



Lois Kaye, M.A./Editor  
Patti Quallich, B.F.A./Computer Design Artist

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## **THEME OF ISSUE 6: Town Hall Meeting/New Curriculum Retreat: CASE System of Medical Education Update**

Dean Ralph I. Horwitz welcomed the impressive number of faculty present—150 strong—and expressed appreciation for their consistent participation in medical school activities and their extraordinary contributions to the development of the new curriculum over the past year at the Town Hall Meeting/New Curriculum Update Retreat held Wednesday evening, December 7, 2005, at the Wolstein Research Building. Progress to date and not-too-distant “future” plans for the new curriculum going into effect July 2006 were featured.

Faculty and students spent the first hour individually examining the extensive **new curriculum poster display** with ample opportunity to ask questions of the various team leaders and to provide written feedback. Posters were submitted by all six blocks of Foundations of Medicine and Health (with weekly themes and weekly schedules included), the Clinical Immersion component, Curriculum Evaluation working group, Basic Clinical Cores I and II at each of the three affiliated sites (UH/VA, Metro, CCF), and the Advanced Clinical Core. Two longitudinal themes—Research and Scholarship and Bioethics—also had posters. **Posters are currently exhibited in the fourth floor Student Lounge, room E430 of the School of Medicine, for additional faculty/student viewing and feedback.**

Dean Horwitz highlighted **changes** that have **already been implemented** to become part of the **CASE System of Medical Education**: 1) the **M.D. research thesis** requirement for the *University* Program starting with the Class of 2009 with the requisite **dedicated time for thesis research** incorporated into the schedule, 2) the establishment of the **Office of Medical Student Research**, and 3) the implementation of **RAMP**, short for **Rotating Apprenticeships in Medical Practice**, to expand opportunities for early clinical exposure.

Since his arrival in April 2003, Dean Horwitz has noted steady improvement in the credentials, specifically GPA and MCAT scores, of Case’s gifted matriculants. Case students have always been above the national average. Students entering in fall 2003 ranked 27<sup>th</sup> nationally in terms of GPA and MCAT scores. The class entering in fall 2005 boasts a remarkable ranking approximating eighth in the nation! (Final data are not yet confirmed.)

*University program goals* reflect the emphasis on *scholarship* and the *human* aspect of medicine.

### **University Program Goals:**

- Creation of **Physician Scholars**
- Preparation of students for **versatile careers**
- Training of students to work for the **benefit of patients and communities**

Dean Horwitz provided a yearly summary as he reviewed the **principles committed to in 2005** that follow.

The core curriculum of the **CASE System of Medical Education** in the Case School of Medicine and Health has four **components**. (Chart on next page.)

#### **Four Core Components:**

- Scientific and Clinical Foundations of Medicine and Health
- Research and Scholarship
- Core Clinical Experiences
- Advanced Clinical and Scientific Studies

**Flexibility** has been achieved through **independent study, mentored research experiences,** and a **redesigned elective structure.** To date, 140 faculty have committed to mentor students in the University program.

Daily schedule determinations conform to the guidelines that follow.

#### **Process of Teaching and Learning:**

- 3 interactive student-centered discussions per week
- A maximum of 20 contact hours per week
- Emphasis on clinical mastery through clinical exposure and simulation

The faculty commitment to teaching will be supported by both educational and financial resources and academic recognition.

#### **Faculty Support:**

- To provide development for interactive teaching and facilitating student-centered discussions
- To foster clinical teaching faculty who directly observe students' clinical skills
- To provide financial and academic support for faculty curriculum leaders during curriculum design, implementation, and ongoing delivery
- To provide enhanced financial support and academic rewards for the instruction of medical students

**Dr. Terry Wolpaw**, Associate Dean for Curricular Affairs, noted that Case shares the attributes singled out in published studies as leading to successful curriculum revision: 1) a history of successful change, 2) broad faculty buy-in, and 3) a visionary leader central and supportive to the process.

A joint "curriculum progress update effort" follows—noting as many features as possible in the Case School of Medicine and Health with some brief explanation.

**Dr. Amy Wilson-Delfosse**, Basic Science Curriculum Council Chair, presented brief overviews of the vertical blocks, longitudinal blocks, and longitudinal themes comprising the first 20 months of the curriculum known as **Foundations of Medicine and Health.** (See chart on page 5). The **Clinical Immersion** in blocks 2 through 6 consists of one week within the block dedicated to the presentation of selected basic science learning objectives within a clinical context. The concluding week of each block known as **Reflection and Integration** provides an opportunity for students to further synthesize and integrate concepts that have been covered within the block and perhaps even previous blocks. No new material is introduced during this week. In **March 2008**, students will have a dedicated **USMLE Step 1 study period, immediately after which they will take the licensure exam.** Then, according to their preference, they will move to **either a research block or a clinical block.**

**Dr. Dan Wolpaw**, Clinical Curriculum Council Chair, announced that in **July 2006**, a one-week "**bridge**" program to **prepare students for their clinical rotations** will go into effect. The program is currently in design, and a group of third and fourth year students has been assembled to provide input.

The **schedule template for a sample week in the Foundations of Medicine and Health** (the first 20 months of the curriculum) appears below. It consists of 20 in-class hours per week and 4 of these 20 are clinical skills sessions in the afternoons. Interactive "learning groups" (small groups) meet 3 times per week. While the "teaching" day (in-class faculty/student contact hours) has been shortened, the "learning" day can span up to 24 hours as the student takes responsibility for his/her own learning. Students are expected to take advantage of resources such as streamed lectures, individual readings, etc.

## A Week at Case School of Medicine and Health: Aligning the Schedule with Educational Goals

	Monday	Tuesday	Wednesday	Thursday	Friday
<b>8-10 AM</b>	Learning Groups	Science of Clinical Practice	Learning Groups	Self-directed Learning	Learning Groups
<b>10 AM-Noon</b>	Interactive Sessions	Anatomy/ Histopathology/ Radiology	Interactive Sessions/ Research & Scholarship (1 hour)	Self-directed Learning	Interactive Sessions
<b>Noon-1 PM</b>					
<b>1-5 PM</b>	Clinical Skills (Monday – Thursday with 25% of class each afternoon)	Self-directed Learning	Self-directed Learning	Self-directed Learning	Self-directed Learning

The new curriculum is designed to create an environment conducive to producing specific goals as outlined in these **learning-centered principles**:

- **Experiential** education to instill the skills for **critical thinking** and **lifelong learning**
- Teaching methods to stimulate an **active interchange of ideas** between students and faculty
- Students and faculty as **mutually respectful partners in learning**
- **Graduate school environment** with **flexibility** promoting **independent study** and **self-directed learning**

Plans for one of the two **longitudinal blocks--Block 8, Clinical Mastery**—revealed **model programs for the one and one-half year period from August 2006 through January 2008**. Just as basic science has stretched into the third and fourth years, clinical experiences have been further integrated into the first two years. **Introduction to Clinical Skills** (Communications and Physical Diagnosis) runs from August to December 2006 with an **Advanced Clinical Skills** component beginning in January 2007 and lasting one year. Implemented for the first time this academic year, **RAMP (Rotating Apprenticeships in Medical Practice)** will be repeated August through December 2006. RAMP, which provides **observational** experiences in diverse clinical settings, is another example of the emphasis on early clinical exposure in addition to the Clinical Immersion. **Clinical Preceptorships** afford students the continuity of a one-year experience with the same physician in a clinical setting and mark the **beginning of the student's participation in patient care**. These longitudinal preceptorships will be implemented for the current curriculum this January and will be repeated again in January 2007. In January 2008, as students are nearing completion of the Foundations of Medicine and Health, they will have an **Integration and Assessment month** prior to study for the USMLE Step 1. The Tuesday morning **Science of Clinical Practice (SCP)**, with its large- and small-group exploration of many different themes, extends throughout the entire Foundations of Medicine and Health component. **Web resources** offer the flexibility of independent study via online modules.

**Dr. Murray Altose**, Committee on Medical Education Chair, described the curriculum renewal initiative of the past year as a **“rational process”** influenced by dramatic changes in educational approaches, the explosion of knowledge, and technological innovations. Looking over his twenty-five year teaching career, Dr. Altose concluded that students learn differently today. Design teams, in fact, chose to focus on **“student learning”** rather than “faculty teaching” as the main approach to constructing a new curriculum. There was a deliberate effort to determine/prioritize the most important concepts for students to take away from their medical school education. This materialized into a comprehensive list of learning objectives. Following considerable discussion and debate, Dr. Altose noted that curriculum development moved forward and progress was made. The current critical priority is framing, or operationalizing, the curriculum around these learning objectives. Students are expected to take responsibility for their own learning through a variety of resources and flexible scheduling. The 20 faculty/student weekly contact hours offer opportunities to share, consolidate, and integrate.

Basic core experiences are designed to teach students clinical medicine, and the expectation is that clinical experiences will be integrated with the basic sciences.

Special attention has been paid to restructuring the fourth year. The **Advanced Core** is taken after University Program students have completed their Basic Cores I and II and Research blocks. The Advanced Core is a 16-week clinical experience composed of four separate four-week rotations. Four **domains** were selected based on their relevance for medicine in the twenty-first century:

- **Undifferentiated** Care
- **Chronic** Disease Care
- **Peri-Operative Critical** Care and **Pain Management**
- The Care of Older Adults: **Ageing** in Men and Women

Additional advanced experiences will include two **Acting Internships** (sub internships), which provide intensive, team-based inpatient experiences, an **Area of Concentration**, so that each student comes away with an area of expertise in a field of his/her own choosing, and various **electives**.

The retreat concluded with questions from faculty and students directed to the presenters. In his closing remarks, Dean Horwitz acknowledged the astounding accomplishments of the past year and called for continued participation over the next few months as we prepare to introduce a new way of learning medicine to the students in July.

## **ATTENTION: CLINICAL PRECEPTORS:**

Starting in **February 2006**, *all Year I* students will be participating in the **Community Patient Care Preceptorship (CPCP)**.



CPCP is a program under the Fundamentals of Clinical Mastery where students spend **one half-day per week in a physician's practice** prior to clinical clerkships. This program is designed to give students the opportunity to develop and reinforce their medical interviewing, physical exam, and presentation skills—both written and oral—via ongoing mentorship from a preceptor and with the use of an innovative online curriculum. Potential preceptors interested in learning more should contact **Dr. Mimi Singh**, CPCP Program Director ([msingh@metrohealth.org](mailto:msingh@metrohealth.org)) or **Ms. Denise Carter-O'Gorman**, CPCP Coordinator ([dco3@case.edu](mailto:dco3@case.edu)).

**Anne Gagliotti, Linda Lee and Alina Schneider**,  
former students who participated in CPCP

## **QUICK OVERVIEW OF THE NEW CURRICULUM**

Issue 6's coverage of the latest Town Hall Meeting/Curriculum Update Retreat is intended to make this section more easily understood. You will note revisions in some of the overview materials that follow based on the most current design plans.

**Use these *New Curriculum Update Bulletins* to keep informed about the progress of curriculum planning.**

Recall that the curriculum vision for the CASE System of Medical Education focuses on **four pillars: civic professionalism, leadership, research and scholarship, and clinical mastery.**

The curriculum develops the pillars through **four major components:**

- 1) **Foundations of Medicine and Health**
- 2) **Research and Scholarship**
- 3) **Core Clinical Rotations**
- 4) **Advanced Clinical and Scientific Studies**

# CASE System of Medical Education

Year I	Year II	Year III	Year IV
<b>Foundations of Medicine and Health</b> (20 months, including vacation)		<b>Core Clinical Rotations</b> (48 weeks, flexible scheduling)	
		<b>Research and Scholarship</b> (4-month block plus electives, flexible scheduling)	
			<b>Advanced Clinical and Scientific Studies</b> (10 months, flexible scheduling)

## Foundations of Medicine and Health

July 2006						March 2008	
<b>Block 1</b> <b>Becoming a Doctor</b>  (Social-Behavioral Context, Civic Professionalism, Epi/Biostats)	<b>Block 2</b> <b>Building a Human Being</b>  <i>1 Week Clinical Immersion</i> (Endo, Repro, Development, Genetics, Mol Biol, Cancer Biology)	<b>Block 3</b> <b>Food to Fuel</b>  <i>1 Week Clinical Immersion</i> (GI, Nutrition, Energy, Metabolism, Biochemistry)	<b>Block 4</b> <b>Homeostasis</b>  <i>1 Week Clinical Immersion</i> (CV Pulm, Renal, Cell, Regulation, Pharmacology)	<b>Block 5</b> <b>Host Defense and Host Response</b>  <i>1 Week Clinical Immersion</i> (Host Defense, Microbiology, Blood, Skin, Auto-immune)	<b>Block 6</b> <b>Cognition, Sensation, and Movement</b>  <i>1 Week Clinical Immersion</i> (Neuro, Mind Musculoskeletal)	<b>BOARD REVIEW BLOCK</b>	
<b>Block 7: Structure</b> (Anat., Histo-Path, Radiology)		→	→	→	→	→	
<b>Block 8: Clinical Mastery</b>		→	→	→	→	→	
<b>LONGITUDINAL THEMES</b> <ul style="list-style-type: none"> <li>• Civic Professionalism</li> <li>• Leadership</li> <li>• Population Medicine</li> <li>• Bioethics</li> <li>• Research &amp; Scholarship</li> <li>• Epidemiology/Biostatistics</li> </ul>		→	→	→	→	→	

## RESEARCH AND SCHOLARSHIP

Each student will:

- Undertake a mentored experience in research and scholarship
- Have a minimum of 4 months protected time for his/her scholarly project
- Identify a research question, develop an approach to studying the question, prepare a proposal, pursue the project and interpret the observations
- Develop a thesis in the format of a journal manuscript

## CORE CLINICAL ROTATIONS

The Core Clinical Rotations encompass three **16-week blocks** of clinical experiences that also incorporate basic science objectives. There are two 16-week blocks of basic core rotations (Basic Core I and Basic Core II) and 16 weeks of advanced core rotations (Advanced Core). Students experience both breadth and depth in clinical care, along with basic

science integration, through clinical experiences that are developmental and provide opportunities to reinforce, build upon, and transfer knowledge and skills.

The new core clinical rotations will begin in July 2006 for current students in the Class of 2008 and will be shared by students in both the University and College programs. In the following year they will begin as early as March of the second year for students in the University program. Each 16-week block will be offered at our three affiliated teaching sites (UH/VA, MetroHealth, CCF). For Basic Core I and Basic Core II, students are based at one site for the 16-week block. The Advanced Core can be taken in modules and shared among teaching sites.

## CORE CLINICAL ROTATIONS March 2008-July 2009

**BASIC CORE I:**  
Family Medicine, Internal Medicine, Surgery  
Basic Science Integration  
(16 weeks at one of 3 teaching sites)

**BASIC CORE II:**  
Neurosciences, Pediatrics, Psychiatry, Women's Health (OB/GYN)  
Basic Science Integration  
(16 weeks at one of 3 teaching sites)

**ADVANCED CORE:**  
Undifferentiated Care  
Chronic Care  
Care of the Aging  
Peri-Operative Critical Care and Pain Management  
(Each four weeks, flexible scheduling)

## TYPICAL OPTIONS FOR CORE CLINICAL ROTATIONS AND RESEARCH

March 08			July 09
Research 16 weeks (March-July)	Basic Core I or II 16 weeks	Basic Core I or II 16 weeks	Advanced Core 16 weeks Flexible scheduling
Basic Core I or II 16 weeks	Research 16 weeks (July-November)	Basic Core I or II 16 weeks	Advanced Core 16 weeks Flexible scheduling
Basic Core I or II 16 weeks	Basic Core I or II 16 weeks	Research 16 weeks (November-March)	Advanced Core 16 weeks Flexible scheduling

## ADVANCED CLINICAL AND SCIENTIFIC STUDIES

- Two Sub Internships
- Areas of Concentration: 16 weeks of linked experiences integrating basic science and clinical experiences and intended to result in an area of expertise
- Further clinical and research electives

## EDITOR'S CORNER

### Sentiments for the Season

Amid a snowy December's exchange of holiday greetings,  
Continues the now familiar routine of design team meetings.  
While installments of the new curriculum may keep us guessing,  
Rock solid certainty sets in as we begin to count our  **blessings**.

The medical school enjoys a fine reputation  
Not only for the CASE system of medical education  
But for its  **diverse composite family** that defies convention  
And includes each and every one of us by extension.

Where would we be without our  *dedicated faculty* to share their expertise and act as mentors,  
And, on occasion, challenge prevailing thought as vocal "benevolent" dissenters?  
Our  *talented students* will not become physician scholars simply by osmosis!  
Long hours of work/study combined with sleep-deprived nights can border on atrocious.

We must remember our  *resourceful staff* who remain behind the scenes.  
They're the "unsung heroes" who understand what operating a med school really means.  
Like any family, we have our "moments" where relationships are tested,  
But that intensity only happens when people care about each other and are deeply vested.

As we welcome the New Year, it's time to make some  **resolutions**.  
These just happen to be compatible with the new curriculum's own evolution.  
To be  *open-minded* and embrace new things,  
To remain  *flexible* in our thinking no matter what the future brings.

To sharpen our own  *critical skills* and commit to  *lifelong learning*,  
And be motivated to improve our minds as we become more discerning.  
To take  *responsibility for ourselves* and reach out to our  *community*,  
And own up to our mistakes—no more "diplomatic immunity."

As we cheerfully get ready for a well-deserved, relaxing break,  
Do we think about building stamina in the final stretch for curriculum renewal's sake?  
We intend to enjoy our time away and return January 3<sup>rd</sup> from our vacation retreat  
To relish simple pleasures—like finding that the university still has heat!



Lois Kaye, M.A.  
Editor  
[lsk2@case.edu](mailto:lsk2@case.edu)

*Sincere wishes for a happy holiday  
season/vacation week and a healthy,  
fulfilling New Year!*