ECTS

36TH EUROPEAN SYMPOSIUM ON CALCIFIED TISSUES
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PRESS RELEASE

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DISCOVERY OF FAULTY GENES COULD REVEAL RISK OF BONE DISEASE

The discovery of faulty genes by Edinburgh researchers could help people with Paget's disease, a painful bone condition. Dr Omar Albagha has found three genes associated with the disease which, if detected early enough in people, could hasten diagnosis and treatment.

Paget's disease affects around three percent of the population over 55 years old in the UK. The carefully regulated system of renewing bone is disrupted. New bone cells (osteoblasts) increase dramatically, are overactive and enlarged causing weak, mis-shapen bones leading to pain deformity, osteoarthritis, fractures and even deafness.

Genetic factors are important but until now, only one gene is known to be linked to one third of the people with Paget's disease. The research team in the rheumatology section at Edinburgh University wanted to find other gene abnormalities that might predispose people to the disease.

Speaking at the European Symposium on Calcified Tissue in Vienna today (26 May), Dr Albagha said, "This discovery is important so that we can better understand the development of Paget's disease and identify those at risk."

There were 750 patients with Paget's disease in the study. They did not have the known faulty gene, but 104 of them had a family history of the disease. One thousand healthy people were in the control group. In the analysis of more than 300,000 gene variations covering all known human genes, three genes were found to be associated with Paget's disease. Further research is now underway to determine how these faults cause the disease.

The damage caused by Paget's disease is irreversible, but it can be treated. Paracetamol and non-steroidal anti-inflammatory drugs (NSAIDS) relieve the pain, and bisphosphonates help slow down the excessive bone turnover.

"Now we have identified the faulty genes, we will be able to develop ways to screen people ideally in their 30s with a family history of the disease. If necessary, we give them treatment early before the damage is done," said Dr Albagha.

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For further information contact Elaine Snell, ECTS Press Officer
+44 (0)20 7738 0424, mobile +44 (0)7973 953 794 or
elaine@snell-communications.net

Note to Editors

Dr Omar Albagha, Lecturer, Rheumatic Disease Unit, University of Edinburgh
http://www.rheum.med.ed.ac.uk/research/

Calcified tissues are central to a healthy skeleton and to bone disorders, such as osteoporosis, back pain and fractures that make life a misery for countless people. Children, too, can inherit some forms of bone diseases causing bone pain, shortness and deformed limbs.

The mission of **The European Calcified Tissue Society** is to promote excellence in research into the field of calcified tissues within Europe, and to ensure the findings are disseminated to benefit patients with bone disease. www.ectsoc.org

Over 3000 delegates will be attending to hear the latest research and clinical updates at the **36th European Symposium on Calcified Tissues** in Vienna, 23-27 May 2009
http://www.ectsoc.org/vienna2009/