Conclusion This method for cMSC isolation is simple and straightforward and could be easily followed by a researcher without previous experience

[gw22-e0580] **ISOLATION OF CANINE BONE MARROW MESENCHYMAL STEM CELLS BY A NOVEL METHOD**

Cheng Jun, Nong Yaoming, Wei Lu, Zhang Zhihui, Qing Yao, Zhang Changhai, Song Zhiyuan *Southwest Hospital, Houston, Texas, USA*

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Aim To isolate canine mesenchymal stem cells (cMSCs) from bone marrow using a novel method in which the medium is changed frequently during the initial phase of culturing and the duration of trypsinisation is diminished over time.

Methods Bone marrow was collected from femurs and tibias of 6 adult mongrel canines of both sexes under anaesthesia. Then, we demonstrated that freshly isolated cMSCs could be induced to differentiate into osteoblastic, adipocytic and chondrocytic lineages in appropriate medium and had good proliferation potential.

Results Immunophenotypes of cMSCs were analysed by fluorescence-activated cell sorting and immunofluorescence staining, and results revealed that cMSCs were positive for CD29 and CD44 but negative for CD34 and CD45. cMSCs were easily transduced with a lentiviral vector encoding an enhanced green fluorescence protein gene, and they stably expressed the transgene over the long term.