

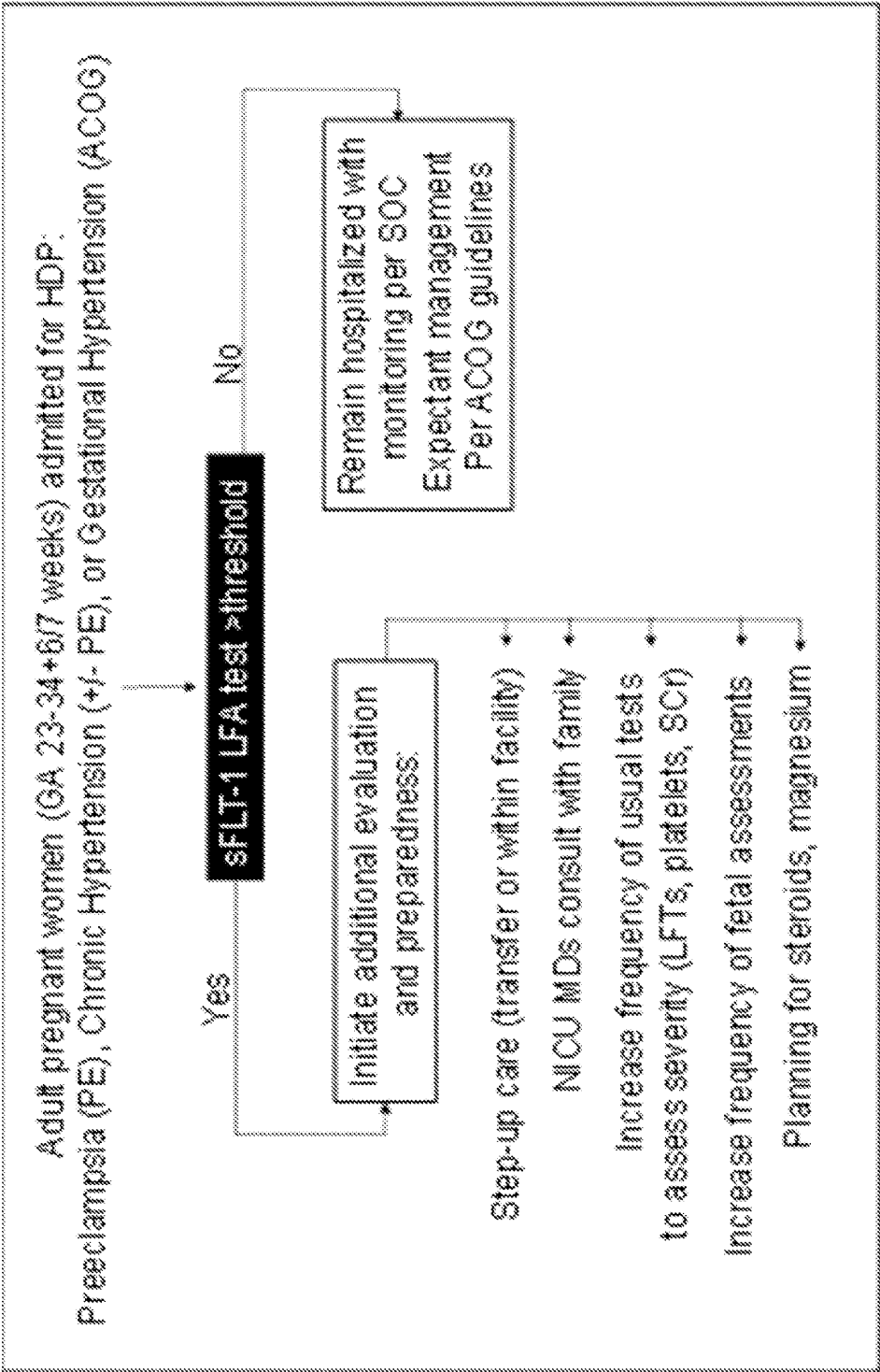


FIG. 1

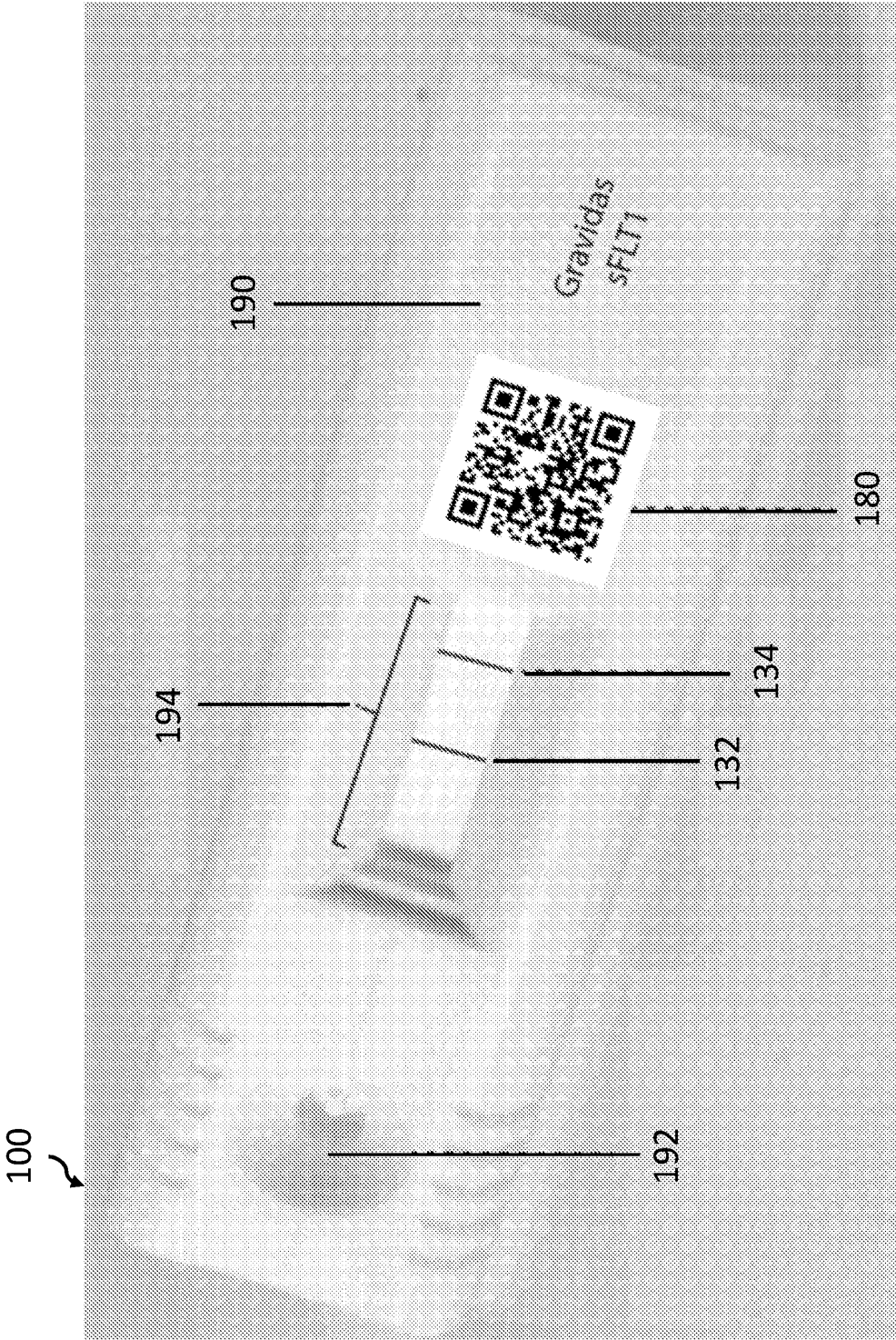


FIG. 2

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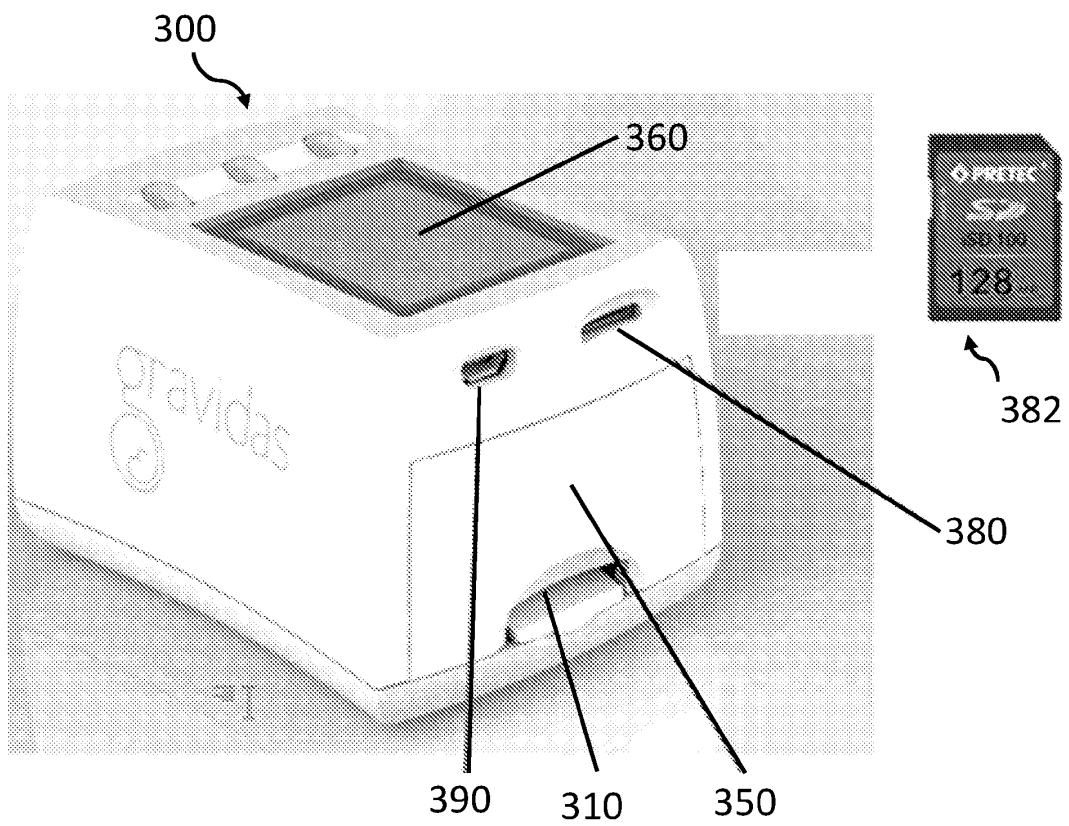


FIG. 3

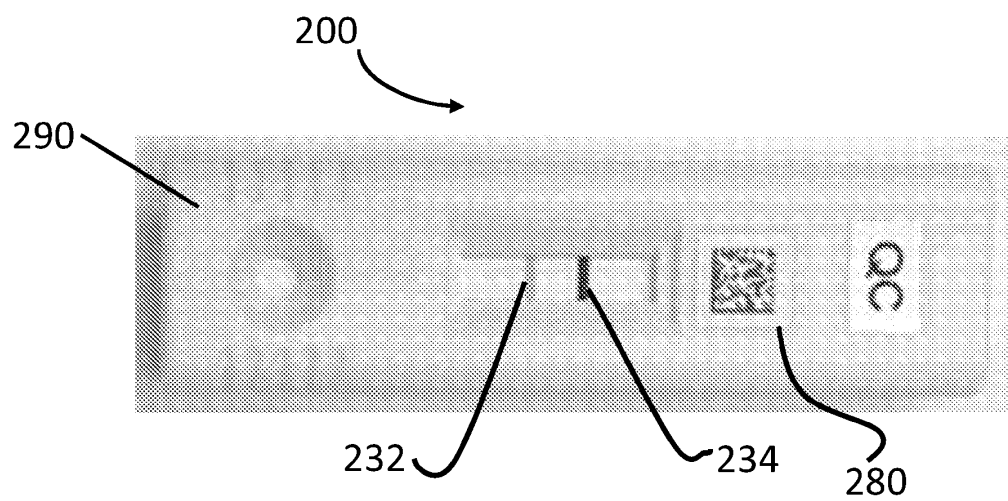


FIG. 4

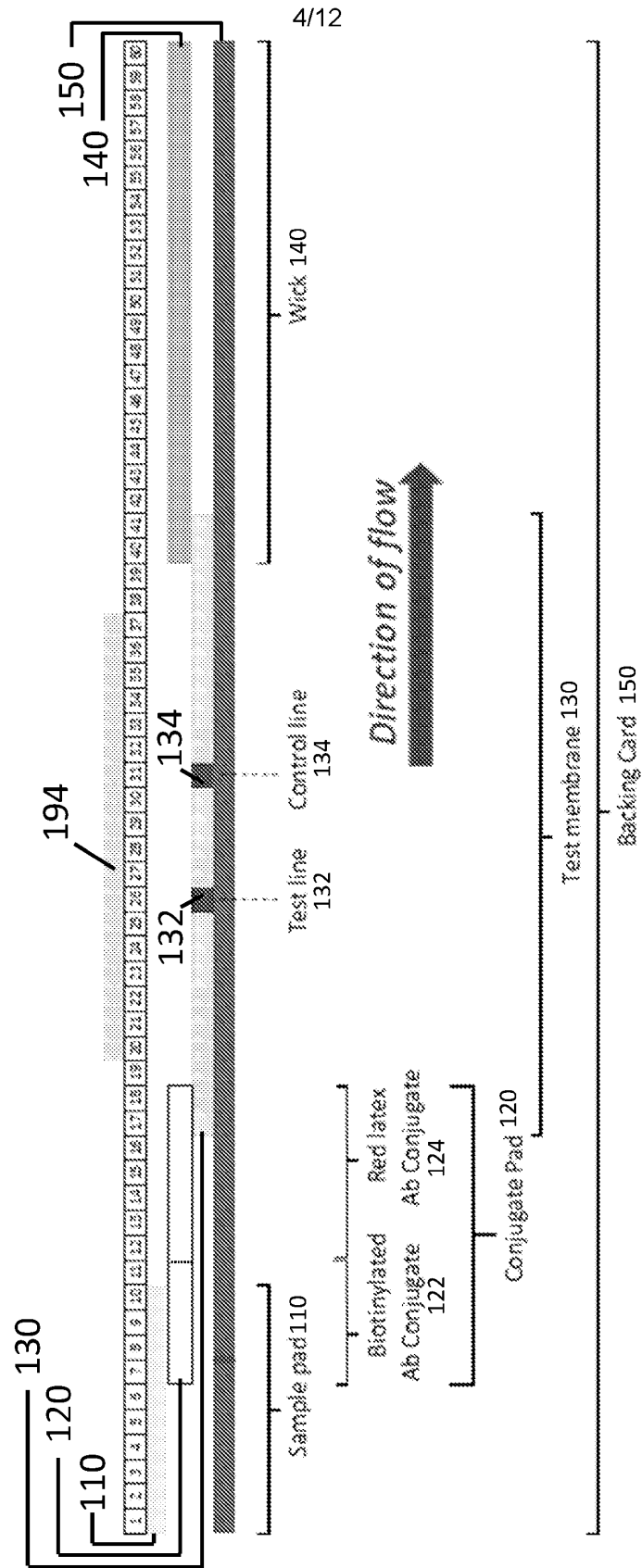
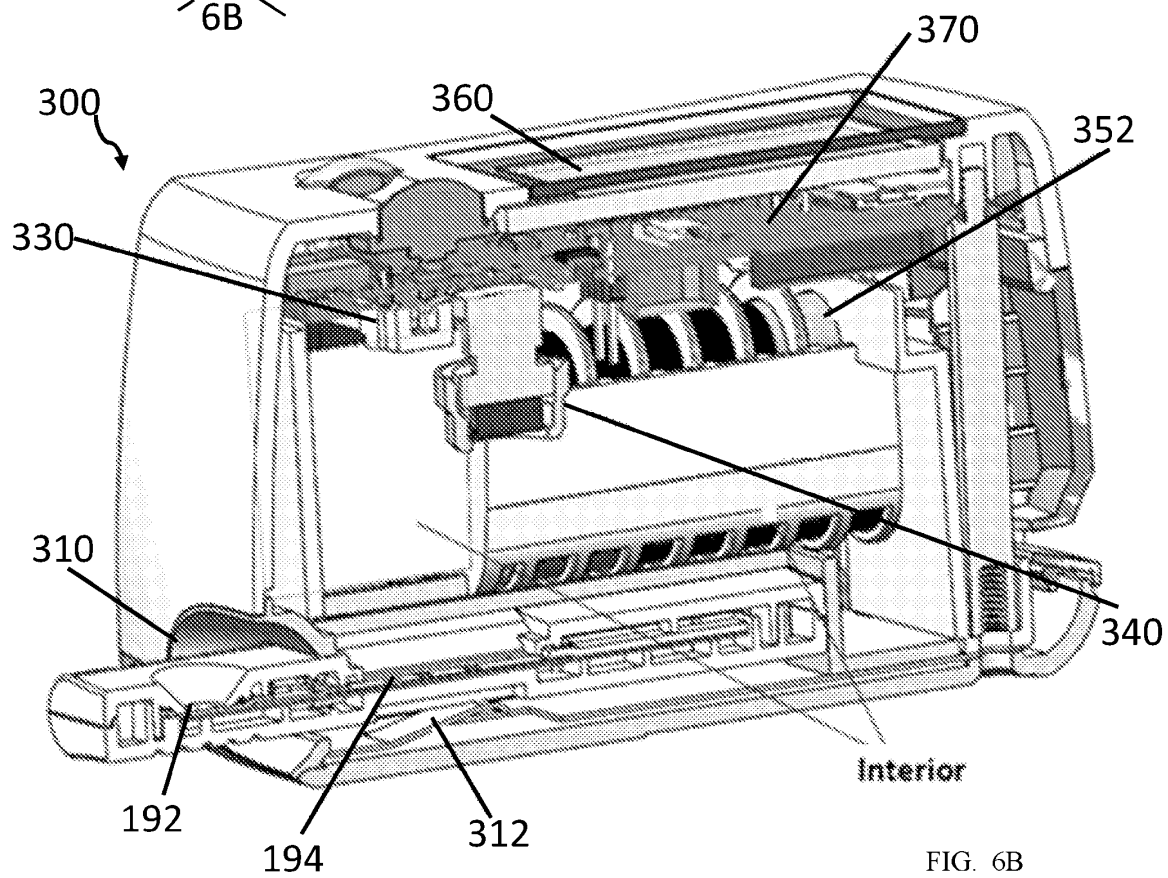
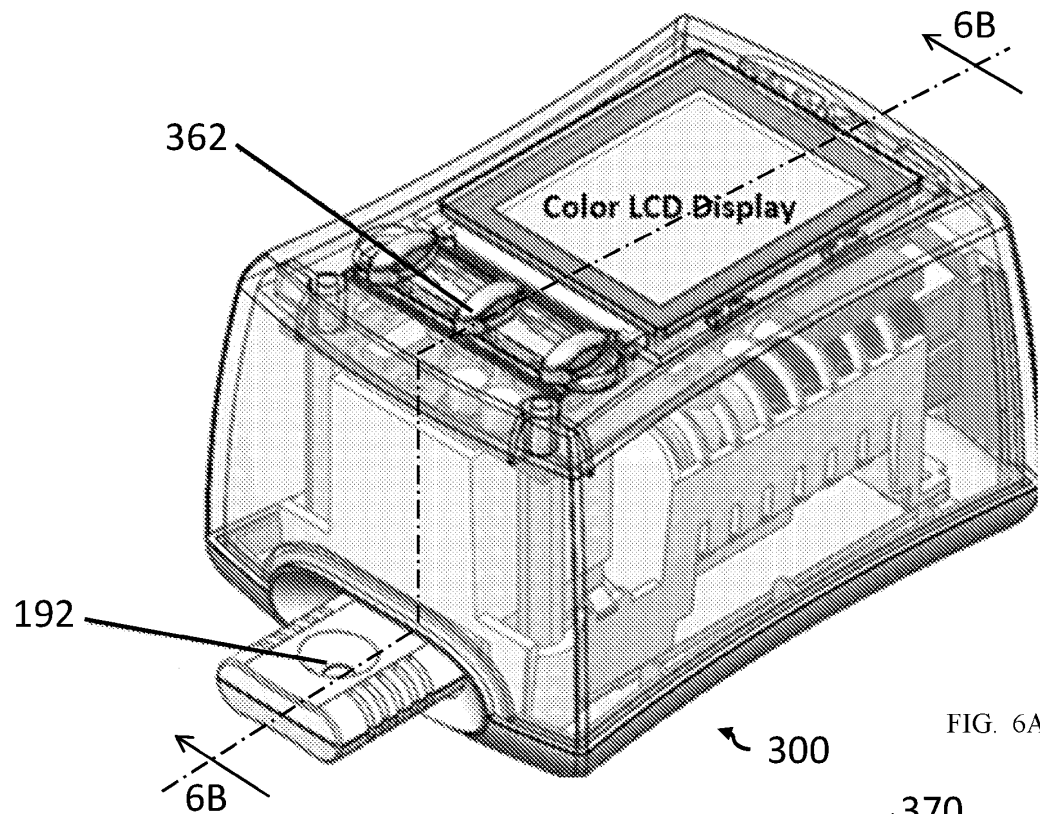


FIG. 5

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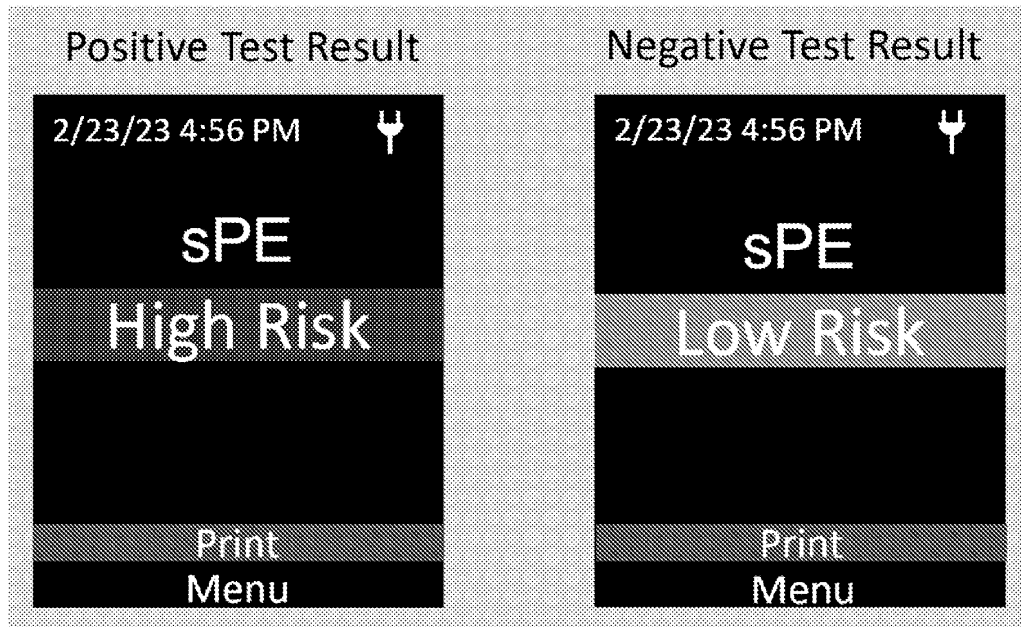


FIG. 7

Regions of interest (ROI) for quantifying background
(20 px width each)

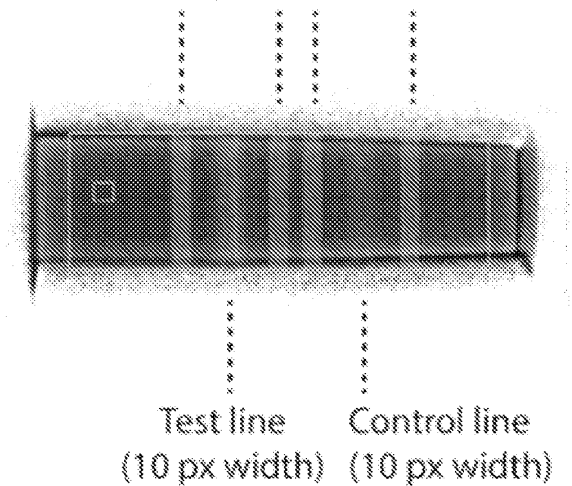


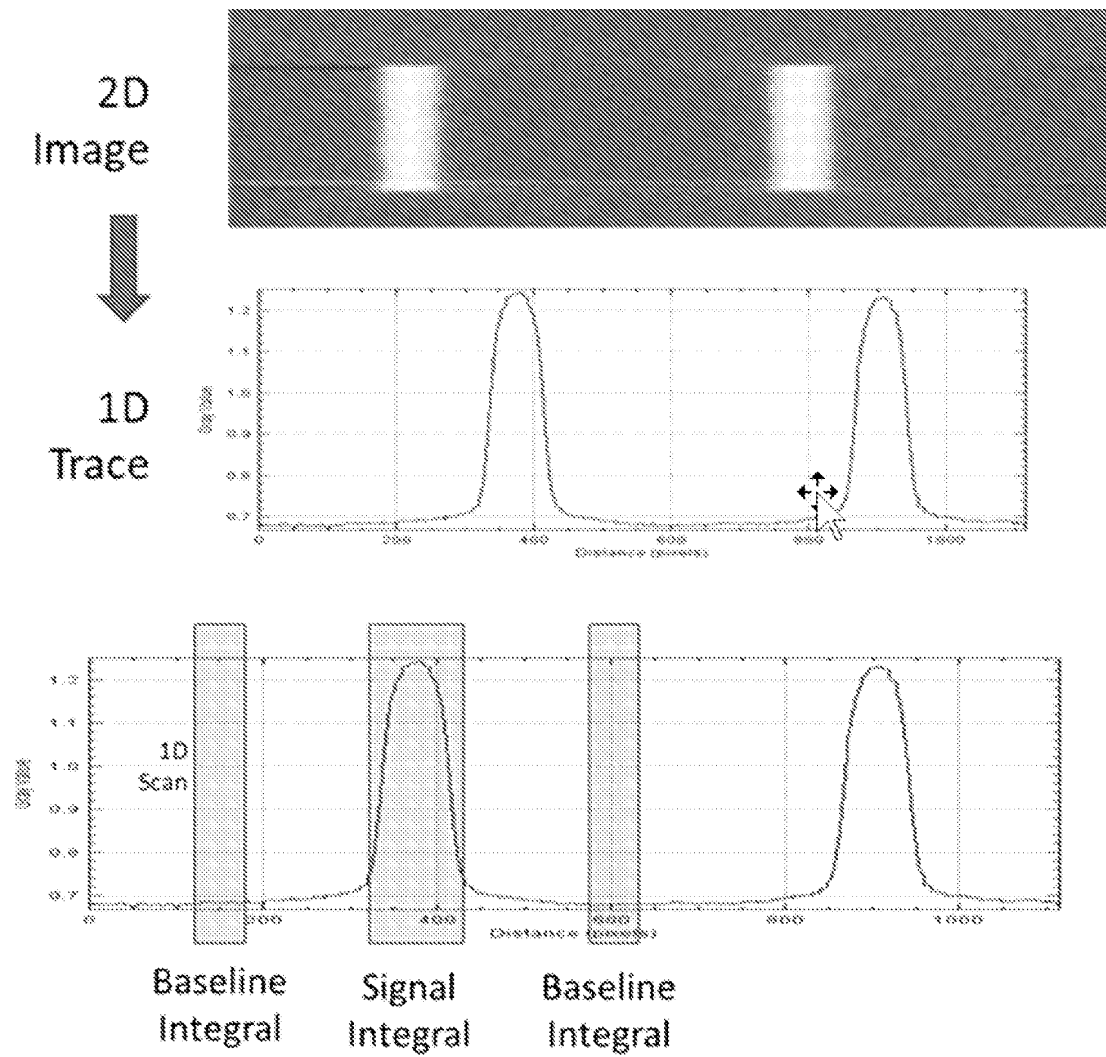
Image processed using green color channel
Peak search performed using KZ filter with 6 px window
Trace area height was 140 px (full width of membrane)

ROI settings for Mini DxR Reader (GUI screenshot)

Capture						Configure		ROI		Barcode		Image Capture		Camera							
Trace ROI Settings														Exposure Setting							
X		390		Width		400		ROI Signal Channel Selection		☐ Red		☒ Green		☐ Blue							
Y		150		Height		140		LED		☒ White		☐ UV		☐ Barcode							
Control ROI Settings														Analysis Mode							
ROI		10		ROI Offset		130		☒ Absorbance		☐ Fluorescence		Image Window Settings									
BL		20		BL Offset		50		X		0		Y		230							
Search ROI														Width		1280		Height		400	
Peak ROI Settings														Apply							
Name		AC1		ROI Offset		BL		BL Offset		Search											
Test		10		130		20		47		20											

FIG. 8

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Final Signal = Avg. Testline Integral – Avg. Baseline Integral
or

$$\mu_{\text{signal}} = \mu_{\text{test}} - \mu_{\text{bl}}$$

FIG. 9

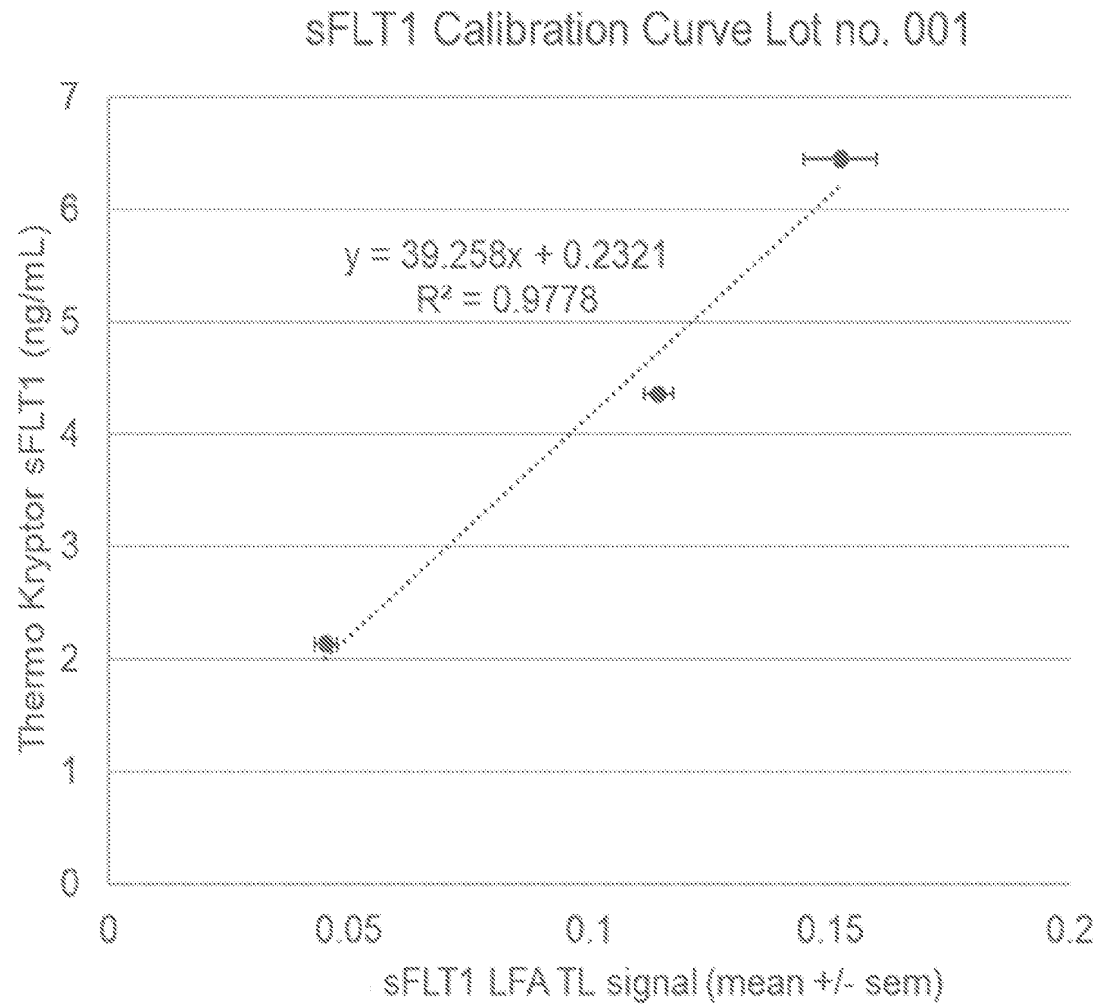


FIG. 10

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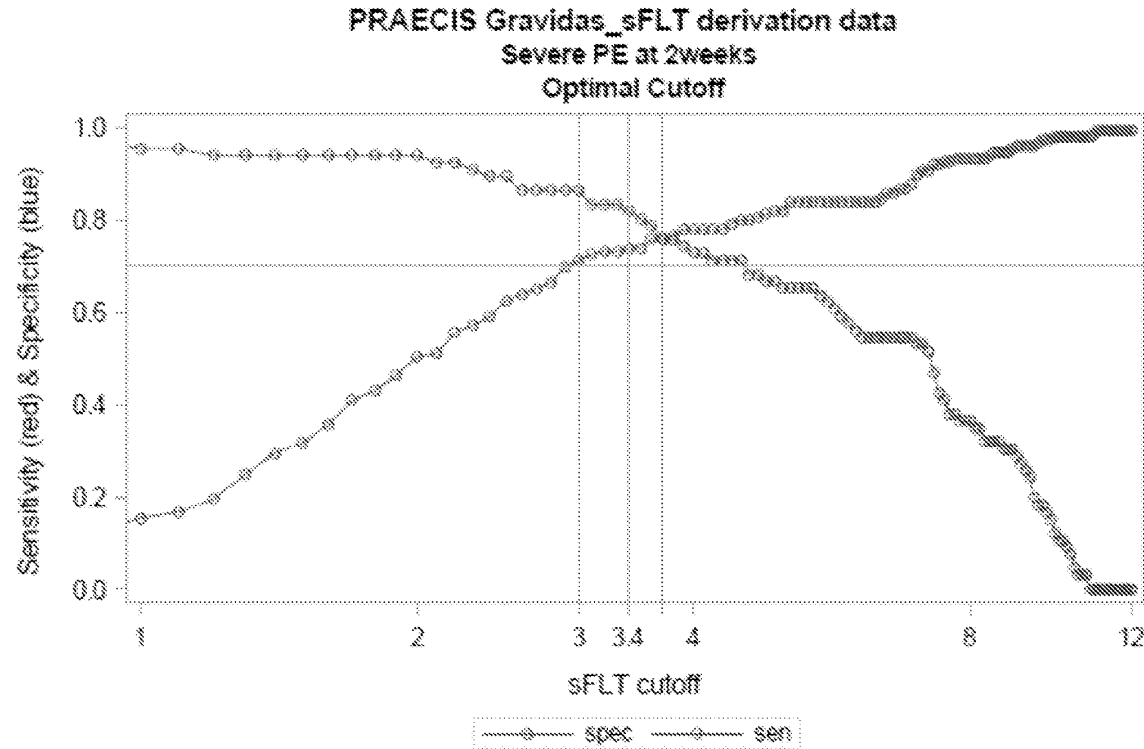


FIG. 11

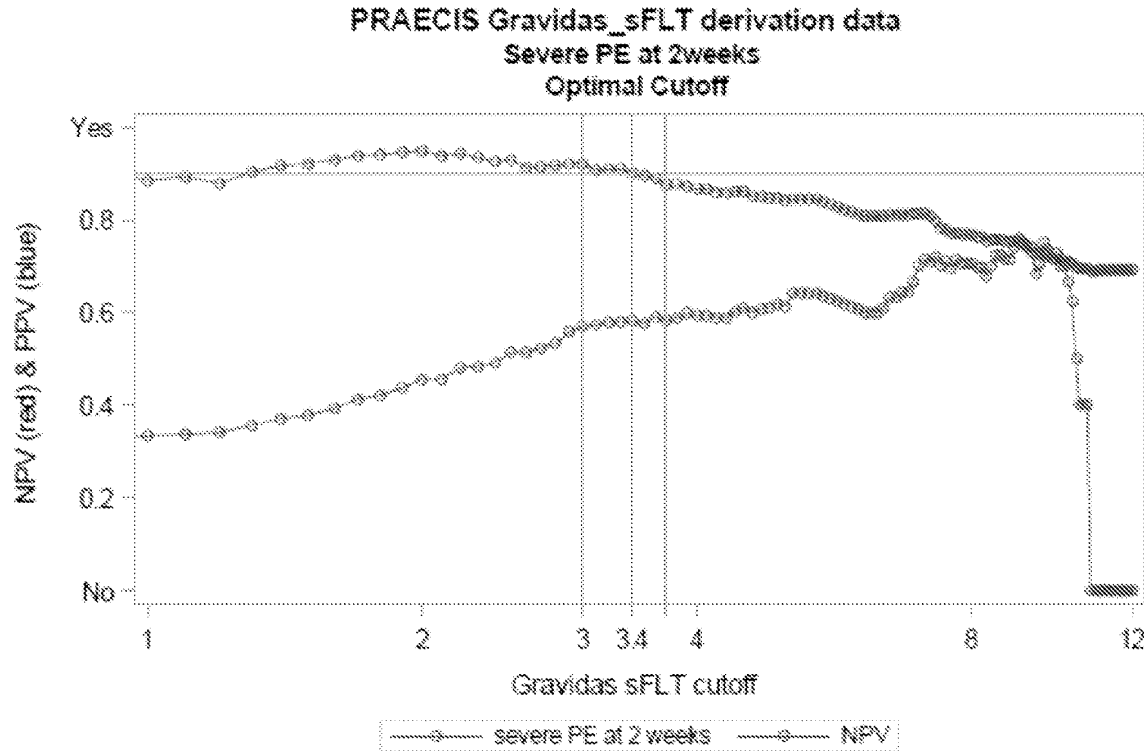


FIG. 12

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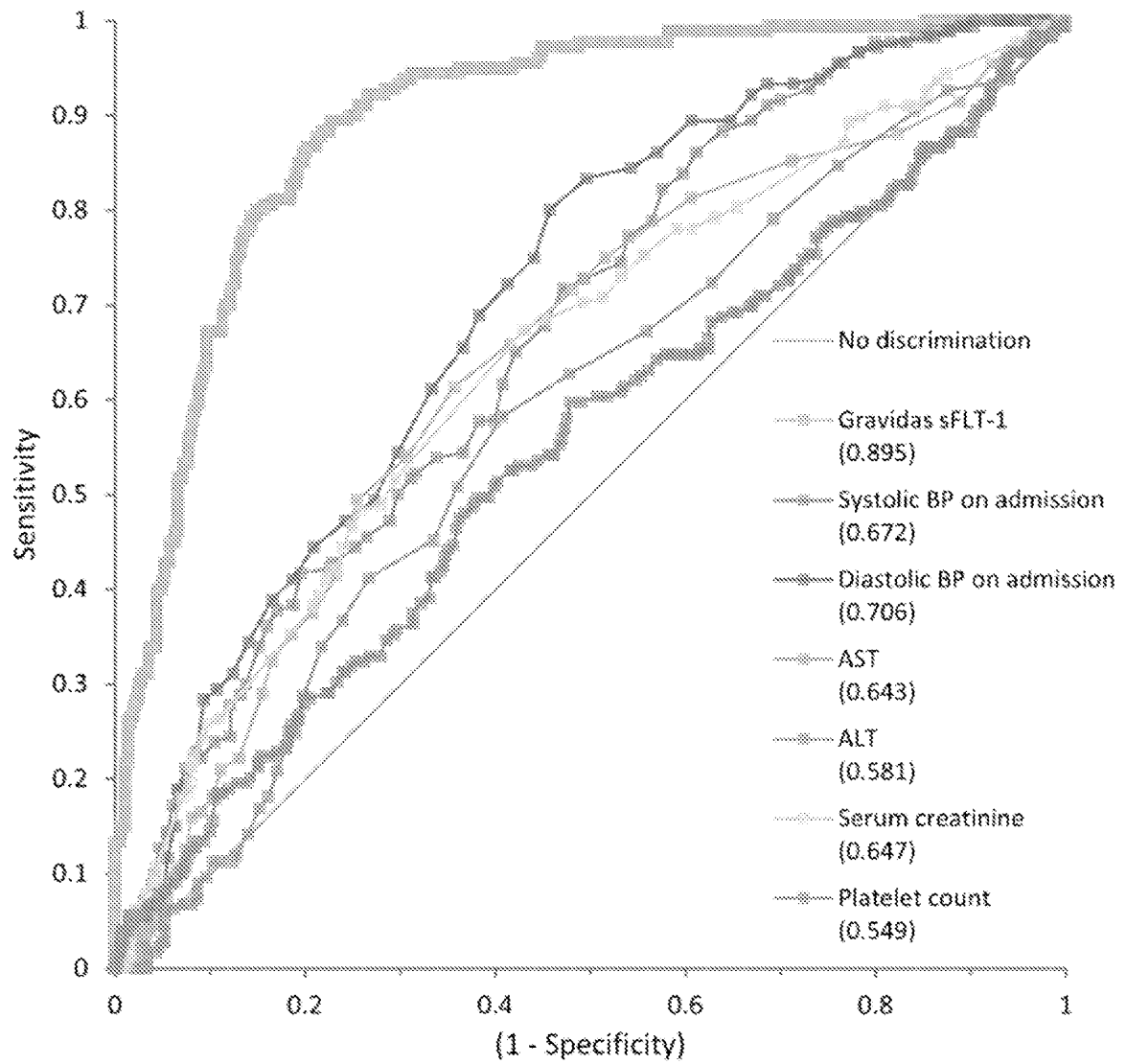


FIG. 13

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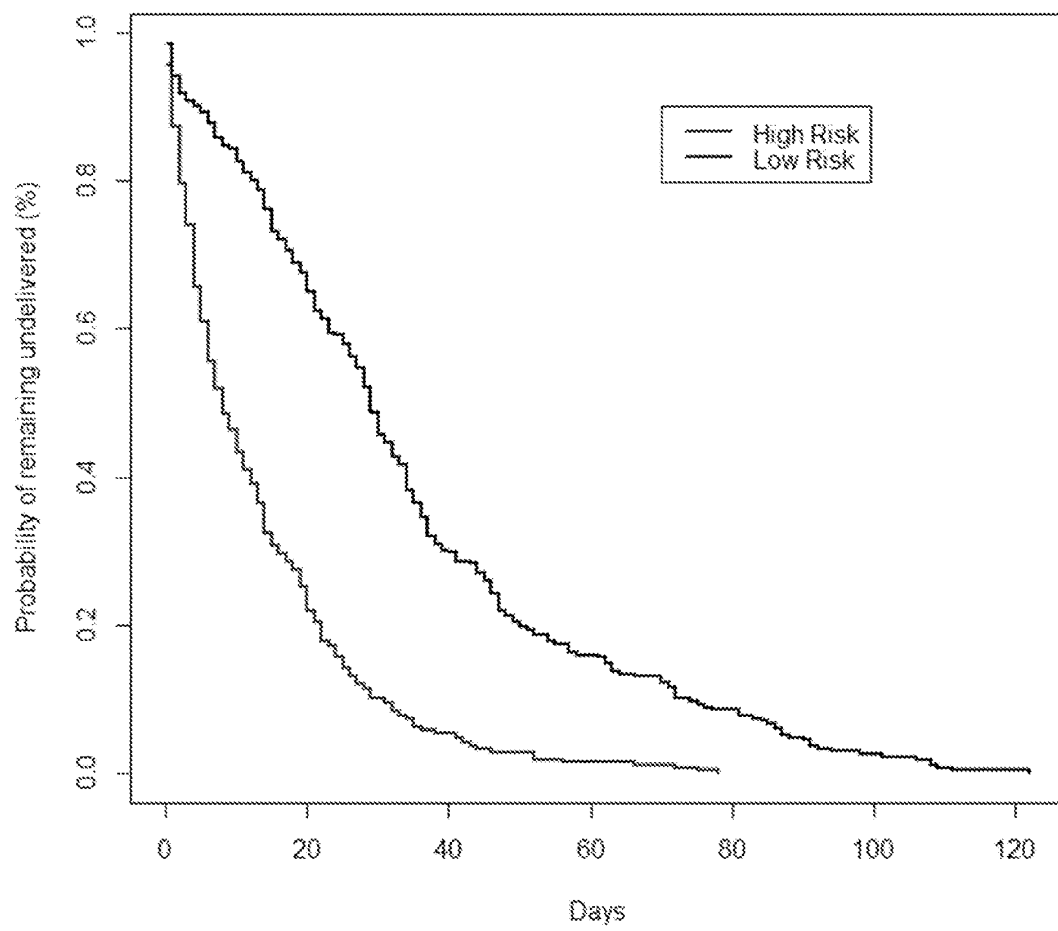


FIG. 14