

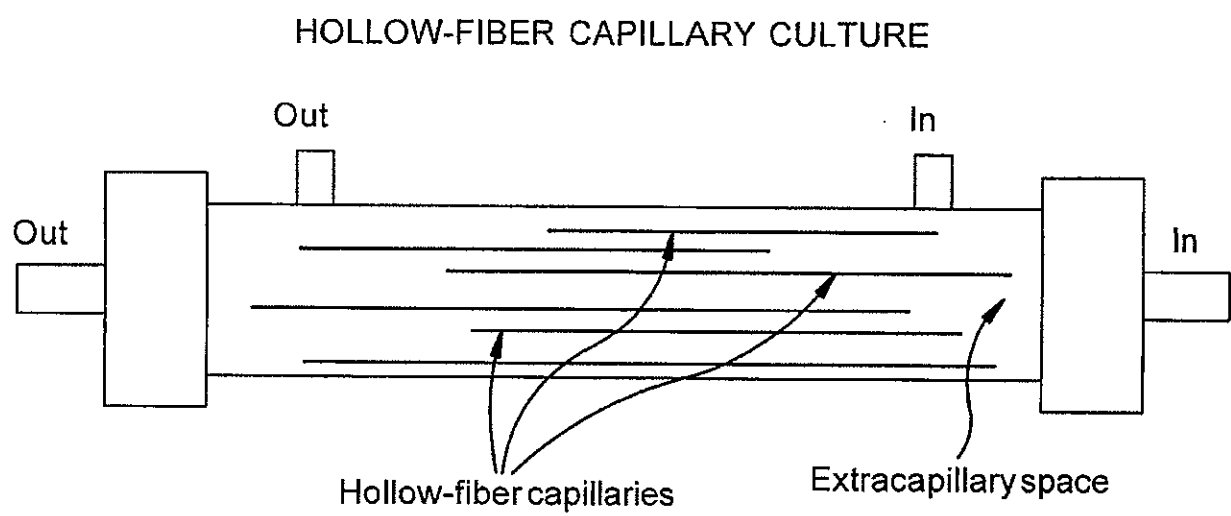


Figure 1

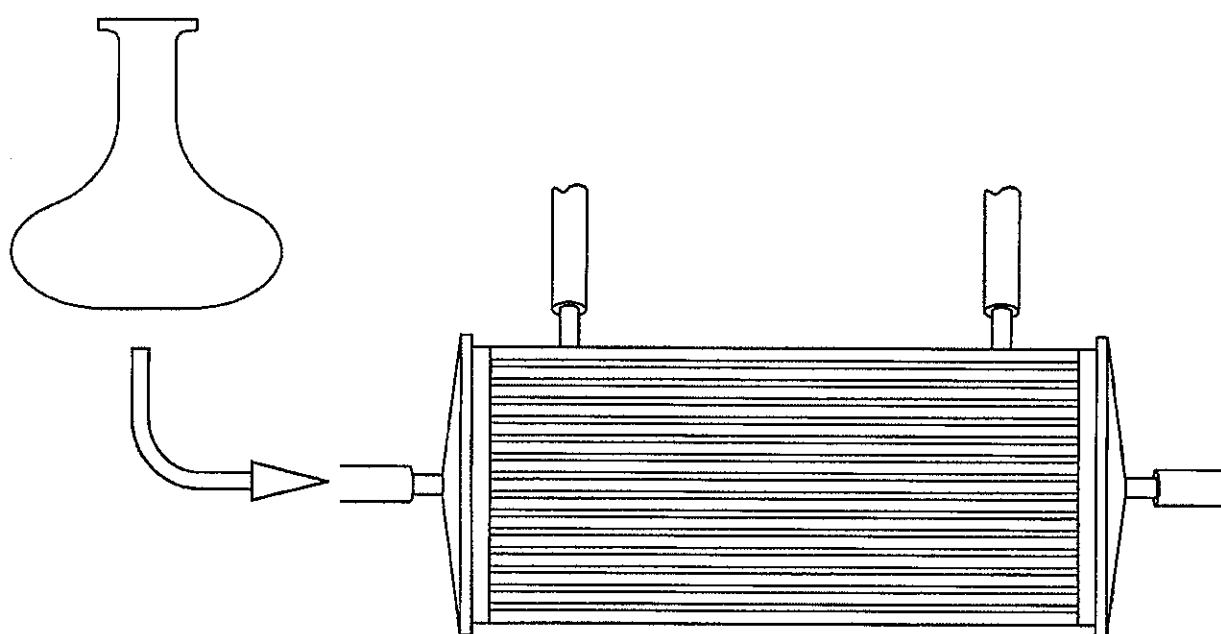


Figure 2

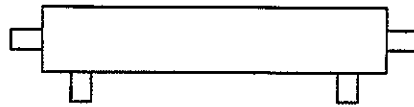


Figure 3A

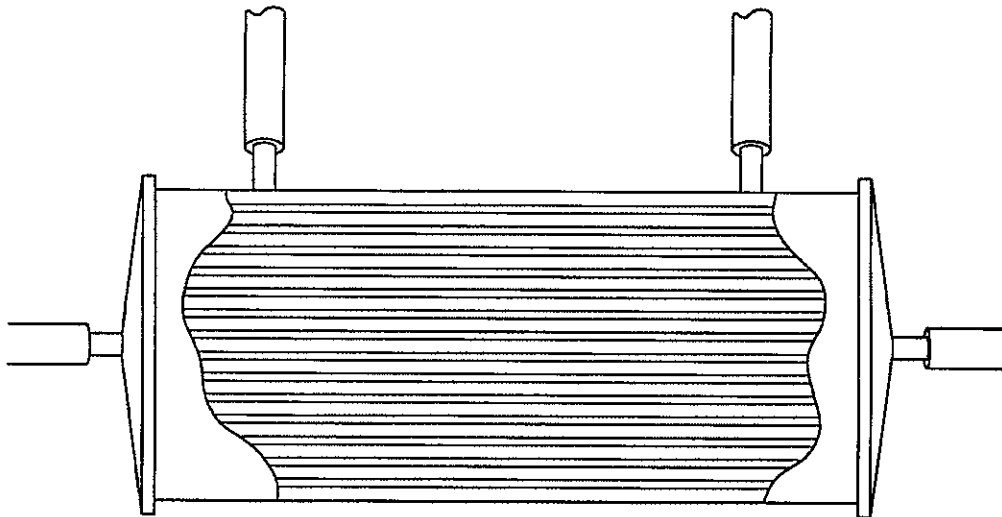
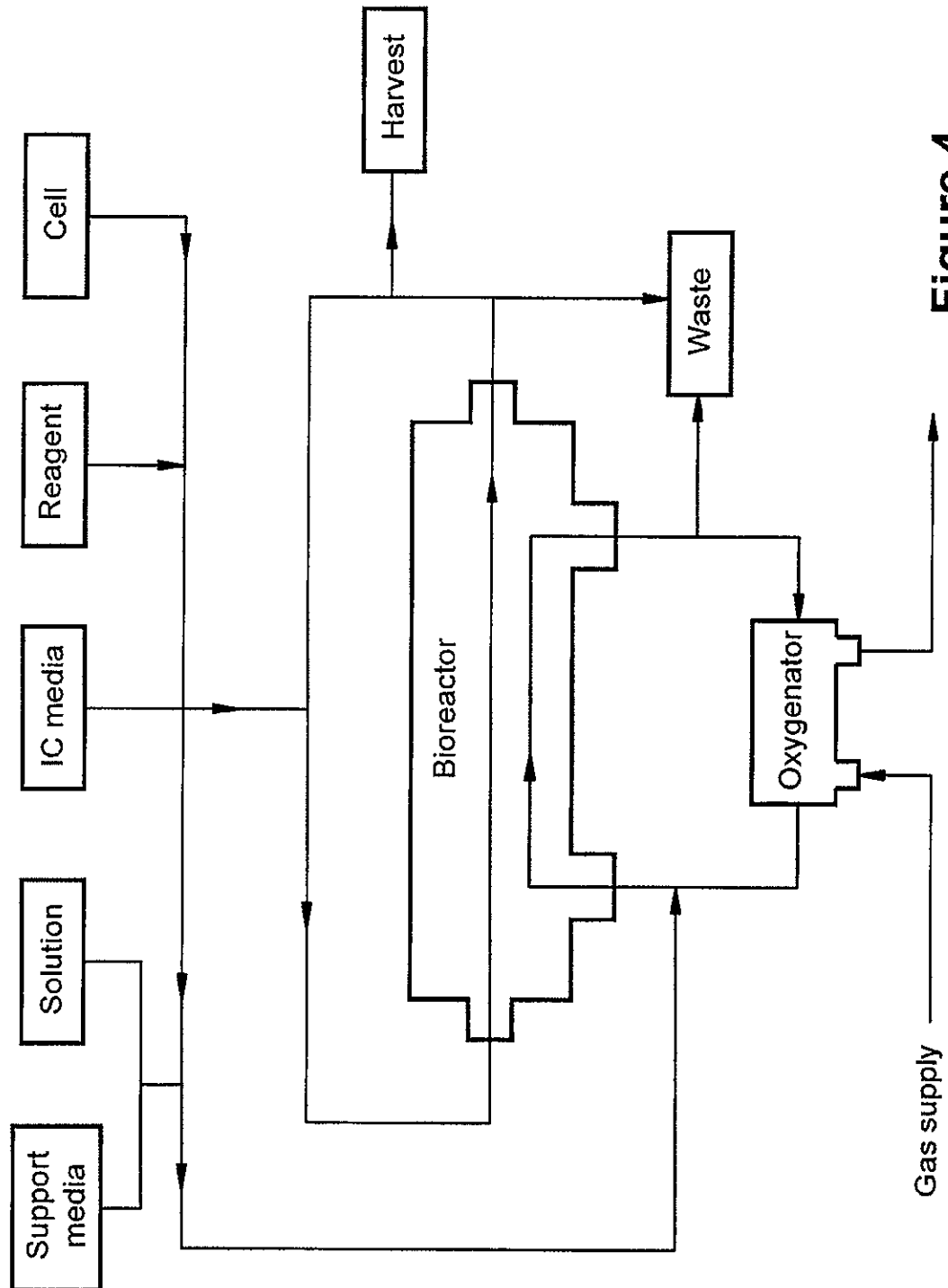
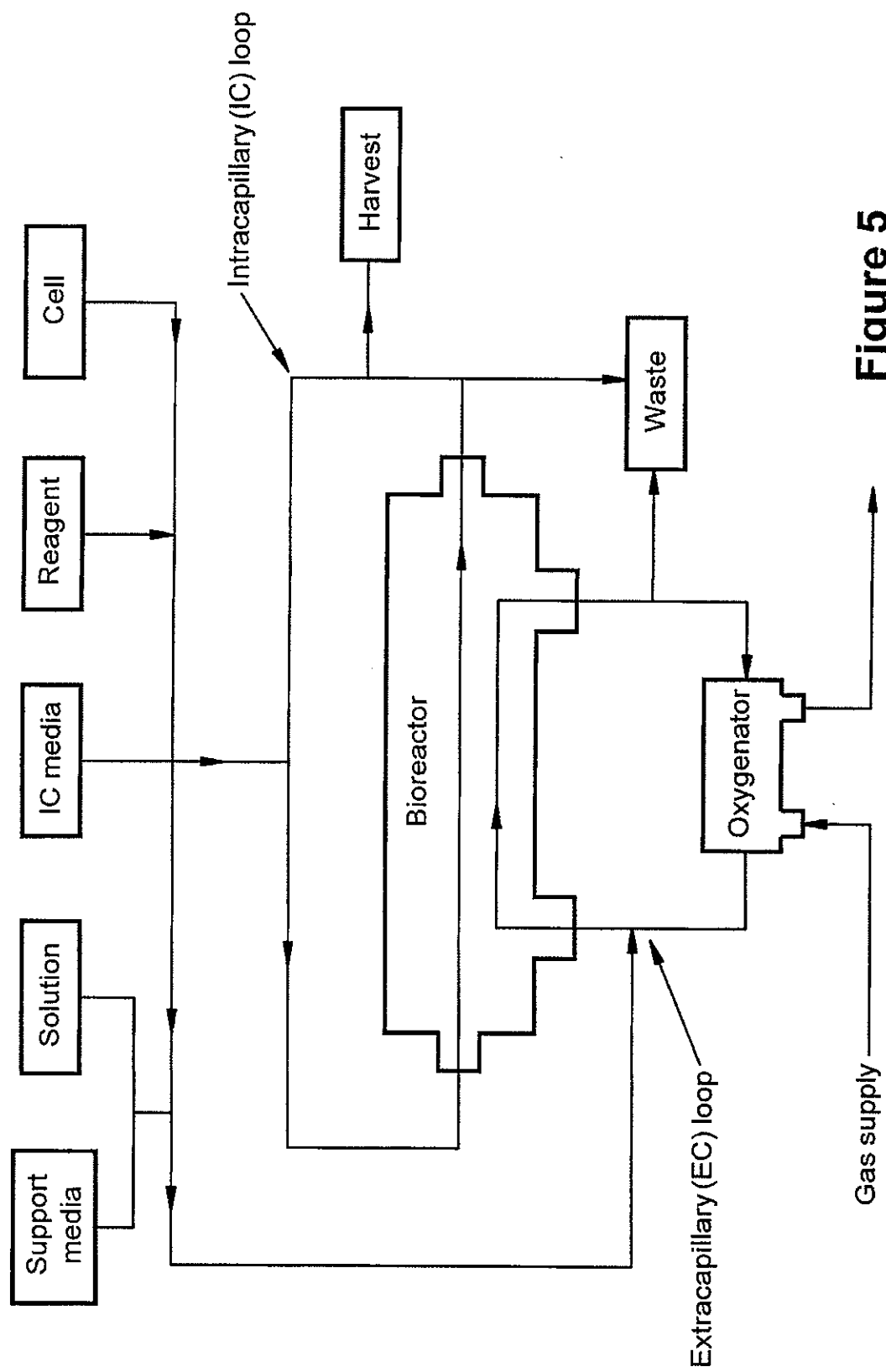


Figure 3B

**Figure 4**

**Figure 5**

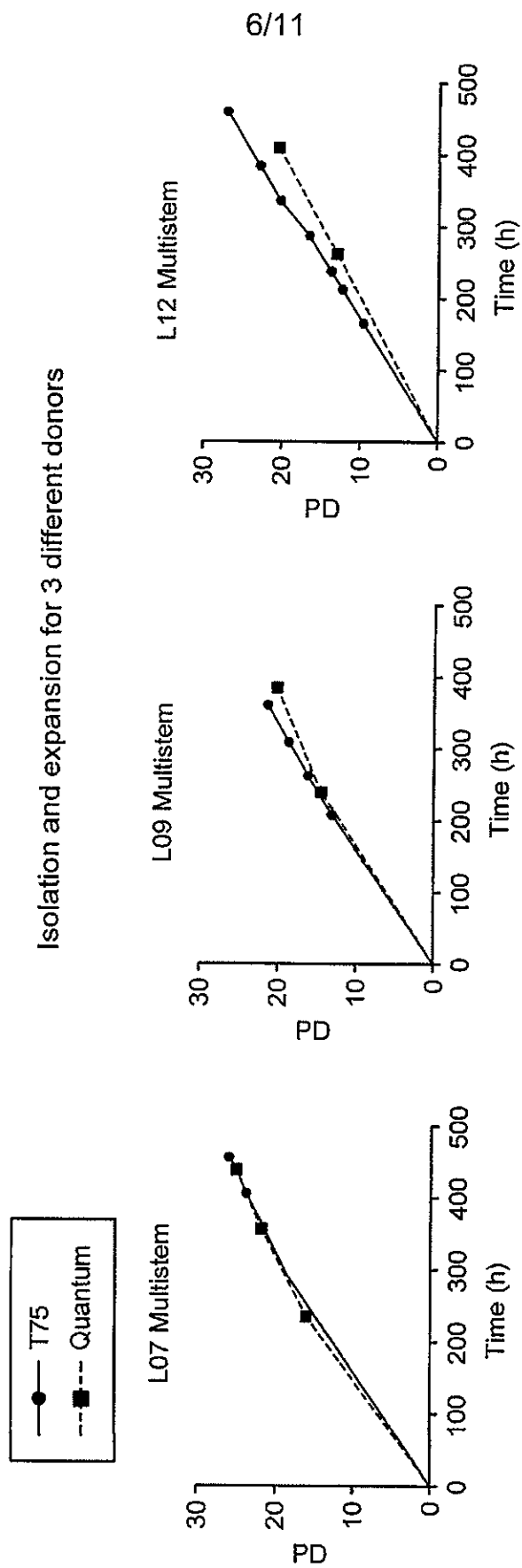


Figure 6

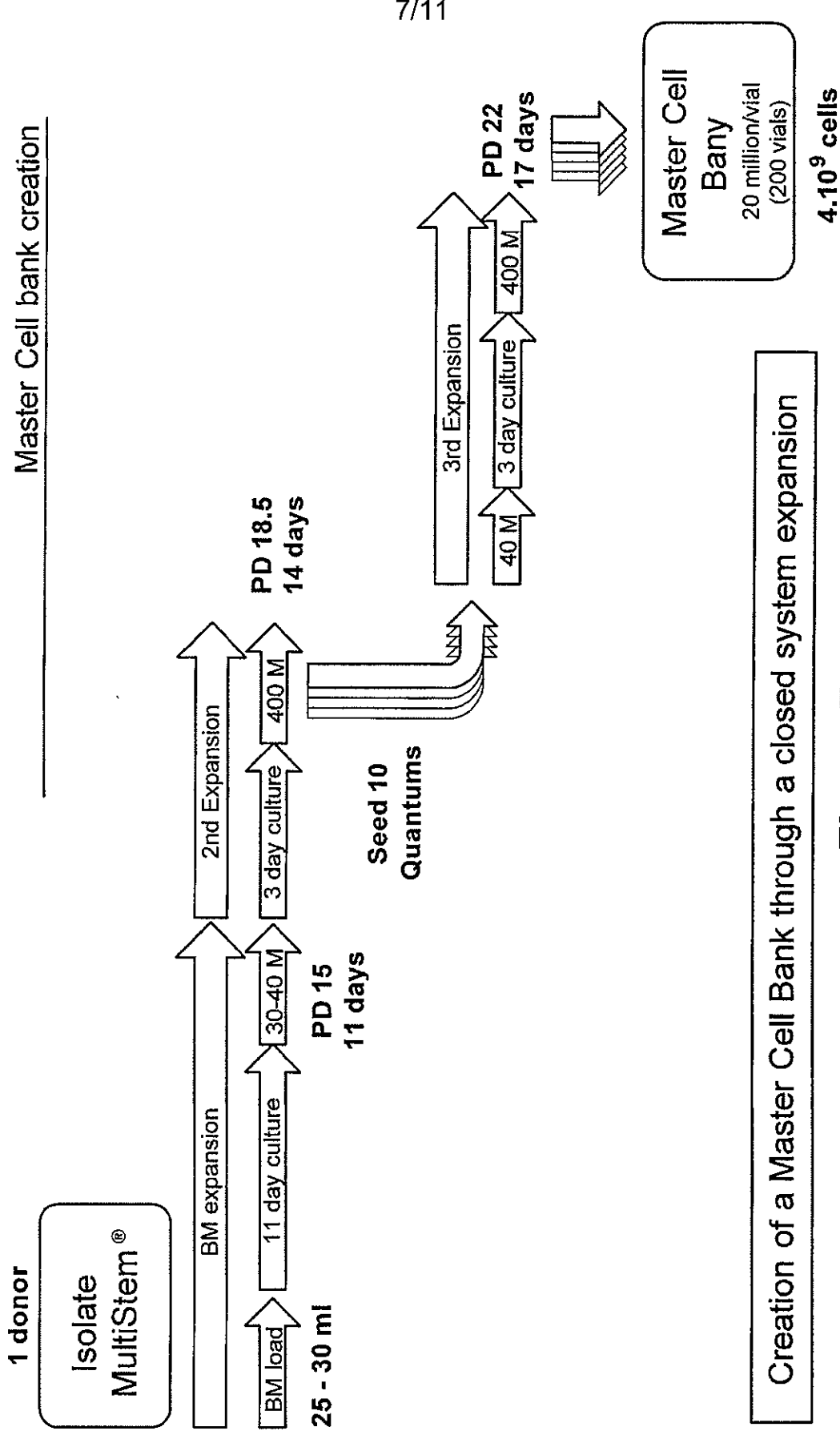


Figure 7

Flow scheme

Used to coat, load the cells and add fresh medium

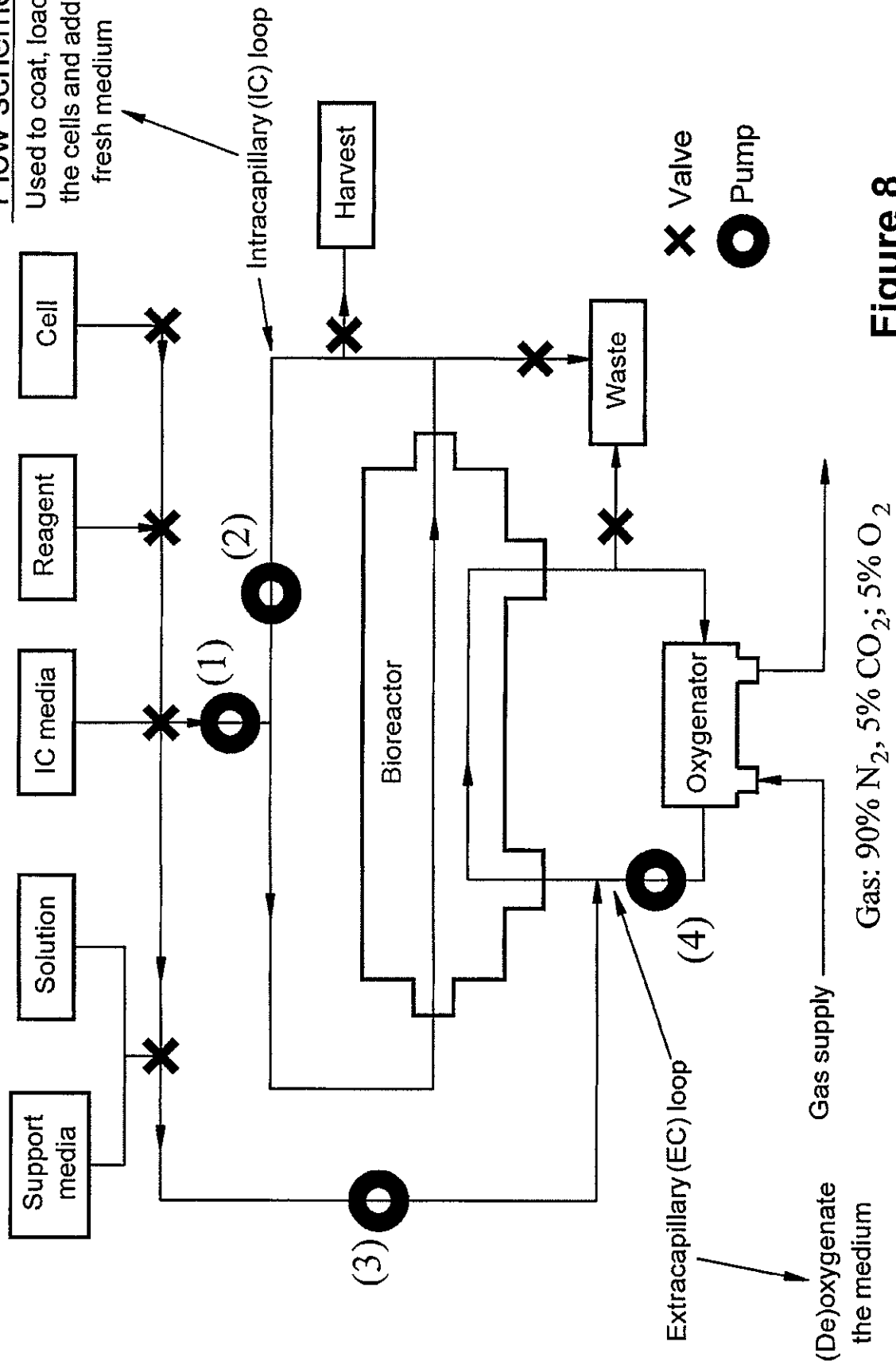


Figure 8

Procedure

- Software provides automated procedures
- Setup
 - Load and prime disposable set
 - Coat the bioreactor membrane with fibronectin (overnight coating)
 - Replace PBS in both loops by media
 - Medium conditioning
 - Load the cells and let them attach (overnight attachment)
 - Perform a washout to remove non adherent cells
 - Continuously feed cells with medium
 - Adjust feed rate according to lactate generation and glucose consumption
 - Harvest with Trypsin/EDTA
- Workload
 - 1 run takes 6 working hours
 - An estimate of 2 to 3 hours if everything would already be available in bags

Figure 9

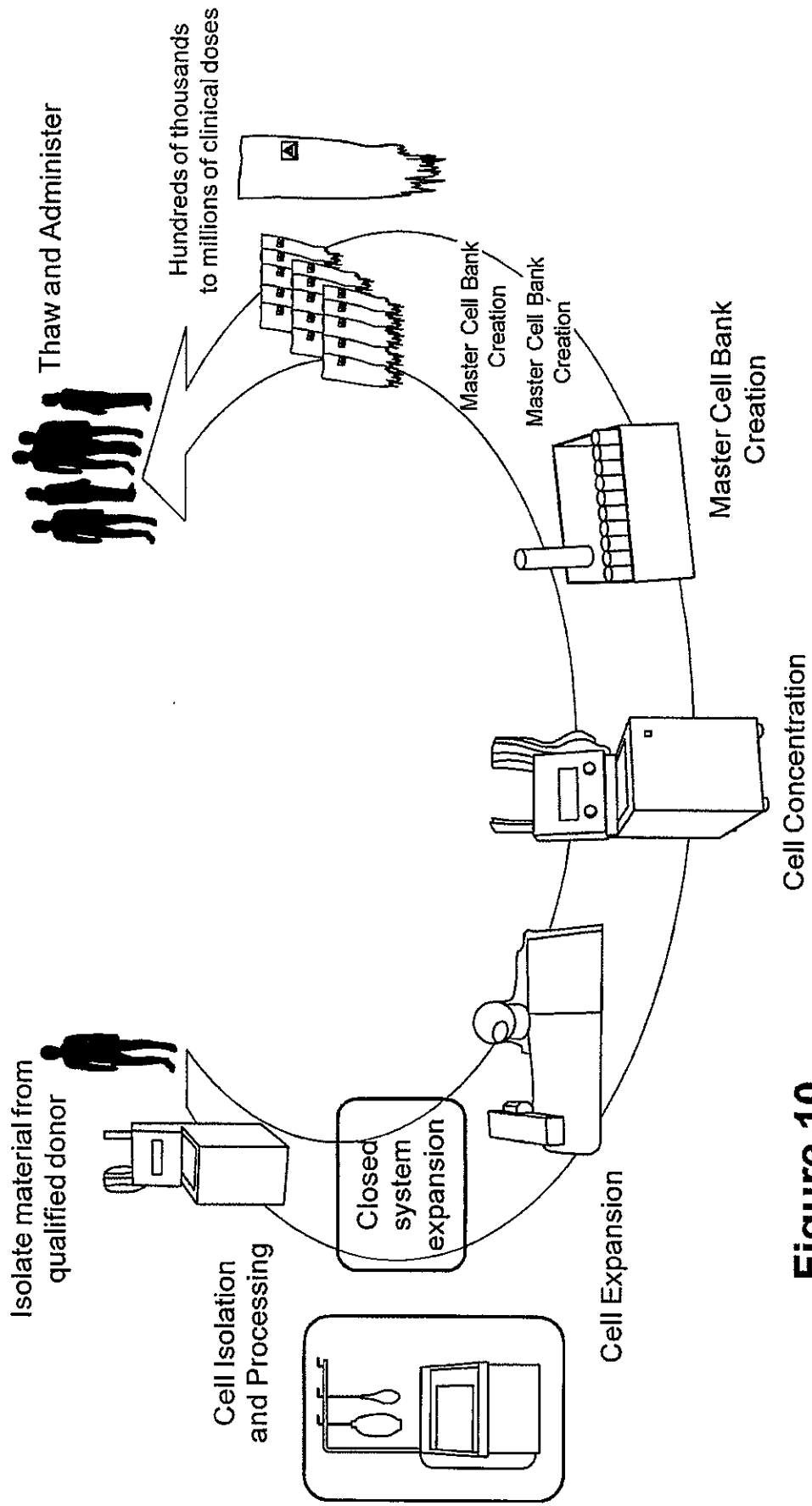


Figure 10

Cell banking approach

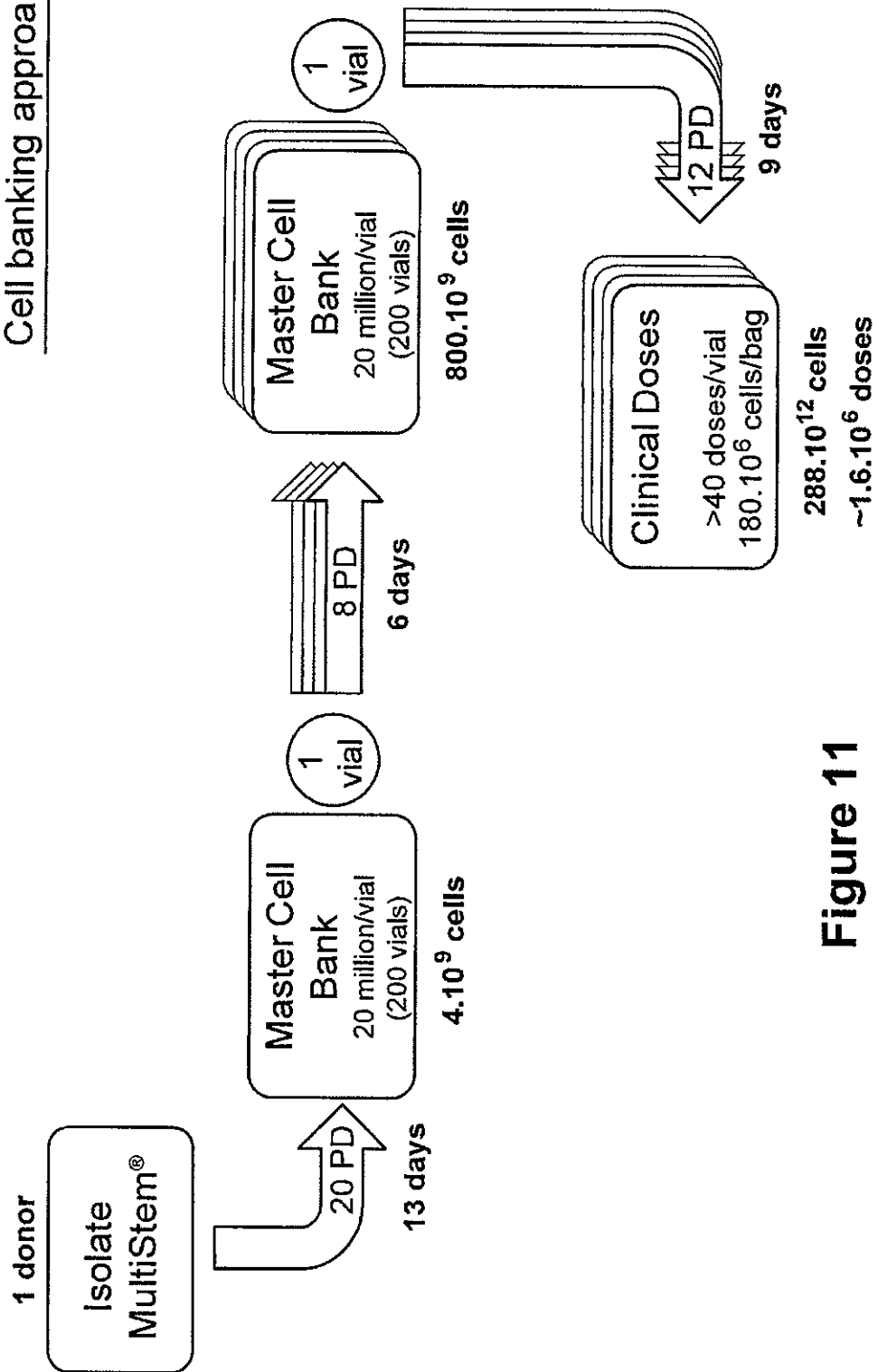


Figure 11