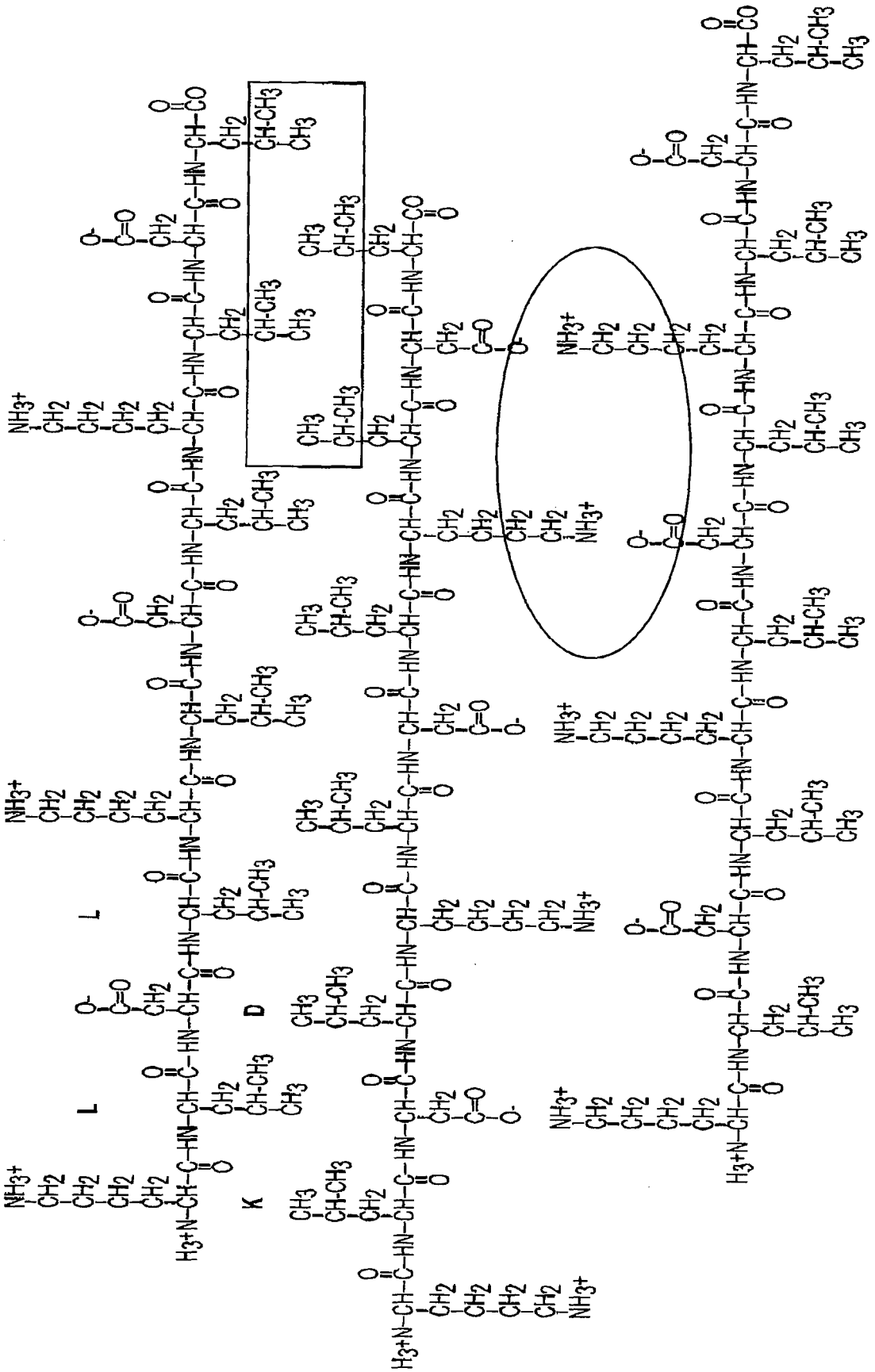


FIG. 1

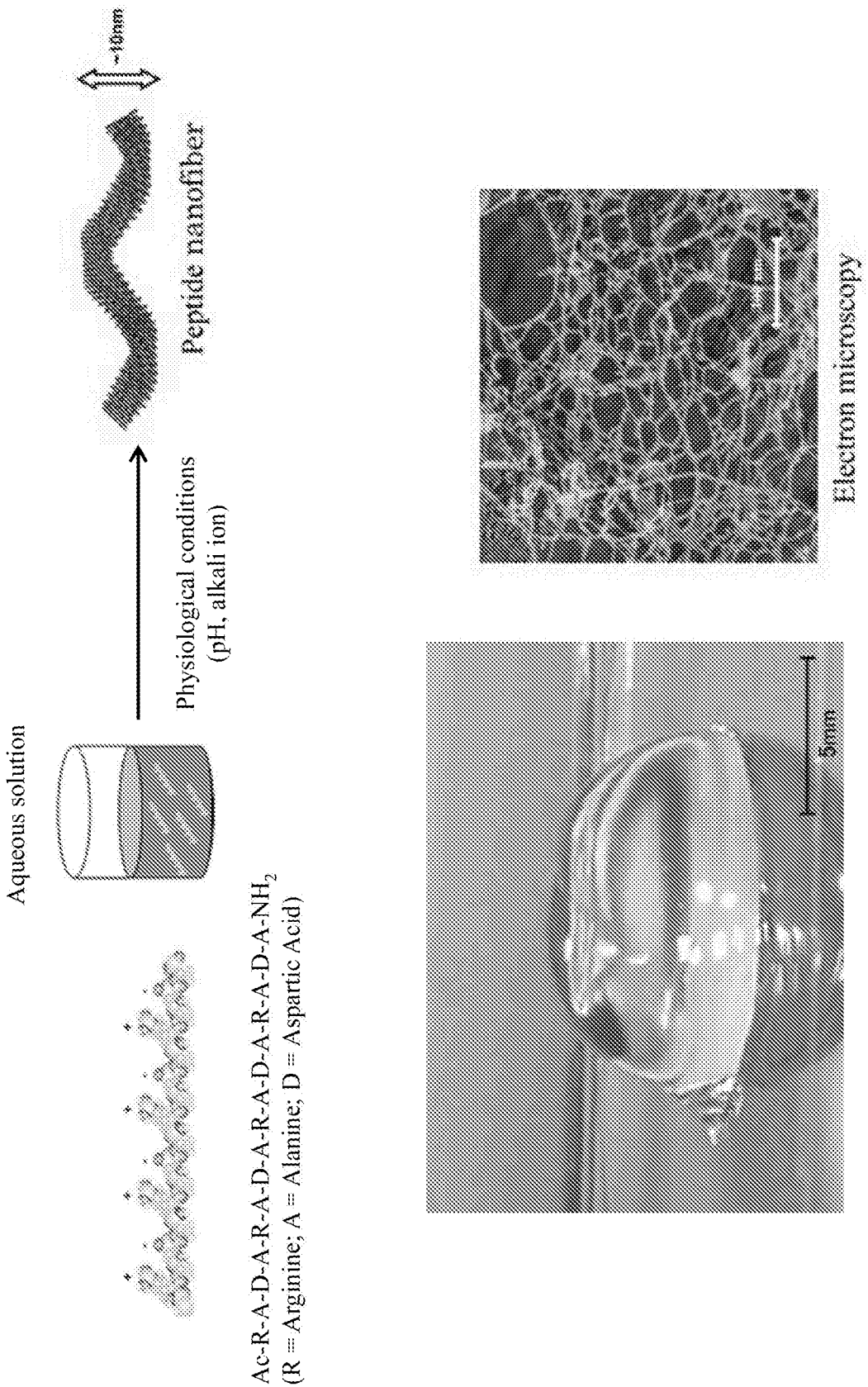

Aqueous solution
Physiological conditions
(pH, alkali ion)
~18nm
Peptide nanofiber
Ac-R-A-D-A-R-A-D-A-R-A-D-A-R-A-D-A-NH2
(R = Arginine; A = Alanine; D = Aspartic Acid)
Electron microscopy
5mm

FIG. 2

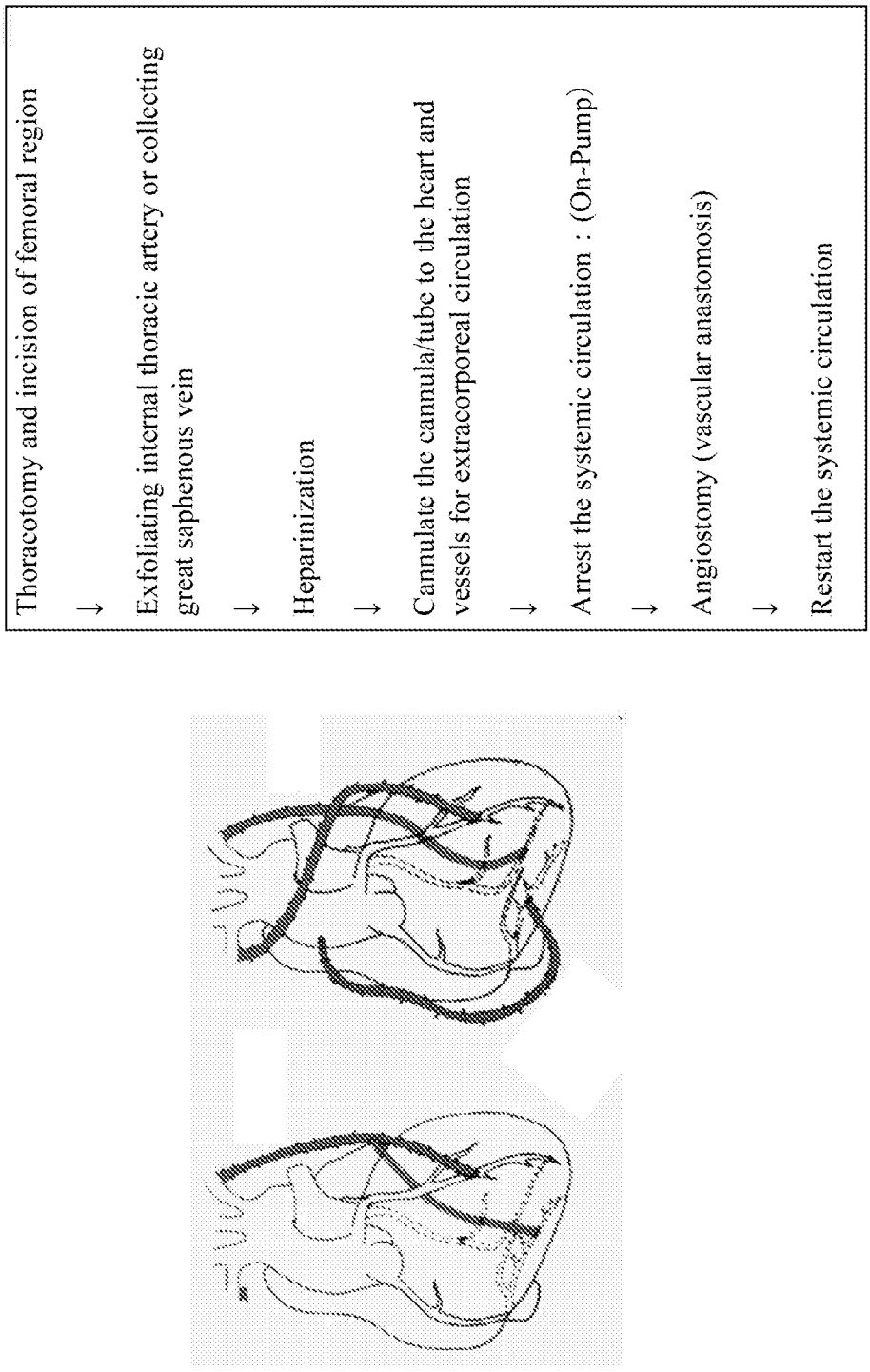

Thoracotomy and incision of femoral region
→
Exfoliating internal thoracic artery or collecting great saphenous vein
→
Heparinization
→
Cannulate the cannula/tube to the heart and vessels for extracorporeal circulation
→
Arrest the systemic circulation : (On-Pump)
→
Angiostomy (vascular anastomosis)
→
Restart the systemic circulation

FIG. 3

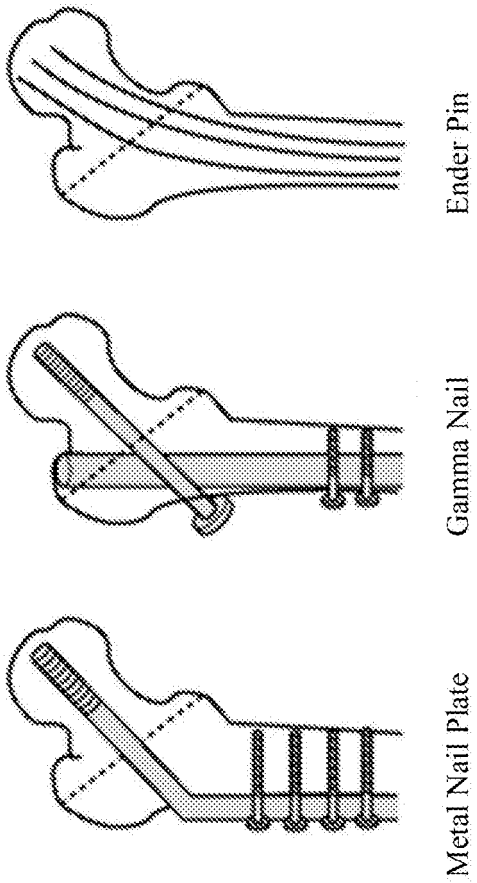


FIG. 4

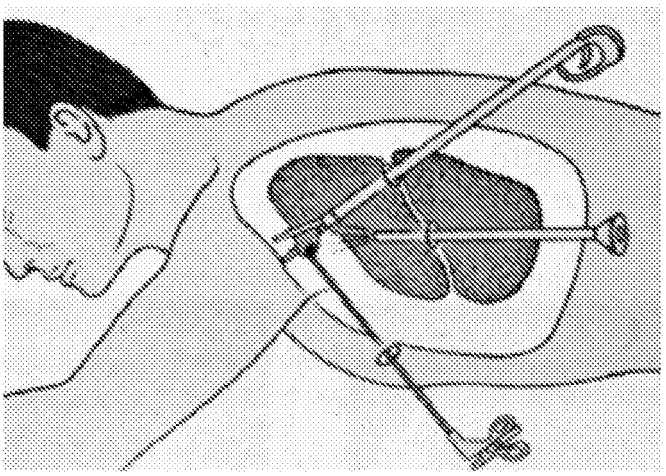


FIG. 5

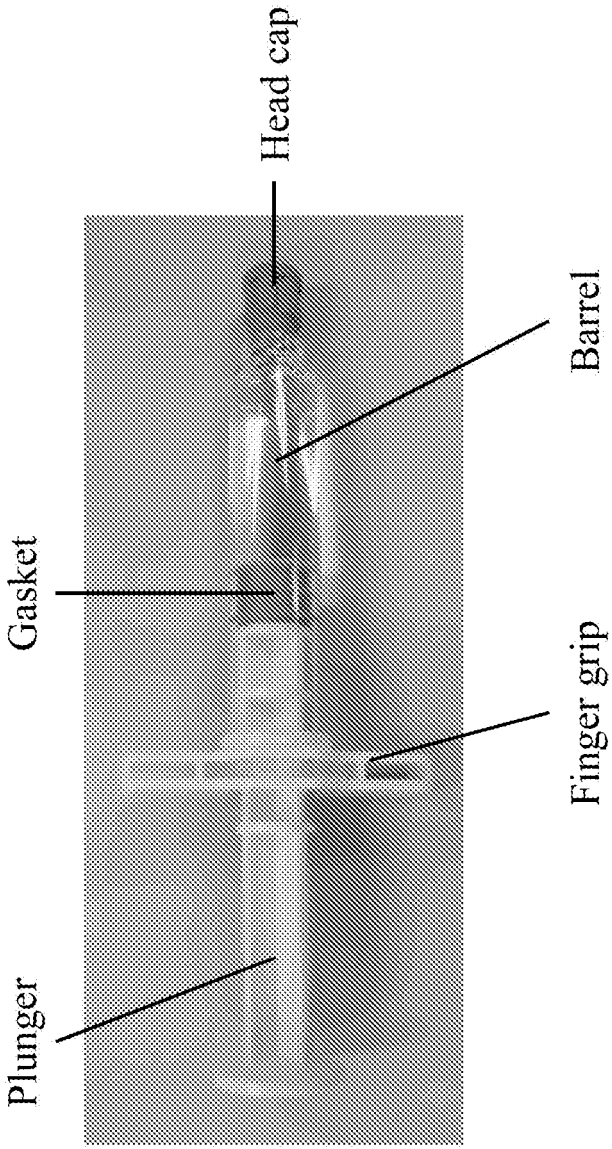


FIG. 6

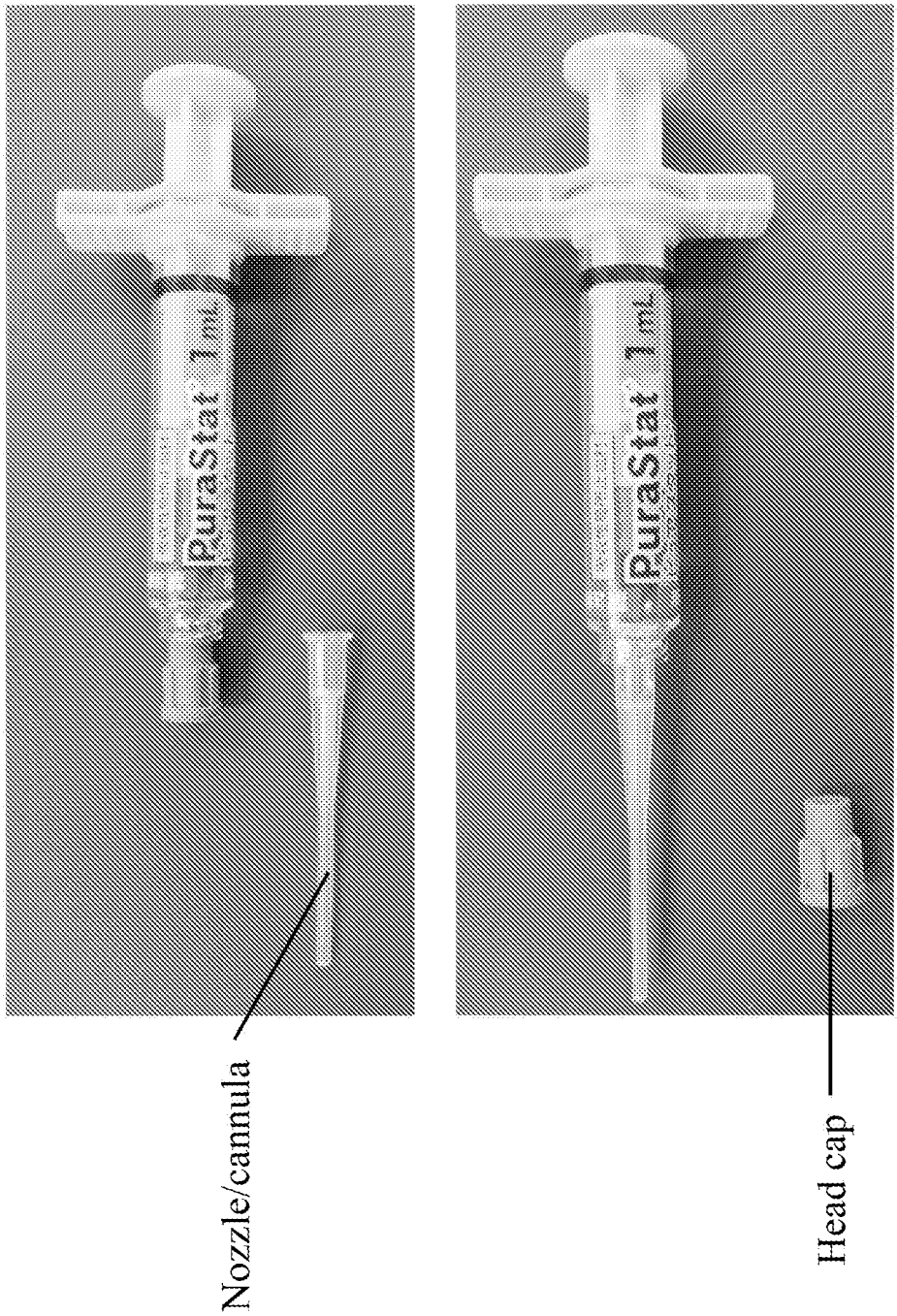
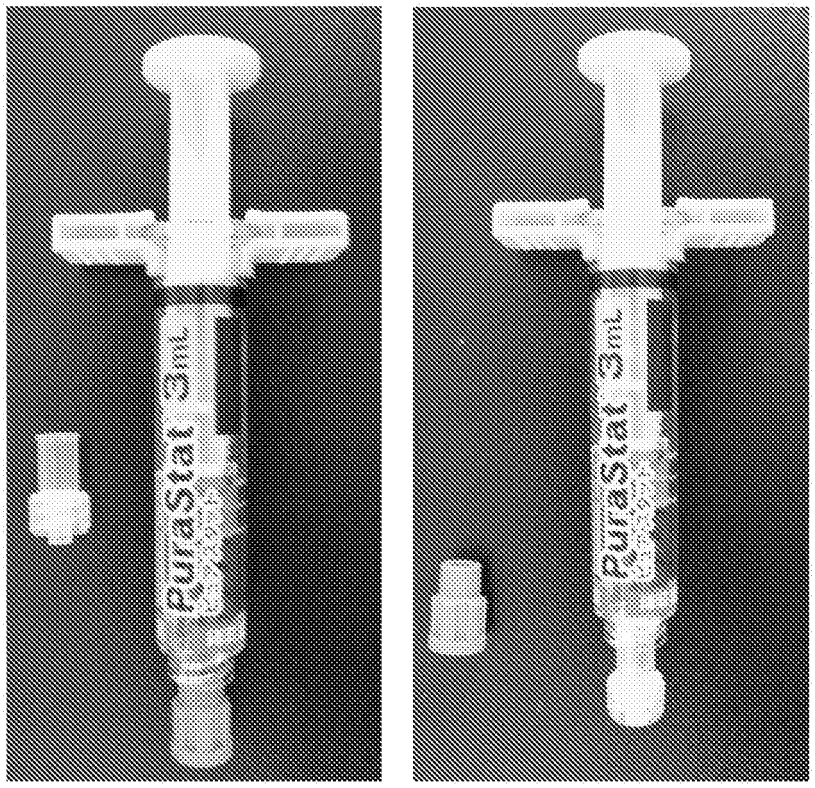
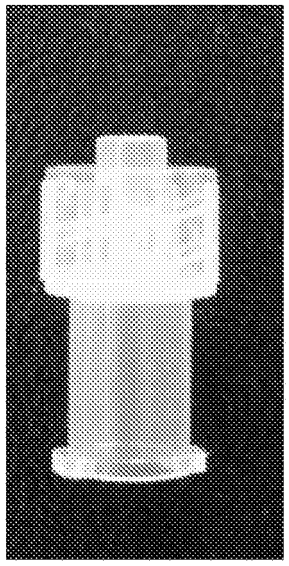


FIG. 7





Syringe connection

Catherer or nozzle/cannula connection

FIG. 8

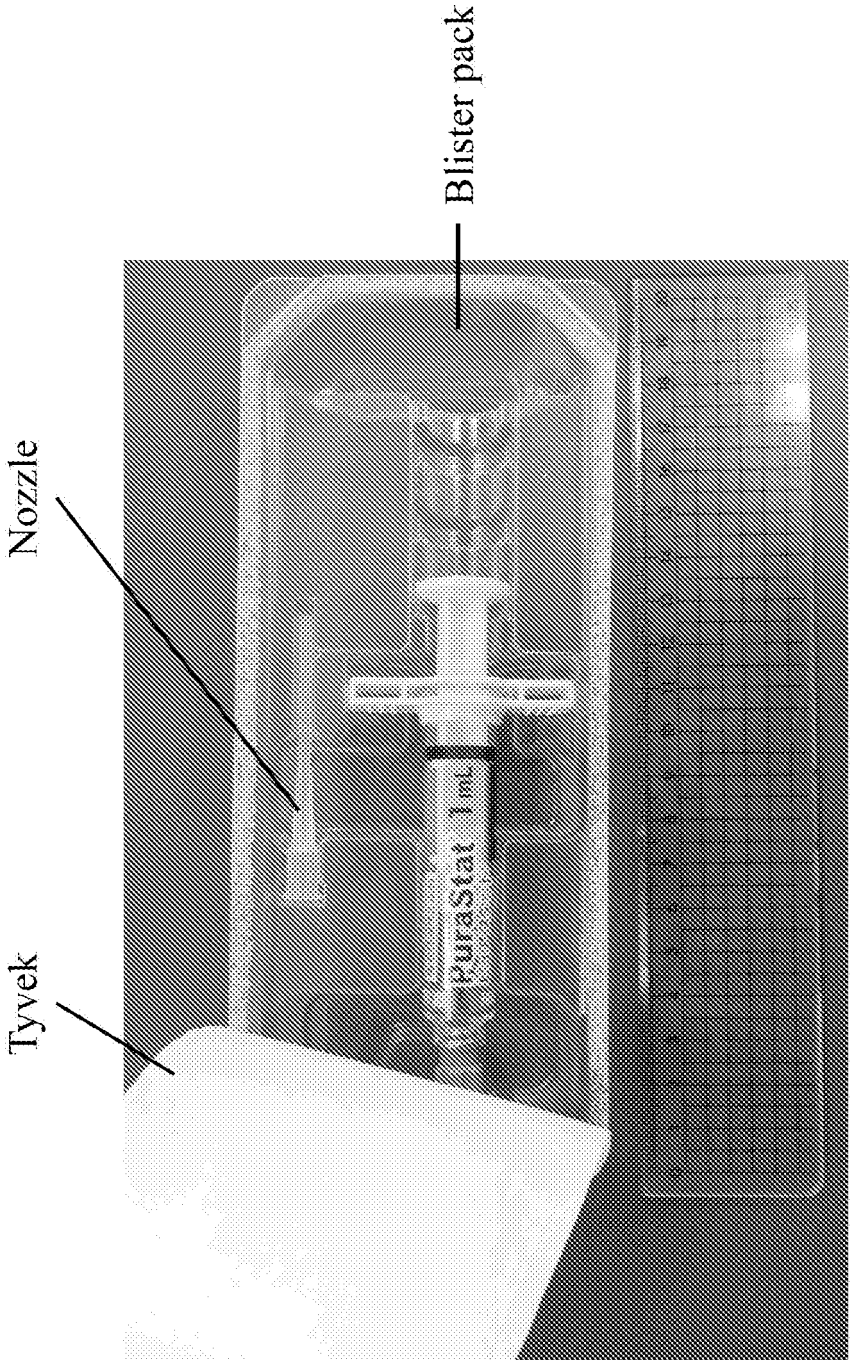


FIG. 9

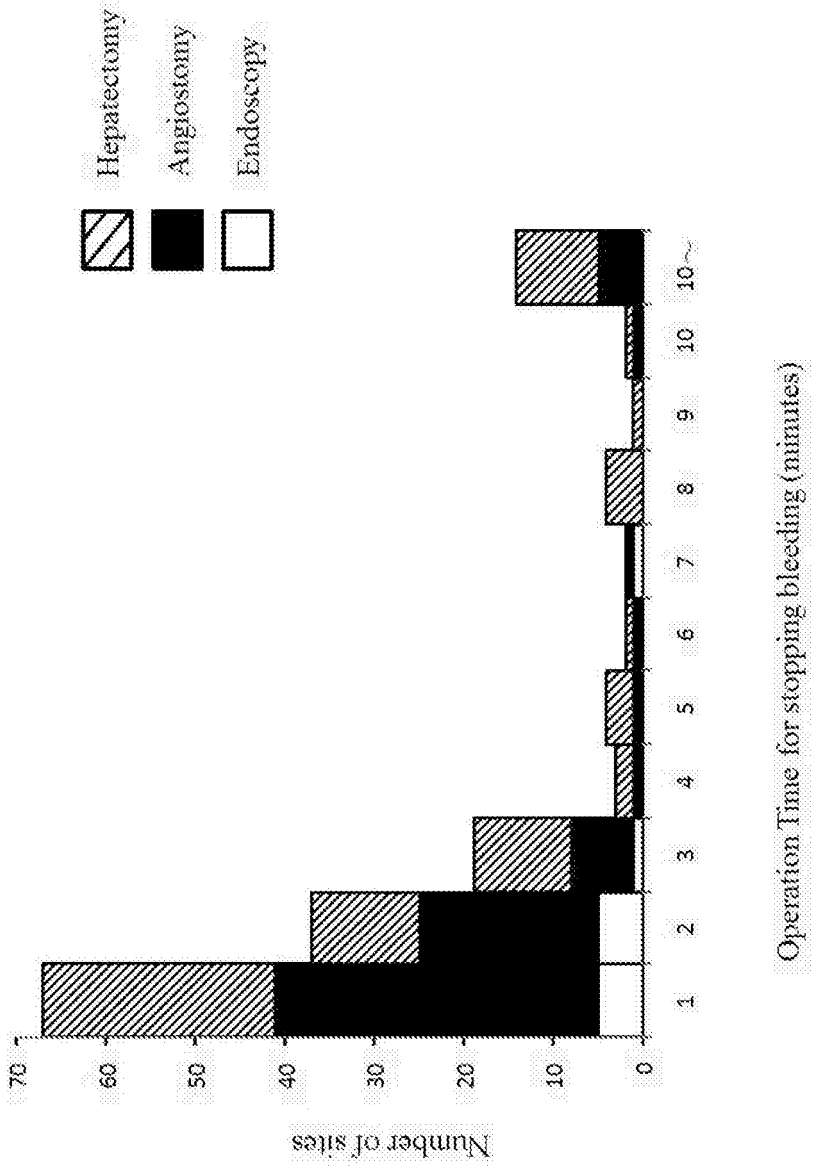

Hepatectomy
Angiostomy
Endoscopy
Number of sites
70
60
50
40
30
20
10
0
1
2
3
4
5
6
7
8
9
10
10~
Operation Time for stopping bleeding (minutes)

FIG. 10