

**MINUTES OF THE CURRICULUM PLANNING COMMITTEE**  
**SUBCOMMITTEE ON THE SCIENTIFIC FOUNDATIONS OF MEDICINE**  
September 17, 2009

PRESENT: Nirjhor Bhowmik, John Bigbee, Cindi Cornelissen, Linda Costanzo, Bob Diegelmann, Alan Dow, Richard Krieg, Deb Lebman, Nana Y. Ohene-Baah, Virginia Pallante, Ike Wood and Kathryn Zedler.

ABSENT: Margaret Grimes and Eddie Ishac.

The meeting was called to order at 3:10 p.m. by Ike Wood, Committee Chair.

Each course director present, in discussion with the group, determined the fundamental subject matter that should be included in the Scientific Foundations of Medicine:

Histology

- Organelles and basic processes
- Connective tissue
- Epithelium and cell junctions
- Morphology of the neuron

Physiology

- Cell signaling
- Membrane transport
- Membrane potentials
- Action potentials
- Neuromuscular transmission
- Skeletal muscle
- Smooth muscle
- The autonomic nervous system

Immunology

- Introduction to cells and tissues—B cells and T cells
- Antigen recognition
- Innate and adaptive immunity
- Lymphocyte development
- Cell signaling—chemokines and cytokines
- Response to infection
- Hypersensitivity
- Principles of autoimmunity
- Principles of vaccination

Biochemistry

- Principles of biochemistry (amino acids, proteins, carbohydrates and fatty acids)
- Gene expression

- DNA damage
- Cytoskeleton
- Enzymes
- pH
- Water
- Bioenergetics

#### Anatomy and Embryology

- Basic embryology (through gastrulation)
- Basic vocabulary and orientation to the body

#### Microbiology

- Bacteria
- Viruses
- Fungi
- Parasites
- Antimicrobial therapy for each

#### Genetics

- The cell cycle
- Genetic basis of diseases
- Simple modes of inheritance (Mendelian vs. non-Mendelian)
- Genetic variations
- Tools of molecular genetics
- Introduction to clinical genetics
- Multifactorial basis of common diseases

The subcommittee reviewed the list of suggested topics presented by Dr. Grimes, but deferred to making a decision on content to be included in the Scientific Foundations Course until Dr. Grimes could be present. The same was decided in relationship to the Principles of Pharmacology and needing Dr. Ishac to be present.

Dr. Wood noted that the subcommittee will meet again on October 7, 2009 at 3:00 p.m. During that time, the subcommittee will review the basic content to be included from Pathology and Pharmacology and begin sequencing the topics in a logical order.

The meeting was adjourned at 4:30 p.m.

Respectfully submitted,  
Ike Wood, M.D., Committee Chair