



DIRECTOR'S NOTES

HIGHLIGHTS OF CMBD ACTIVITIES:

An ad hoc Osteoporosis Clinic Advisory Committee evaluated a business plan prepared by Dr. Sarah L. Morgan for the Osteoporosis Prevention and Treatment Clinic. The committee endorsed three resolutions to: 1) appoint Dr. Morgan as Medical Director; 2) establish a separate profit center for the clinic; and 3) establish a multidisciplinary clinic steering committee. We congratulate Dr. Morgan on her new, well-deserved, appointment as Clinic Director.

The CMBD has been funded for two more years as a Pilot Developmental University-Wide Research Center. The CMBD will use this funding to support pilot studies. Also, a Core Center grant entitled, "Metabolic Bone Disease Research Core Center", was submitted July 15, 1998.

Dr. Kenneth G. Saag has been recruited by Dr. Robert Kimberly into the Division of Clinical Immunology and Rheumatology. Dr. Saag has a prominent health services research program with a strong emphasis on osteoporosis.

CMBD members actively participated in the Alabama State Department of Public Health Osteoporosis Task Force Meeting designed to develop a statewide osteoporosis public health initiative on April 13, 1998, which is being finalized.

A Musculoskeletal Mechanics Laboratory was funded in part by a HSF-GEF grant submitted by Dr. Linda C. Lucas, Professor and Chair, Department of Biomedical Engineering. This important expanding research program is described below.

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MUSCULOSKELETAL MECHANICS LABORATORY

The CMBD and the Biomedical Implant Center (BIC) recently joined together to support the development of a Musculoskeletal Mechanics Laboratory within the Department of Biomedical Engineering at UAB. This state-of-the-art core laboratory will serve as a catalyst to obtain external funding related to the study of the mechanical response of normal, diseased, traumatized, and reconstructed musculoskeletal systems. The Laboratory has been strategically designed to complement and enhance the overall goals of the CMBD and the BIC.

- Biomechanical Response of the Human Pelvis to Side Impact (CDC through UAB-ICRC). R. Fine, K. Mann, J. Alonso;
- Evaluation of Bone Cement Formulations (NSF-EPSCOR). L. Lucas, J. Mays, J. Lemons, K. Mann;
- Finite Element Models of Trabecular Degeneration and Regeneration (CMBD Seed Grant) A. Eberhardt, D. Feldman; and
- Evaluation of a FGF-1 Fibrin Matrix for Burn Healing (CDC). D. Feldman, A. Dimmick, A.

The Musculoskeletal Mechanics Laboratory provides an enhanced research environment for the multi-disciplinary teams from the CMBD and the BIC. Major capital equipment in this core laboratory includes two high force mechanical testing systems (10 kN load capacity), an impact drop tower, a low-force mechanical testing system, and six-station friction and wear test machine. These final two components were made possible from a recent grant from the Health Services Foundation at UAB. A large complement of data acquisition, strain, position, and force measurement systems are also available.

Current research projects utilizing the Musculoskeletal Mechanics Laboratory include:

- Interface Failure in Total Joint Replacements (NIH). K. Mann, J. Cuckler;

Eberhardt.

Drs. Mann and Eberhardt coordinate activities in this laboratory and look forward to continued collaborations with others in the UAB community. The laboratory is located in 271 Hoehn Engineering Building.

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