S.E., and Ros, P.R. (2004). Motivation and compensation in academic radiology. *J Am Coll Radiol* 1, 493-496.
6. Bluth, E.I. (2007). An incentive system for radiologists in an academic environment. *J Am Coll Radiol* 4, 332-334.
7. Bowman, M.A., Rubenstein, A.H., and Levine, A.S. (2007). Clinical revenue investment in biomedical research: lessons from two academic medical centers. *Jama* 297, 2521-2524.
8. Brandt, T.L., Romme, C.R., LaRusso, N.F., and Lindor, K.D. (2002). A novel incentive system for faculty in an academic medical center. *Ann Intern Med* 137, 738-743.
9. Brubaker, S.J., Gleason, W.M., and Sebring, A.S. (2007). Survey analysis: Report on faculty compensation policies and practices in basic science departments. Virginia Commonwealth University.
10. Bunton, S.A., and Mallon, W.T. (2007). The continued evolution of faculty appointment and tenure policies at U.S. medical schools. *Acad Med* 82, 281-289.
11. Decker, M.C., and DeBehnke, D.J. (2002). Mission-based budgeting hours model: an accurate way to understand physician costs. *Acad Emerg Med* 9, 252-254.
12. Emery, S.E., and Gregory, C. (2006). Physician incentives for academic productivity. An analysis of orthopaedic department compensation strategies. *J Bone Joint Surg Am* 88, 2049-2056.
13. Garson, A., Jr., Strifert, K.E., Beck, J.R., Schulmeier, G.A., Patrick, J.W., Buffone, G.J., and Feigin, R.D. (1999). The metrics process: Baylor's development of a "report card" for faculty and departments. *Acad Med* 74, 861-870.

14. Jonisch, A.I., Kligerman, S., Nagy, E., Bhargavan, M., Forman, H.P., and Sunshine, J. (2006). What characterizes academic radiology departments that secure large amounts of external funding for research? *Acad Radiol* 13, 1513-1516.
15. Kennedy, D.W., Johnston, E., and Arnold, E. (2007). Aligning academic and clinical missions through an integrated funds-flow allocation process. *Acad Med* 82, 1172-1177.
16. Kratz, R.D., and Mets, B. (2005). Finding an incentive plan that actually works. *Physician Exec* 31, 54-56.
17. Libecap, A., Wormsley, S., Cress, A., Matthews, M., Souza, A., and Joiner, K.A. (2008). A comprehensive space management model for facilitating programmatic research. *Acad Med* 83, 207-216.
18. Mallon, W.T., and Korn, D. (2004). Education. Bonus pay for research faculty. *Science* 303, 476-477.
19. Miller, R.D. (2005). Academic anesthesia faculty salaries: incentives, availability, and productivity. *Anesth Analg* 100, 487-489.
20. Miller, R.D., and Cohen, N.H. (2005). The impact of productivity-based incentives on faculty salary-based compensation. *Anesth Analg* 101, 195-199, table of contents.
21. Reece, E.A., Nugent, O., Wheeler, R.P., Smith, C.W., Hough, A.J., and Winter, C. (2008). Adapting industry-style business model to academia in a system of Performance-based Incentive Compensation. *Acad Med* 83, 76-84.
22. Sheridan, D.J. (2006). Reversing the decline of academic medicine in Europe. *Lancet* 367, 1698-1701.
23. Tarquinio, G.T., Dittus, R.S., Byrne, D.W., Kaiser, A., and Neilson, E.G. (2003). Effects of performance-based compensation and faculty track on the clinical activity, research portfolio, and teaching mission of a large academic department of medicine. *Acad Med* 78, 690-701.
24. Warner, J.J., Herndon, J.H., and Cole, B.J. (2007). An academic compensation plan for an orthopaedic department. *Clin Orthop Relat Res* 457, 64-72.
25. Williams, R.G., Dunnington, G.L., and Folse, J.R. (2003). The impact of a program for systematically recognizing and rewarding academic performance. *Acad Med* 78, 156-166.
26. Willis, D.R., Kelton, G.M., Saywell, R.M., Jr., and Kiovsy, R.D. (2004). An incentive compensation system that rewards individual and corporate productivity. *Fam Med* 36, 270-278.