Merck Serono and BSPED research award winners 2008

Merck Serono BSPED Award (£25,000)
Drake AJ, Edinburgh

Epigenetic modifications in the early life programming of disease

Low birthweight babies are at increased risk of diabetes and heart disease in adulthood. This has led to the concept of 'fetal programming', suggesting a factor acting during early life can affect development and predispose to later disease. An unbalanced maternal diet in pregnancy can permanently alter the control of genes which are associated with an increased risk of heart disease. In this project we wish to increase our knowledge of how exposure to an unbalanced diet in the womb can act to alter the control of these genes and affect later disease risk.

BSPED Research Award (£15,000)
Gregory JW, Cardiff

Development of a novel *ex vivo* femoral slice model for the study of osteonecrosis and other bone diseases

Since survival rates from acute lymphoblastic leukaemia (ALL) are very high, there is increasing interest in the long-term quality of life. Osteonecrosis is a devastating bone disorder which is currently a complication of the treatment of childhood ALL. We presently use cultures of a single bone cell type to try to determine the causes of osteonecrosis. We would, however, like to develop novel methods of maintaining bone slices in culture, to conduct studies on the causes of osteonecrosis under conditions similar to that in the body, where interactions between different bone cell types and surrounding tissue are also possible.

BSPED Research Award (£15,000)
Wong SC, Glasgow

The Effects Of Chronic Inflammatory Disease On Growth And Skeletal Development In The Socs2 Deficient Mouse

Children with chronic inflammatory diseases are living longer thanks to recent medical advances. However, growth and bone health can often be affected in these children to such an extent that the growing child's quality of life is hindered. Our research group based at the Roslin & Glasgow has been at the forefront of understanding how these problems affect children. Studying the underlying problem becomes especially important as new forms of therapy become available. Our research group consists of doctors and scientists who are working together at developing new ways of studying how chronic inflammation affects growth and the skeleton.

S. F. Ahmed
16.12.08