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Faculty Success Newsletter

Winter 2004

Letter from the Editor

WITH THIS ISSUE, the School of Medicine Office of Faculty Affairs begins publication of a new bulletin for SOM faculty. The *Faculty Success Newsletter* will be published quarterly and distributed in print and electronic formats. The expected distribution list: All SOM faculty, plus department chairs, deans, administrators and others who are interested in the roles, responsibilities and career success of our faculty.

Why should there be a new publication? Most of us already receive more journals, abstracts, monographs and other publications than we can ever read, remember, clip, file or even discard properly. Yet, we believe that there is a need for this newsletter. The academic success of a medical school depends upon the faculty --- how well they teach, the quality of their clinical care and service, and their contributions to scholarship and discovery. As observed by a former AAMC President and medical

school dean, "All great medical schools have great faculty; there is no other way to do it."

But there are 1,808 full-time members of our faculty, and they are widely dispersed across several hospitals, centers, programs and, increasingly, campuses. Faculty members are busy with teaching responsibilities, laboratories, clinical practices and myriad administrative and service responsibilities. We need an efficient tool to enhance communication with faculty. We will use this newsletter to keep you informed about SOM rules and recent University and School initiatives (for example, concerning research, diversity, professionalism and curriculum reform). The *Newsletter* will also include data about the faculty, announcements about upcoming faculty development seminars, information from the Women in Medicine Committee, news of upcoming events and deadlines,

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Faculty FAQ

Q: How does the 7-year "Up or Out" clock work at the School of Medicine?

A: The *SOM Rules* state that Assistant Professors must be reviewed for promotion by the beginning of their seventh year in rank. Faculty members who are not promoted by the end of their seventh year will be given one-year's notice that their appointment will not be renewed. However, there is built-in flexibility. First, the time-clock is routinely extended (pro-rated) to account for periods of part-time employment. And if the faculty member, Department Chair and Dean all concur, extensions may be granted; valid reasons include illness, family obligations, changes in career focus or assignments or other circumstances indicating that an additional year is needed before promotion. Requests for extensions should come from the Department Chair and should include an explanation of why the additional year is needed and how the time will be used to prepare the faculty candidate for promotion.

Wanted: *Email Addresses*

If you are a regular faculty member in the School of Medicine (Instructor or above), you should have also received this newsletter by email. If you did not receive this by email, please send your email address to Cheryl.Welch@uchsc.edu so that we can update our database.

Letter from the Editor

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links to faculty support web sites and reviews of key studies and publications.

Each issue of the *Faculty Success Newsletter* will include these sections:

- **Faculty Facts** – This section will provide a graphic snapshot of faculty data, characteristics or trends. In this first issue, we include two charts that highlight the size of our clinical faculty and their distribution by rank and department.
- **Rules and Regulations** – Each issue of the *Newsletter* will include information about new or revised rules; these may address promotion and tenure, annual performance reviews, benefits or other faculty rights or responsibilities. The current issue includes a description of the new Research Professor series and a brief summary of the July, 2004 amendments to the SOM Rules.
- **Faculty FAQ** – One overriding objective of the new *Newsletter* will be to inform faculty and dispel myths and misperceptions about School policies. This section will be linked directly to an expanded *Frequently Asked Questions* section on the Office of Faculty Affairs Web site. Each issue of the *Faculty Success Newsletter* will include at least one “FAQ,” typically about a common misunderstanding involving faculty appointments, promotion or tenure. In this issue, the *FAQ* is about the promotion time clock.
- **Special Topics** - The *Newsletter* will include an assortment of articles that may be of interest to faculty members. In this issue, we include a summary of the School’s recent publication, *Enhancing Professionalism*. There is also a brief summary of the campus-wide study of gender salary equity. In each case, electronic links to the original documents are provided. Future “special topics” will

cover successful mentoring strategies, time management, family and professional balance, grant writing, getting started in research and other tips to promote faculty success.

- **Abstracts and Commentary** – Each issue of the *Newsletter* will include synopses of recent publications in the “faculty affairs” and academic medicine literature. In this issue, we summarize several recent studies of gender inequity --- studies that indicate that women in academic medicine, as a group, do not achieve the same success as men. We also provide a summary of recent publications about resident duty hours. Future issues of the *Newsletter* are likely to include abstracts of publications pertaining to faculty development, curriculum reform, graduate medical education, teaching innovations and other publications that may be of interest to academicians at the University of Colorado School of Medicine.

- **Other Sections** - Lastly, the *Faculty Success Newsletter* is designed to provide timely information. Therefore, each issue will include a “calendar” of upcoming events and deadlines, announcements from the Dean’s Office and news from the Faculty Senate. News of recent faculty awards and achievements will also be included.

We invite your contributions to the *Newsletter* and your feedback. If you have suggestions for the *Faculty Success Newsletter*, or if you wish to submit articles for publication or notices for the Calendar, please contact the Editor.



"It's a baby. Federal regulations prohibit our mentioning its race, age, or gender."

Rules and Regulations

Recent Changes to School of Medicine Rules

ON JULY 1, 2004 the Executive Faculty approved several changes to the Rules of the School of Medicine. The revised Rules may be viewed at <http://www.uchsc.edu/sm/sm/offac.2004.htm>. Here is a summary of the most important amendments:

Faculty Senators – Several changes were approved:

- Senate departmental representation was changed from one Senator for every 20 faculty members (Instructor or higher) to one Senator for every 30 faculty members. This change was made in recognition of the increasing size of the SOM faculty.
- The requirement that “at least one-fourth of the Senate shall be comprised of representatives from the basic sciences departments” was maintained.
- Prior to June 30th of each even-numbered year, all departments must hold elections for Senators, ensuring that all members of the Executive Faculty (Instructor and above) are able to participate fully. Senators must be elected, not appointed, by their departments.
- The chair of the SOM Ethnic Minority Affairs Committee (EMAC) was added as a permanent, voting member of the Senate.

Mission Statement – A new Diversity Mission Statement was added as an introductory section to the Rules.

Faculty Appointment Types – The new Rules now state clearly that there are four types of faculty appointment: Tenured; limited; indeterminate; and at-will. The definitions provided are taken from Article 5 of the *Regent Laws* (<http://www.cu.edu/regents/Laws/Article5.html>). The Rules clarify that faculty members holding limited or indeterminate appointments may not be reassigned to “at-will” appointments without proper notice.

Grandfathering Under the “Old Promotion Rules” - Associate Professors seeking promotion or tenure previously

had the option to be considered using the “Old Criteria.” This “grandfathering” option has been deleted. Assistant Professors hired before August 7, 1997 have already elected whether they want to come under the new or old policies for promotion to Associate Professor; they retain this option.

Research Professors – The new Research Professor titles were added to the SOM Rules. See the related article, “The Research Professor Series,” in this issue of the *Newsletter*.

Faculty Promotion and Shared Responsibilities

- Departments must provide all Instructors and Assistant Professors at least one mentor. The revised Rules emphasize that selection of mentors should take place prior to the start of the faculty member’s initial appointment but must occur within 3 months of the start of the appointment.
- **Annual Performance Evaluations** - Annual performance evaluations must be conducted for all faculty members. Annual reviews must be completed for all faculty no later than May 1st of each year (concurrent with salary setting). In the next *Newsletter*, we will provide additional details about the sometimes-confusing array of required annual reviews, performance ratings, comprehensive mid-course reviews, post-tenure reviews and annual professional plans.

Faculty Files and Letters of Recommendation – Faculty members have access to all performance evaluation documents in their files, with the exception of letters of recommendation solicited from outside the faculty member’s department, which are confidential. This section also clarifies other procedures pertaining to submission of external letters of reference for faculty promotions.

Research Professor Series

ON JULY 1, 2004 the School of Medicine formally adopted the Research Professor series for faculty appointments and promotions. The decision came after nearly three years of discussion and debate. Here is what faculty members and department administrators need to know:

The History

The Research Professor series at the University of Colorado was established by Regental action in June, 1985. These titles (Research Professor, Associate Research Professor, Assistant Research Professor and Research Instructor) were designed for faculty members who have limited teaching responsibilities and whose primary duties are to conduct research. At the time of the original Regental action, the SOM asked for an exemption from the Research Professor series, because the SOM was about to institute two specialty tracks, one designed specifically for faculty with primary research obligations. On February 20, 1986 the Regents granted the SOM’s request; the Regents approved the Research Professor Series for the University of Colorado, “*except for the School of Medicine.*”

On August 7, 1997 the SOM eliminated the research and clinical specialty tracks, and all regular faculty, from basic scientists to clinician-educators, were reunited into a single, equal, tenure-eligible track. Under the revised rules, all faculty are required to participate in teaching and scholarship, and performance must be at least meritorious in each.

In April, 2001 Dean Krugman established a Research Track Committee, to consider several issues related to research faculty. The Committee identified a clear need for a new faculty title at the School of Medicine, in order to

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Research Professor Series

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facilitate recruitment, retention, recognition and promotion of research scientists. These faculty are promising or accomplished independent or collaborative investigators, whose positions are funded solely by research grants, who are often Principal Investigators or Co-Investigators and who have limited teaching responsibilities.

The committee noted that the existing research associate titles (Professional Research Assistants [PRA's] and Research Associates) are not recognized nationally, do not offer the same opportunities for promotion, and do not confer the necessary status to recruit, retain and recognize more senior, established investigators. The committee also concluded that research scientists would not fit easily into the regular faculty ranks, since these promotions require at least meritorious performance in teaching. The Committee recommended that the SOM request reinstatement of the Research Professor series, noting also that this would help the School of Medicine comply with existing federal cost principles and regulations. Under current federal regulations, faculty members whose professional effort is 100 percent funded by federal granting agencies may not devote time to teaching, unless that teaching contributes to the funded research or aids in dissemination of the results.

Two decades after the original Regental action to establish the Research Professor series, these titles are back. They have been approved for the SOM by the Faculty Senate, Executive Faculty and Regents.

Who is Eligible?

Faculty members whose duties are to conduct research may be given titles in the research professor series. Faculty members appointed in this series will have limited involvement in instructional programs and will be supported only by non-state funds.

The Research Track Committee described the following as examples of fac-

ulty who could be appointed and promoted in the research professor series.

- Scientists who show exceptional research promise after completing 2 or more years of post-doctoral fellowship;
- Senior investigators with independent funding;
- Top scientists reporting to regular-faculty principal investigators;
- Principal investigators or Co-Principal Investigators who are also supervising post-doctoral fellows or graduate students;
- Directors of core laboratory facilities; and
- Other faculty members with highly specialized research skills who have only limited involvement in the instructional programs of the department and SOM.

Appointment and Promotion Policies

- Faculty in the research professor series are at-will employees, in accordance with state law. They are eligible for benefits but not tenure or sabbaticals.
- Annual performance reviews are required, just as for regular faculty.
- Positions in the research professor series and regular tenure-eligible faculty series are not interchangeable. Faculty members holding regular tenure-eligible appointments may be re-assigned to the research professor series only if requested by the faculty member and agreed to by the department chair.
- The promotion criteria matrix (Appendix 1 of the SOM Rules, <http://www.uchsc.edu/sm/sm/offac.rules.2004.html>) will be used to guide faculty members, department chairs and evaluation committees in determining whether faculty members meet the criteria for appointment and advancement in the research professor series.
- In all respects, the criteria for appointment or promotion to each rank are the same as for regular faculty members, except that meritorious

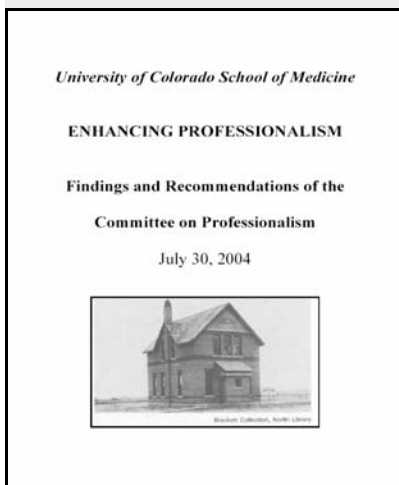
performance in teaching and service is not required. Regular and research faculty should have comparable research qualifications.

- There is a 7-year promotion “time-clock” for Assistant Research Professors. Extensions to the 7-year probationary period may be granted in accordance with current SOM policies, which stipulate that the faculty member, department chair and Dean must concur in the request for an extension.

Topics of Interest

New School of Medicine Professionalism Plan

IN LATE SEPTEMBER, 2003 Dean Krugman appointed an Ad Hoc Committee on Professionalism. The charge to the Committee was to study professionalism from a school-wide perspective --- to define professionalism for the School of Medicine, outline standards and expectations and suggest new policies for institutional change. The Committee, which included students, residents and faculty, has completed its work; a copy of the final report, *Enhancing Professionalism*, may be found at <http://www.uchsc.edu/sm/sm/offac.htm>.



While there is much written about professionalism in clinical practice, much less has been said about institutional

change. *Enhancing Professionalism* makes concrete recommendations in five areas: a) Imbedding a professionalism charter in the School of Medicine Rules; b) Adding professionalism as an expectation for faculty in letters of offer, annual performance reviews and teaching evaluations and at the time promotion and tenure decisions are made; c) Web-based and other educational strategies aimed at increasing institutional awareness; d) Efforts to identify and mitigate school-wide stresses, conflicts and pressures that contribute to unprofessional behaviors; and e) A detailed structure for reporting and responding to lapses in civility and professionalism by students, faculty, administrators or staff. There should also be a set of tailored, coordinated responses (“efferent limbs”), that can include feedback, reflection, mediation, remediation, discipline or school-wide systems corrections. The Committee’s report makes it clear that professional behaviors are interconnected and equally important in clinical and non-clinical settings.

Enhancing Professionalism is meant to serve as a document for further discussion, planning and program development. And above all, it is meant to serve as a catalyst for action. Sweeping

changes in institutional culture are probably not needed. Rather, according to the Committee, our biggest shortcomings may be: a) Our failure to recognize and reward examples of extraordinary professionalism and service; and b) our lack of timely, appropriate responses when lapses in professionalism and civility occur.

The recommendations in this report seek to put professionalism back on the School’s organizational agenda.

The recommendations were presented in September to the Faculty Senate and Executive Committee. Of course, none of the recommendations has been implemented; as of today, there are no “outcomes.” But the members of the Professionalism Committee, the Executive Committee and Faculty Senate all urged prompt action. If you are interested in assisting the School during the implementation phase or in evaluation, please contact one of the Professionalism Steering Committee members (Brian Dwinell, MD, Lorraine Adams, MSW, Maureen Garrity, PhD or Steven Lowenstein, MD, MPH). Please also take the time to read this document; the Committee would welcome your feedback.

UCHSC Gender Equity Study

LAST YEAR THE UNIVERSITY OF COLORADO Office of Institutional Research conducted a study of salary gender equity among regular, full-time faculty at the Health Sciences Center campus. The study used 2003 data from the payroll system and the SOM finance and personnel databases, primarily. Statistical analyses were conducted to investigate whether gender significantly affected salary. The complete study is available on-line at <http://www.uchsc.edu/sm/sm/offac.htm>.

Salaries were 13-20 percent higher for men, depending upon academic rank. However, these differences were largely explained by the following covariates: A) Highest degree earned (Female faculty members are less likely to hold higher paying degrees, such as an MD); B) Rank (Female faculty members are more likely to hold the rank of Instructor or Assistant Professor, with fewer holding the rank of professor); and C) Departmental affiliation and specialty (Women are disproportionately found in non-surgical and

non-procedure-oriented --- thus lower-paying --- departments and divisions. Within more homogeneous departments, such as family medicine, neurology and psychiatry, no gender differences in salaries emerged. Another observation was that female faculty members are less likely to receive special stipends for holding administrative positions, such as Department Chair or Division Chief. (See related article, page 8.)

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UCHSC Gender Equity Study (Cont.)

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The results of this study must be interpreted cautiously. The study contains no information about faculty merit, effort or productivity. The results are not “adjusted” for NIH grants, principal investigator status, clinical billings, publications, hours worked per week, job assignments (for example, teaching versus research) or other faculty characteristics or accomplishments. The study also does not fully account for the skewed nature of salary data, especially the fact that some faculty salaries are outliers at the very high end of the salary range. And only base and supplements were included in the analyses; incentive and one-time payments, which may account for a significant proportion

of total compensation, were excluded.

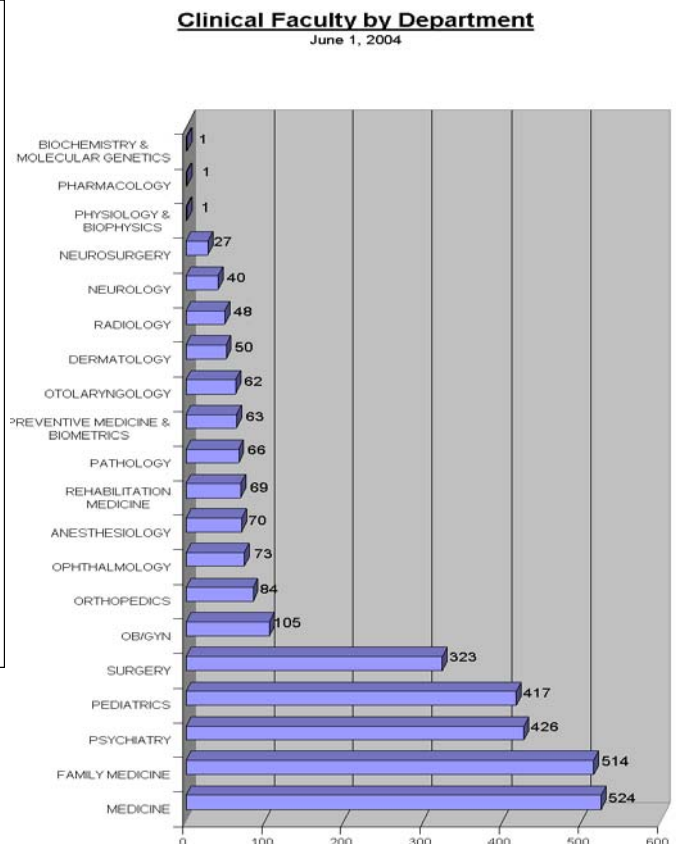
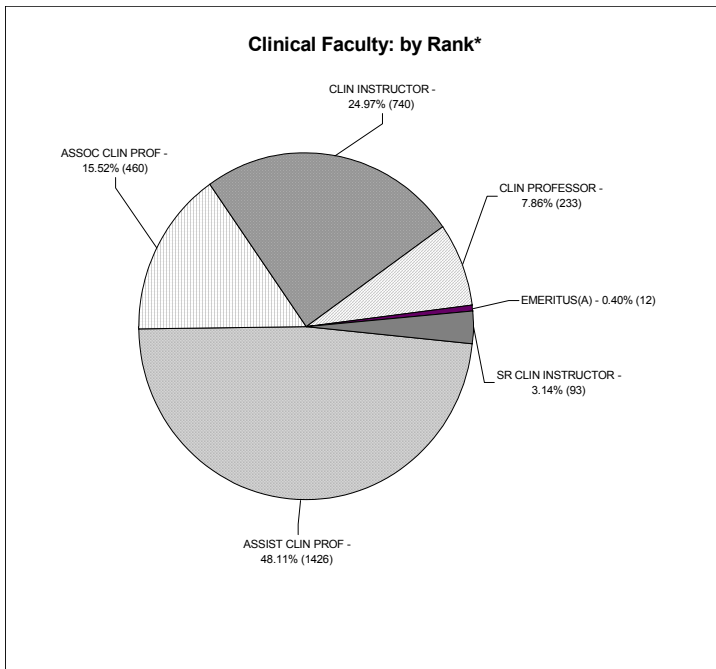
Finally, this study was designed to study salary *differences* according to gender. Using these payroll data, it is not possible to determine whether there are salary *inequities* or systematic biases that unfairly limit the academic advancement or salary potential of women. This study cannot rule in or rule out obstacles that women may face, due to gender discrimination, part-time employment, choice of specialty, lack of mentors, isolation from colleagues, inadequate resources or space, burnout or other barriers to career advancement.

It is recommended, particularly for departments where gender differences in

salary are found, that future studies be conducted to examine the salary setting and promotion processes, preferably using qualitative or quantitative methods to analyze productivity, merit and contributions to the department, school or discipline.

The Office of Faculty Affairs will begin posting a list of recent literature relative to gender inequities in faculty promotion and compensation. We are also interested in conducting more detailed, rigorous investigations of gender differences among SOM faculty salaries and promotion and would welcome your participation.

Faculty Facts



There are nearly 2,900 active members of the School of Medicine clinical faculty. These community-based physicians and health sciences professionals contribute in important ways to the School's educational programs. The vast majority (96%) volunteer their time. These two graphs provide a snapshot of the clinical faculty, by rank and department. These data are accurate as of June 1, 2004.

Women in Medicine

Women in Medicine Committee

The University of Colorado Women in Medicine Committee (<http://www.uchsc.edu/sm/csw>) is organized to celebrate and support women's careers in medicine. Since 1992 the Committee has organized the UCSOM New Faculty Orientation which is now held annually and sponsored by the Faculty Affairs and WIM Offices. The Committee also helped plan and gain funding for the Ombuds office that is available to all faculty and staff.

Faculty Development Seminars: The WIM office supports the tuition for 2 women each year to participate in the AAMC Professional Development Seminars. Each year in December the AAMC conducts a national **Early Career Seminar** for women who have not yet reached the Associate Professor level and are in their first faculty appointment. This program is targeted for MD, but is also appropriate also for PhD, faculty. Each applicant must submit a supporting letter from her Dean and Section Head or Department Chair, describing how her goals for attending the seminar relate to her work and professional aspirations. The next application deadline will be July 1, 2005, so this is a good time to consider applying for next December's seminars.

The **AAMC Mid-Career Faculty Seminar for Women in Medicine** will be held July 9-12, 2005 in Lands-

downe, VA. It is designed for women in administrative positions, such as section, division or department chair. The **next application deadline is January 1, 2005**. Only 120 faculty members from around the country may participate, and this program fills up quickly each year. Contact Dr. Rumack if you are interested in applying.

Executive Leadership in Academic Medicine. We seek to identify and nominate women for the highly successful **ELAM Fellowship Program**, which offers an intense year-long program of personal and professional development with extensive networking and mentoring opportunities. ELAM is aimed at expanding the national pool of women candidates for leadership positions in academic medicine and dentistry. The typical ELAM fellow is an associate professor or professor and usually heads a section, division, department, clinical laboratory or clinical center. The program mixes traditional executive seminars, management workshops, group projects and individual assignments aimed at developing personal leadership skills. Throughout the year, fellows interact with advisors and guest faculty culminating in a Forum for a day with their Deans and other invited guests to explore a timely substantive issue facing AHC leadership. The ELAM fellow must be nominated by the Dean, and the travel and tuition expenses are supported by the Dean's office. During the fellow-

ship there are two 7-day trips (in September and April) to Philadelphia and a 5-day trip in November to the AAMC annual meeting. The final session and Forum are in April. The deadline for nominations to ELAM, including all supporting letters, is January 15, 2005.

Please contact Carol Rumack, MD (carol.rumack@uchsc.edu), Chair of the WIM Committee and Women's Liaison Officer to the AAMC, to discuss your interest in any of these seminars and especially to evaluate your candidacy for the ELAM fellowship. These applications require letters from the Dean and additional letters of support. These fellowships are major investments in developing leadership in medicine at the University of Colorado School of Medicine. For women faculty members, and for the School, they are well worth the time and effort.

One final note: With great enthusiasm, the WIM Committee nominated Kathryn "Kate" Horwitz, who was named a Distinguished Professor by the Board of Regents in August 2004. She joins only 36 other faculty at CU with that title. It was awarded based on her 25-year career at the SOM as a world leader in molecular, cellular and tumor biology and for her work on breast cancer receptors in diagnosis and treatment. (*See related article, this page*).

Recent News

Renowned CU Breast Cancer Researcher Named Distinguished Professor

IN AUGUST 2004, the University of Colorado Board of Regents awarded the prestigious title of distinguished professor to SOM Professor Kathryn ("Kate") Horwitz, PhD. The title is the highest honor granted by the CU Board of Regent and is bestowed on members

of the faculty who have distinguished themselves as exemplary teachers, scholars and public servants, and who are individuals having extraordinary international importance and recognition.

Internationally renowned for her landmark research in breast cancer, Horwitz's contributions to medical science have benefited millions of women

around the world.

Dr. Horwitz is a world leader in molecular, cellular and tumor biology. She was the first to report that certain breast cancers contain receptors for the hormone progesterone. This breakthrough discovery, among others, led to a shift in the assessment of tumor

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Recent News (Cont.)

(Continued from page 8)

biopsies which, worldwide, now include assays for estrogen and progesterone receptors to indicate if a tumor is hormone-responsive. Her laboratory also was involved in the development of the first monoclonal antibodies to progesterone receptors, introducing entirely new technological approaches for the study and diagnosis of breast cancer.

Horwitz's work has contributed to the concept of "fingerprinting" a tumor to allow precisely targeted therapies – approaches now revolutionizing oncology. Her most recent research with hormones and receptors indicates a link to breast cancer metastasis, providing entirely new insights into possible ways to block or slow metastases –

the stage of the disease with a high mortality rate.

"Dr. Horwitz's numerous professional accomplishments have allowed her to emerge as one of the world's elite scientists," said University of Colorado President Elizabeth Hoffman. "We are proud to include someone of her stature among our faculty, and her contributions will greatly enhance the quality of CU's academic and research offerings in the health sciences."

She has more than 150 published scientific journal articles and has emerged as one of the world's elite scientists. She has received numerous national and international awards.

During her extensive career as a SOM

faculty member, Dr. Horwitz also developed the Molecular Biology Fellows Program, a degree-granting program in biomedical research for physicians. She has trained numerous graduate students and postdoctoral fellows who now contribute to the fight against breast cancer. Her teaching and training include not only rigorous science, but also the ethics of biomedical research and the art of scientific writing and teaching.

(Excerpted with permission from University of Colorado Public Relations Press Release)

Abstracts and Commentary

Compensation and Advancement of Women in Academic Medicine: Is there Equity? *Annals of Internal Medicine*. 2004;141:238-240.

For the past two decades, published studies have indicated that women in academic medicine, as a group, do not achieve the same success as men. Women start at lower salaries and from that point forward, the salary gap widens. Studies also suggest that women are promoted more slowly, are less likely to receive tenure, and are appointed less often to leadership positions. Reports of gender inequity have been reported in many medical schools and in many specialties. But there has been considerable debate about these findings, because most studies of promotion and compensation have not adjusted for potential confounders, such as years in rank or productivity (grants, publications, responsibilities, hours worked per week), department and specialty type and others. Thus, it has been impossible to determine whether the observed differences in rank and salary represent true inequities (systematic biases against women).

The paper by Ash et al is the most important study to date. The investigators compared compensation and advancement in a large sample of men and women faculty (n = 1,814) in 24 randomly-selected medical schools across the country. Faculty in all academic specialties, including clinical and basic science disciplines, were included. Existing data bases and mailed surveys were used to collect detailed information about faculty productivity, roles and responsibilities. Although these data were collected in 1995-1996, the findings were striking: Large deficits in faculty rank and salary were found, even after controlling for years in rank, leadership positions, career publications, hours worked per week, department type, degrees and other measures of professional achievement. Although base salaries of non-physician faculty were similar in men and women, "female physician faculty had a noticeable deficit (- \$11,691)." And among physicians and non-physicians, with increasing seniority the salary deficit widened for women (- \$485 per year of seniority). Female department chairs were paid \$14,000 less than their male counterparts.

The authors concluded: "Despite an adequate pipeline in academic medicine and sufficient years for women to achieve full professor rank, we found less advancement to full professor and lower salaries for women."

Other recent studies have shown lower career satisfaction among women in academic medicine. Among the reasons postulated: Inflexible work schedules; penalties for part-time positions and temporary leaves; lack of equal integration into productive research teams; absence of effective mentoring and career feedback; isolation from senior, productive colleagues; disproportionate assignment of teaching and clinical duties; lack of protected time and grant-writing support; gender discrimination; and unforgiving promotion clocks.

The April 2004 issue of *Academic Medicine* includes several additional papers about women in academic medicine.

Abstracts and Commentary (Cont.)

Resident Duty Hours

Academic Medicine (May, 2004 issue)

In the world of graduate medical education, nothing has been more controversial in recent years than the 80-hour work week. The debate resurfaced recently, in the May, 2004 issue of *Academic Medicine*. There are three thoughtful essays that address the challenges that surgical training programs face in implementing the duty hours restrictions. A review from Canada, where work hour restrictions have been in place for a decade, offers an optimistic view; according to the author, patient care has not suffered, and there have been positive changes in resident education. Residents have become more efficient and orderly learners and have realized greater opportunities to develop skills other than technical ones. But two other essays offer contrasting viewpoints. Josef Fischer, Chair of Surgery at Harvard Medical School, argues that the 80-hour work week is too short, an arbitrary limit that interferes with continuity of care; he says it represents a denial of professional values and runs counter to a surgeon's fundamental commitment to patients after surgery. The contract a surgeon has with his patients, he argues, is this: "If I assault a patient [in surgery] I have a responsibility to that patient and their family to see him or her through, 24 hours a day, seven days a week." In a separate essay, two other distinguished surgical educators offer additional views. Gracefully entitled, "Resident' Work Hours: The Five Stages of Grief," they describe how they and their surgical colleagues responded, in stages, to the work week mandates. Borrowing from Dr. Elizabeth Kubler-Ross's classic work, *On Death and Dying*, their reactions followed the 5 stages of grief: Denial; anger; bargaining; depression; and finally, acceptance (which, the authors point out, "should not be mistaken for a happy stage"). The younger of the two authors has reached the acceptance stage and argues that the 80-hour work week is an opportunity to grow and to improve surgical education. The older surgeon admits that he, and many other

surgical leaders, are still mired deeply in phase four (depression). He is saddened that "some residents feel they have the absolute right to go home regardless of the situation on the surgery service," a sense of "entitlement" that is validated by the 80-hour work week rules.

At the same time, as Michael Whitcomb points out in an accompanying editorial, it is unlikely that the duty-hour restrictions will disappear, soften or be waived for surgical or other specialties. Dr. Whitcomb notes that "there is a growing body of evidence showing that residents, even those who work less than an 80-hour week, often suffer from acute and chronic sleep deprivation, and that those states adversely affect their personal lives and their ability to perform their work." This issue of *Academic Medicine* also includes two additional research reports that add to this literature, highlighting the adverse impact of sleep deprivation on learning, cognition, task performance (for example, writing orders, reviewing medication lists and interpreting laboratory tests) and professionalism (communication with patients and staff, empathy, caring and concern).

Finally, interested faculty should turn to two recent studies in the October 28, 2004, issue of the *New England Journal of Medicine*. These studies document clearly that, when houseofficers do not get enough sleep, "attentional failures" (slow rolling eye movements, indicating profound fatigue) increase; so do serious medication, procedural and diagnostic medical errors.

Educational Epidemiology: Applying population-based design and analytic approaches to study medical education. *JAMA*. 2004;292:1044-1050.

Most research in medical education is qualitative and is composed largely of descriptive studies, essays or anecdotal reports. In this special communication in *JAMA*, the authors outline the various challenges that exist in conducting high-quality education research (such as lack of funding, inability to randomize, lack of flexibility within school-wide curricula, lack of validated and relevant outcome measures, concerns about learner privacy, small sample sizes, ineffective cross-institutional collaboration and others). Then, borrowing from standard research design methods that are effective in clinical research (for example, case-control studies, randomized trials and randomized cross-over designs), the authors describe how accepted scientific methods can be applied in educational settings. The authors argue that there needs to be greater attention paid to studying educational outcomes. The authors call for increased emphasis in, and institutional support for, programs in "educational epidemiology," which can result in more rigorous and generalizable educational research and provide a stronger evidence-based foundation to support teaching effectiveness.

Upcoming Events and Deadlines

- **Executive Leadership in Medicine (ELAM)** - Applications due by January 15, 2005, www.drexel.edu/ELAM
- **Promotion Dossiers** must be received in the Faculty Affairs Office by January 31, 2005. Contact Cheryl Welch, 303-315-7157 with any questions.

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