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**Shabaz et al.**

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(54) **BIOPSY DEVICE WITH APERTURE ORIENTATION AND IMPROVED TIP**

USPC ..... 600/652, 564, 570, 566, 567; 606/167, 606/185

See application file for complete search history.

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(51) **Int. Cl.**

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(57) **ABSTRACT**

(52) **U.S. Cl.**

CPC ..... **A61B 10/0275** (2013.01); **A61B 10/0283** (2013.01); **A61B 17/32002** (2013.01); **A61B 17/32053** (2013.01); **A61B 17/3417** (2013.01); **A61B 2010/0208** (2013.01); **A61B 2010/0225** (2013.01); **A61B 2017/00207** (2013.01); **A61B 2017/00473** (2013.01); **A61B 2017/2911** (2013.01); **A61B 2017/2925** (2013.01); **A61B 2017/3405** (2013.01)

The invention is directed to a system and device for separating and collecting a tissue specimen from a target site within a patient. The device includes a probe component which is releasably secured to the driver component. The probe component has an elongated tubular section, a penetrating distal tip and a tissue receiving aperture in the distal end of the tubular section proximal to the distal tip, and a tissue cutting member which is slidably disposed within the probe member to cut a tissue specimen drawn into the interior of the device through the aperture by applying a vacuum to the inner lumen of the tissue cutting member. The driver has drive members for operating the elements of the probe component. The tissue penetrating distal tip preferably has a triple concave curvature shape with three curved cutting edges leading to a sharp distal point.

(58) **Field of Classification Search**

CPC ..... **A61B 10/0275**; **A61B 10/0283**; **A61B 17/32002**; **A61B 17/32053**; **A61B 17/3417**; **A61B 2010/0208**; **A61B 2010/0225**; **A61B 2010/00207**; **A61B 2010/00473**; **A61B 2010/2911**; **A61B 2010/2925**; **A61B 2010/3405**

**9 Claims, 14 Drawing Sheets**

