

## **PRESS RELEASE**

### **OSTA BIOTECHNOLOGIES ANNOUNCES PROMISING INTERIM RESULTS FROM ITS SECOND CLINICAL STUDY ON THE DEVELOPMENT OF A NOVEL BLOOD TEST FOR OSTEOPOROSIS**

MONTREAL, QC – November 4, 2005 - Osta Biotechnologies Inc. today announced the interim results of its second clinical study for the development of a novel blood test for osteoporosis. These interim results confirm the findings of the first clinical study which was conducted at the Sir Mortimer B. Davis – Jewish General Hospital (JGH) on 19 male osteoporotic subjects earlier and had shown a significant association between a certain variation in the Parathyroid Hormone Related Peptide (PTHrP) gene and the age matched Bone Mineral Density (BMD Z score) values at hip or spine. The second study involving a total of 80 subjects was undertaken to not only confirm the findings of the first study in osteoporotic males, but also to look at the trends in healthy males and pre-menopausal healthy and osteoporotic females.

This second clinical study on healthy and osteoporotic males and pre-menopausal healthy and osteoporotic females is being conducted at the JGH, a McGill University teaching hospital based in Montreal. A total of 44 male and female subjects have been recruited to date. The primary objective of this study was to study the association of the frequency of the 252 bp allele in a certain portion of the PTHrP gene called the Variable Number of Tandem Repeat (VNTR) region with the BMD Z scores at the hip or spine.

Dr. Andrew Karaplis, Osta's President & Chief Scientific Officer commented "We are very excited about these findings. We have demonstrated earlier that PTHrP plays a critical role in bone formation in mice. The current findings provide further evidence that PTHrP may play a vital role in bone formation in humans and has the potential to be one of the candidate genes in serving as a prognostic indicator of the risk for developing low bone mass and osteoporosis."

Dr. Ajay Gupta, Chairman and CEO of Osta Biotechnologies said: "These results not only confirm the finding of our first clinical study, they are also significant in our opinion and support our decision to continue the on-going clinical studies in a larger number of subjects in collaborations with two prominent academic and clinical institutions in Europe and in North America."

The company expects to complete these studies shortly and pending a successful outcome, it plans to enter into co-development agreements with large diagnostic companies world-wide, to complete all the clinical studies required for regulatory approvals for marketing this very promising and novel blood test.

Such a prognostic test for osteoporosis has the potential to revolutionize the early prognosis and prophylactic treatment of this widespread disease, could help improve the quality of life of millions of sufferers world-wide and also potentially save enormous direct medical costs associated with the treatment of this devastating disease.

#### **The results**

The association between the frequency of the 252 bp allele in the VNTR region of the PTHrP

gene was studied as a function of Bone Mineral Density (BMD) in at least one of the skeletal sites: hip or spine. Age matched BMD Z scores were used for the purpose of data analysis.

A statistically significant trend was seen in males in the second study as well as the combined first and second study. The first clinical study conducted at the JGH on 19 male osteoporotic subjects had shown earlier that 16 out of 19 (84%) male subjects had at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene. However, there were no healthy control males in the first study and it was not possible to calculate the P values in order to evaluate the statistical significance of a potential association between the frequency of the 252 bp allele with the BMD Z scores. In the second study, 1 out of 6 (17%) healthy males were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene, whereas, 3 out of 5 (60%) male osteoporotics were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene. In the combined first and second study on males, 1 out of 6 (17%) healthy males were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene, whereas, 19 out of 24 (79%) male osteoporotics were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene. The results of the second study confirm the findings of the first study, specifically the fact that osteoporotic males tend to have a higher frequency of the 252 bp allele in their PTHrP VNTR compared to healthy males.

The observation in the female group was found to be almost the reverse of the results in the male group. An opposite but significant trend was observed based on the fact that osteoporotic females tended to have a lower frequency of the 252 bp allele of the PTHrP VNTR as compared to healthy females. In the second study, 12 out of 19 (63%) healthy females were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene, whereas, only 4 out of 14 (28%) osteoporotic females were found to have at least one copy of the 252 bp allele in the VNTR region of their PTHrP gene. The reasons for this observation are not obvious at this stage, but could be due to phenomena such as sexual dimorphism that has been observed previously with a number of other proteins and hormones such as estrogen, testosterone etc.

***Osta Biotechnologies Inc.***

Osta is a biopharmaceutical company listed on the TSX Venture Exchange (TSXV: OBI) dedicated to developing novel diagnostics and therapeutics for the aging population particularly in the areas of Osteoporosis, Osteoarthritis and Alzheimer's disease.

The TSX Venture Exchange does not accept responsibility for the adequacy or accuracy of this release.

*Certain information in this press release is forward-looking and is subject to numerous risks and uncertainties. By their nature, such forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those contemplated by the forward-looking statements. These risks include actions of Osta's competitors, and those inherent in scientific research and development.*

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