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(54) Title: CONTROLLED ORIFICE SAMPLING NEEDLE

(57) Abstract: A bone marrow sampling device is provided, including an outer cannula having a sidewall with a plurality of openings and a distal tissue penetrating tip. An inner cannula is positioned within the outer cannula, and includes a sidewall with at least one opening. Selective relative movement of the inner cannula and the outer cannula enables the device to be configured in multiple bone marrow sampling modes in which the at least one opening in the sidewall of the inner cannula is aligned with different openings in the sidewall of the outer cannula such that bone marrow can be drawn into the inner lumen of the inner cannula from different radial and longitudinal positions external to the sidewall of the outer cannula without the need to reposition the outer cannula.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(7) : A61B 10/00
 US CL : 600/567
 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
 Minimum documentation searched (classification system followed by classification symbols)
 U.S. : 600/567, 566

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	Us 20040249306 A1 (Islam, Abul Bashar Mohammed Anwarul) 9, December 2004 (9.12.2004), Entire reference	1-18
Y, P	US 6,712,775 B2 (Krueger et al.) 4 May 2004 (04.05.2004), cloumn 3, lines 12-32	5, 9, 11-16
X	US 20020193705 A1 (Burbank et al.) 19 December 2002 (19.12.2002) figures 7-8	1,18
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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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