

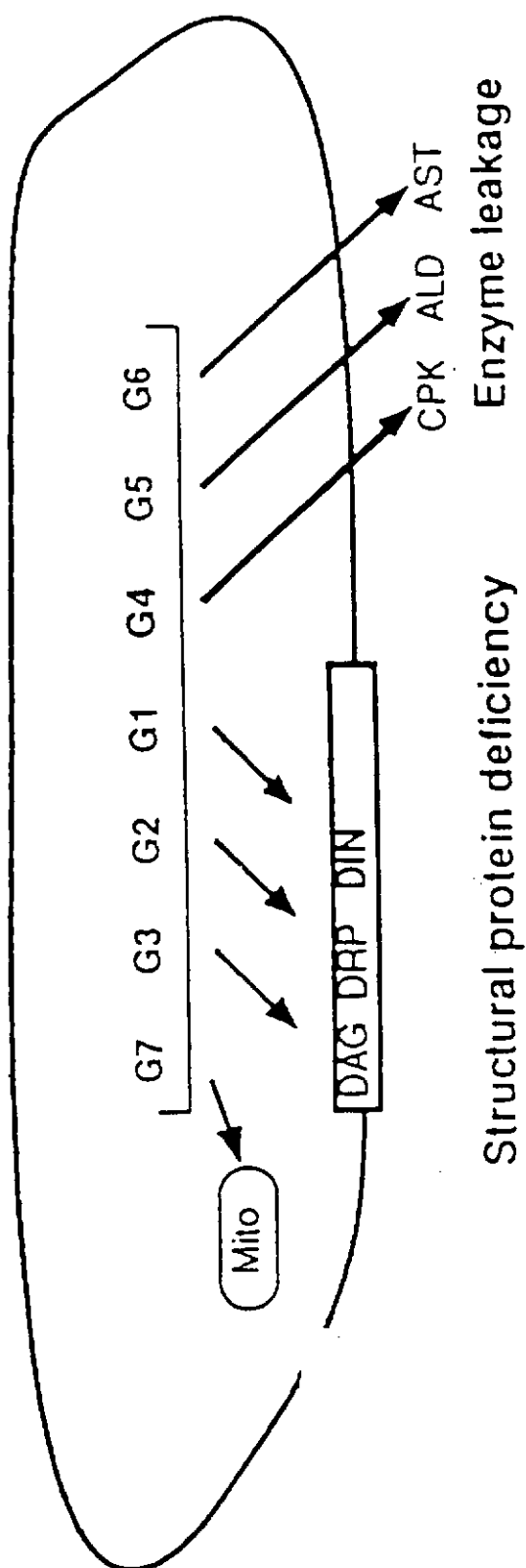


FIG. 1

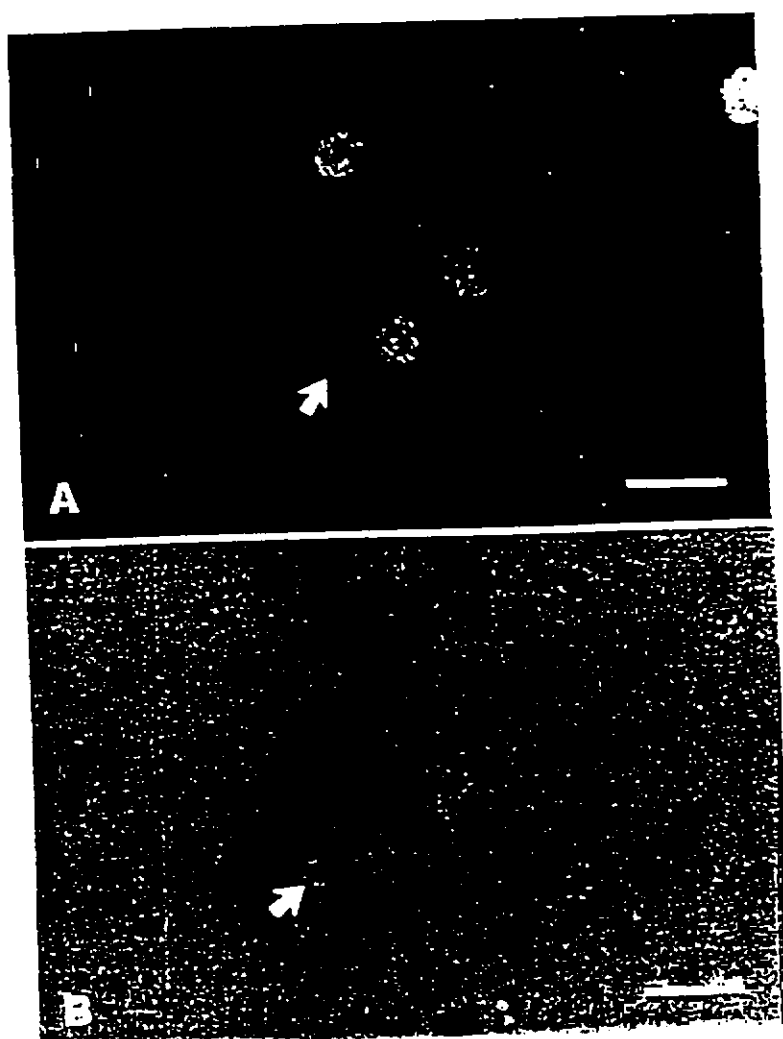
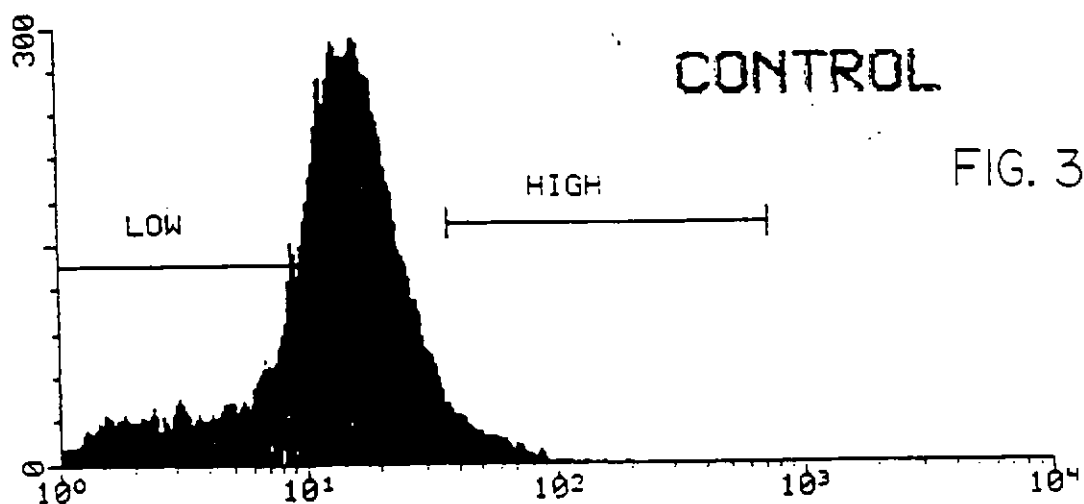


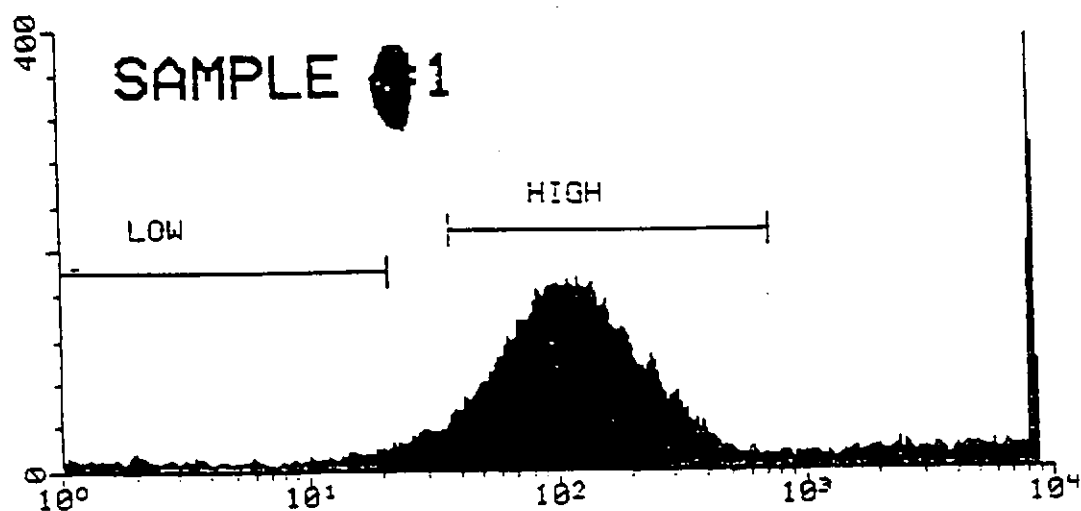
FIG. 2

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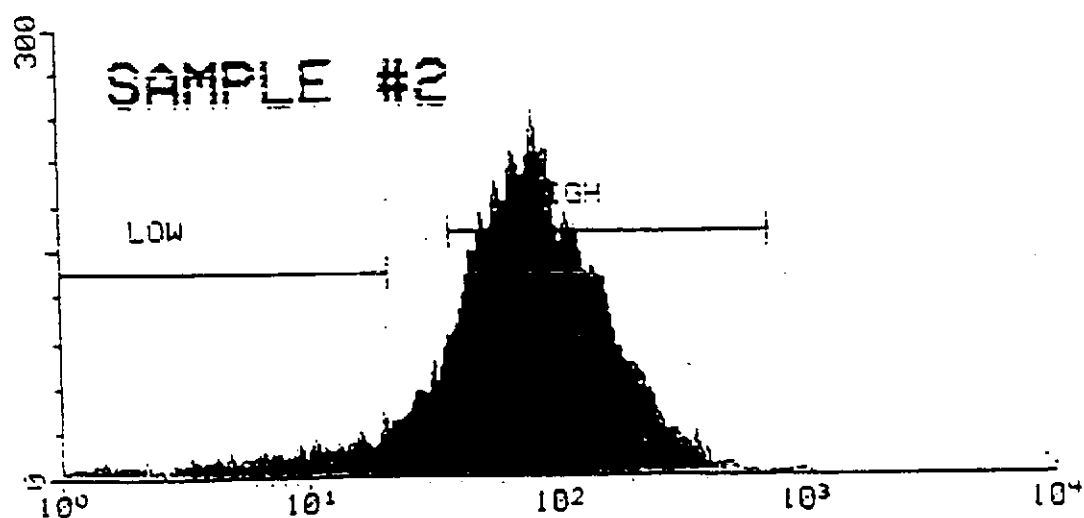
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#11:/1/ST07B001\FL1-H\FL1-Height



#11:/1/ST07B002\FL1-H\FL1-Height



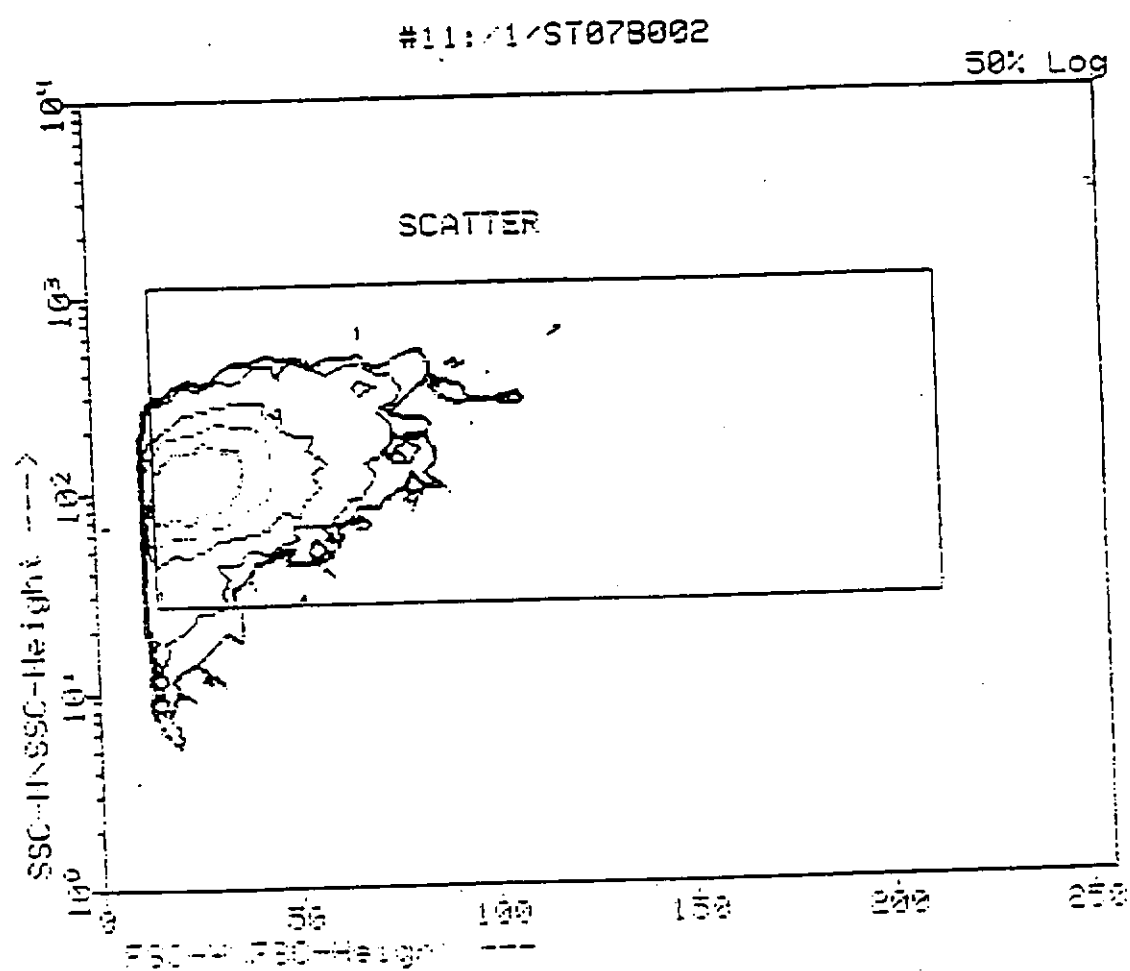


FIG. 4

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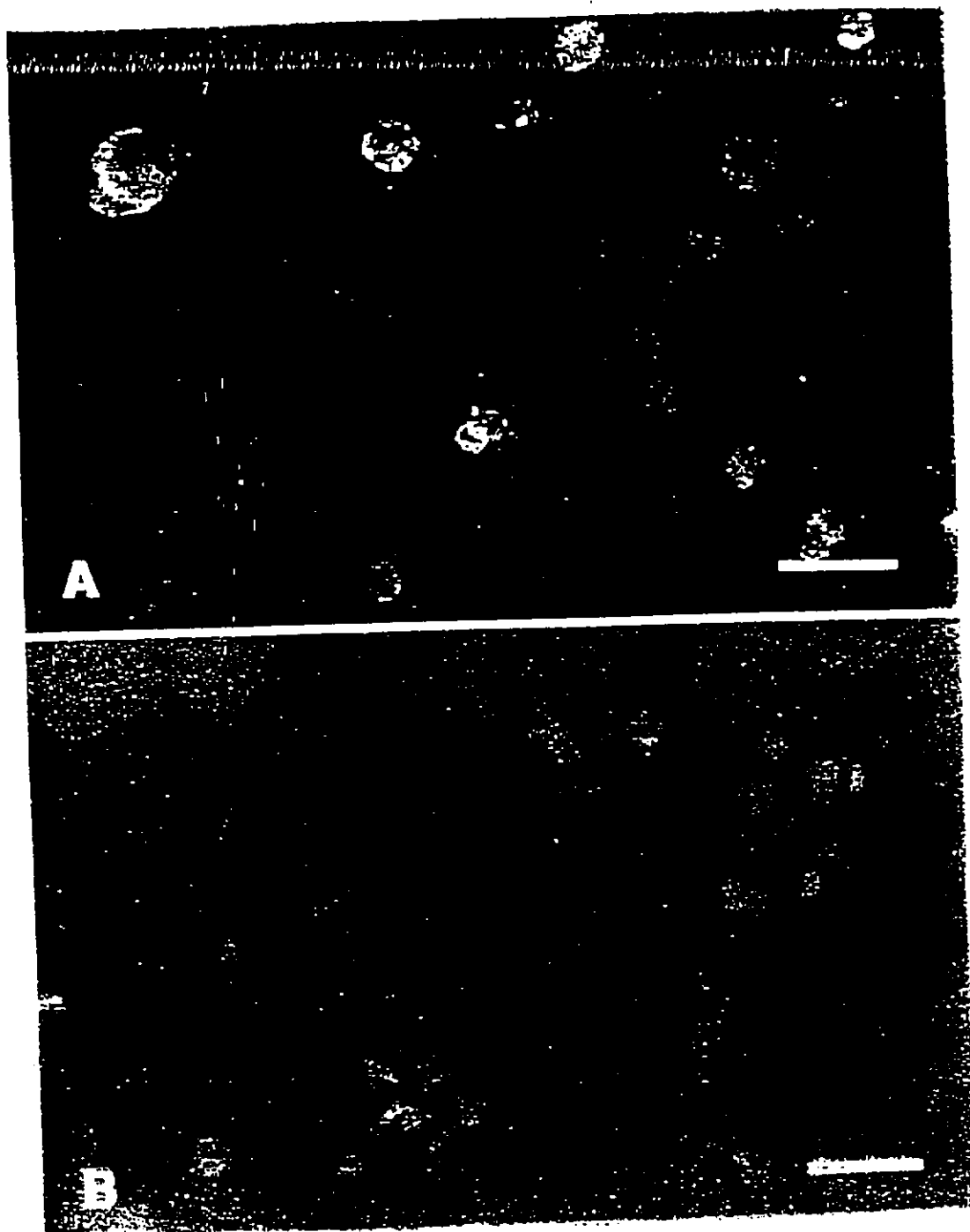


FIG. 5

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ANGLE OF INJECTION DETERMINES
MYOBLAST DISTRIBUTION $A > B > C > D$

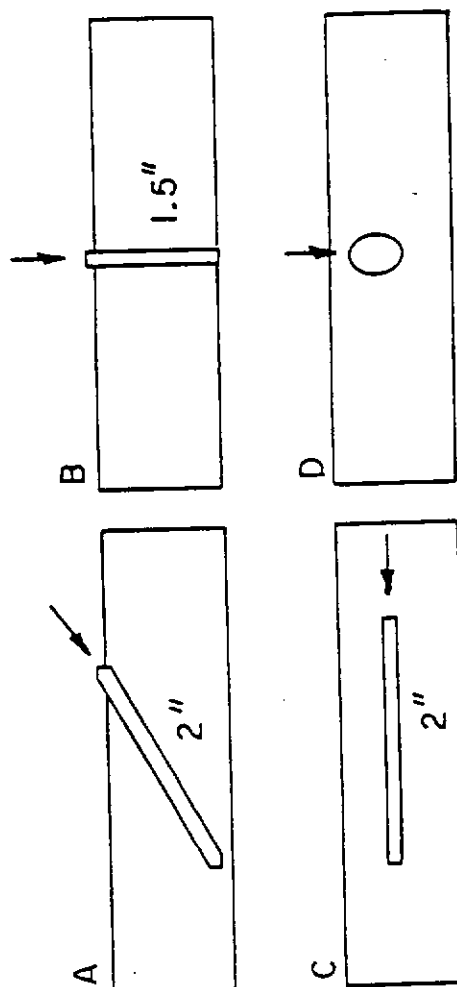


FIG. 6

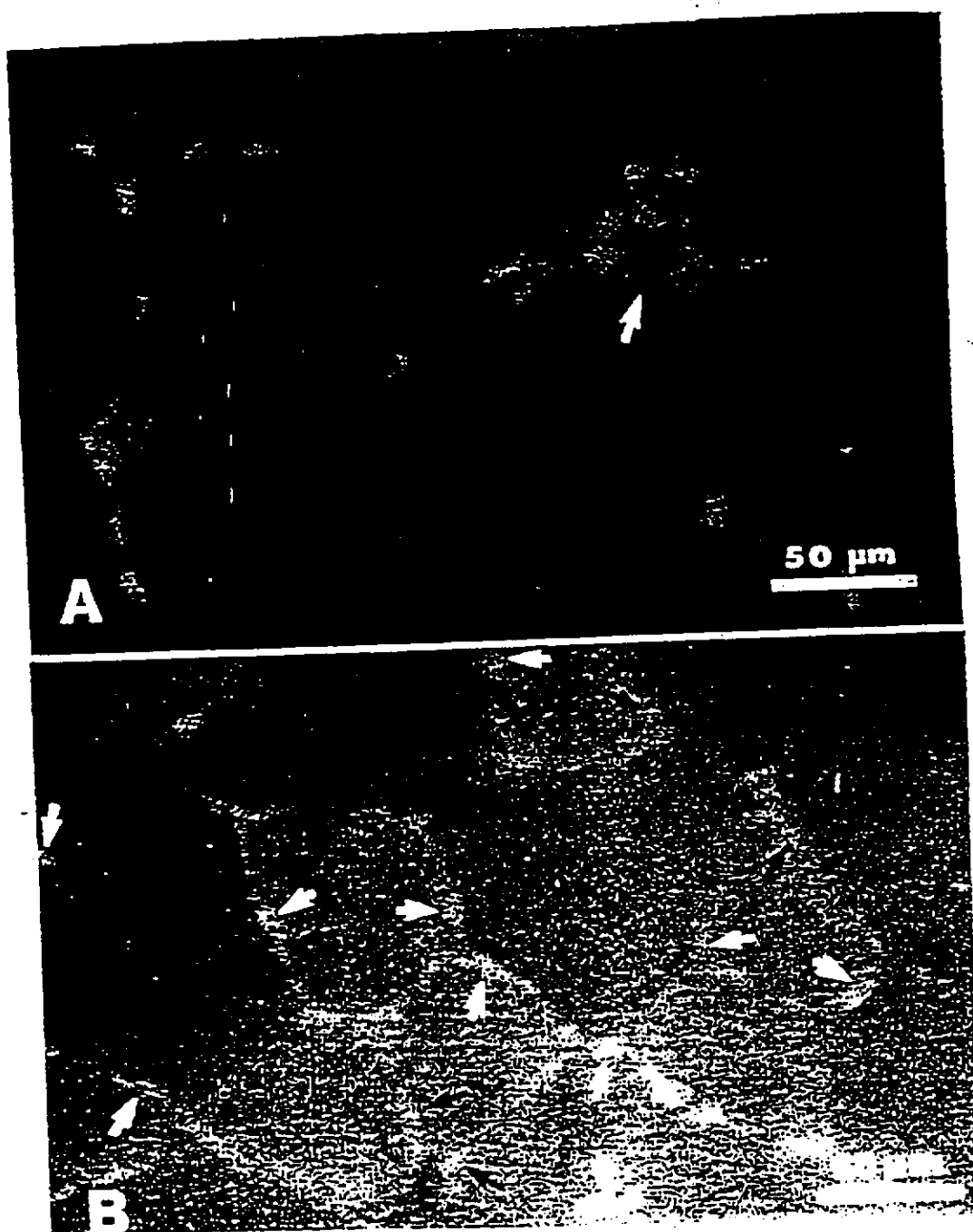


FIG. 7

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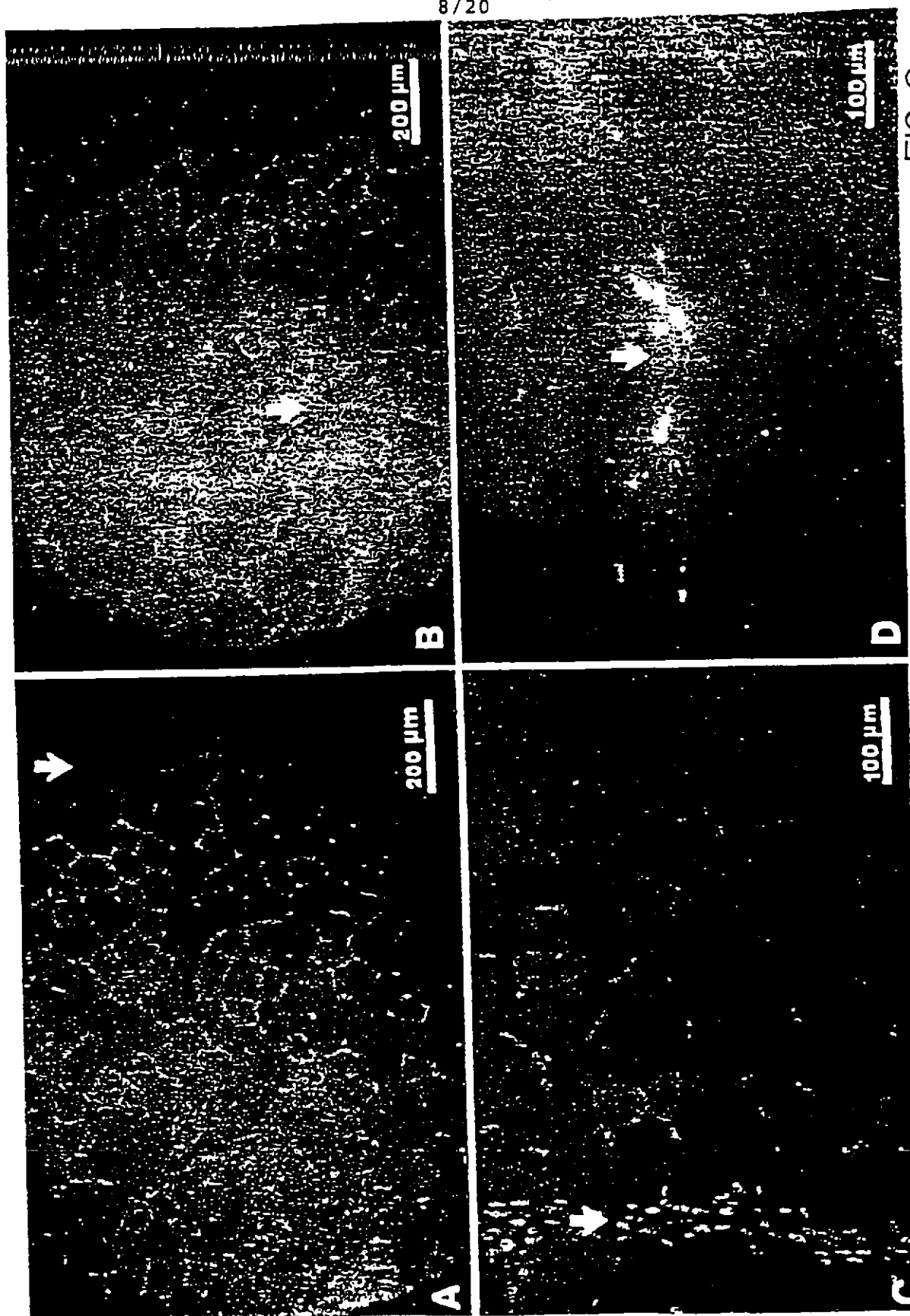


FIG. 8

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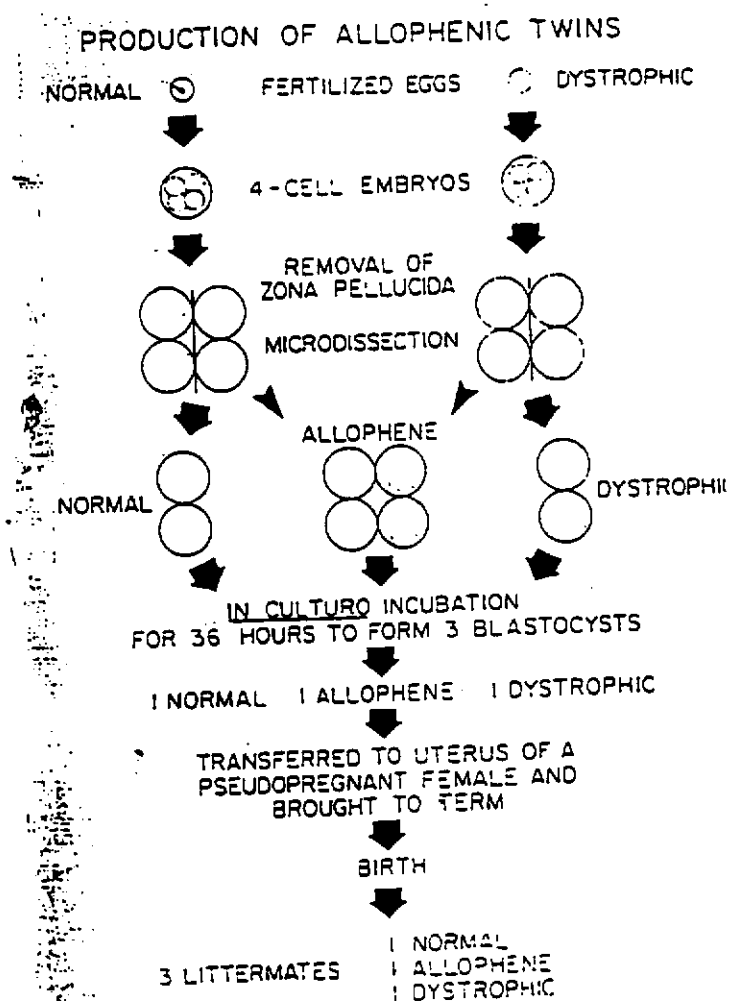


FIG.9

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FIG. 10

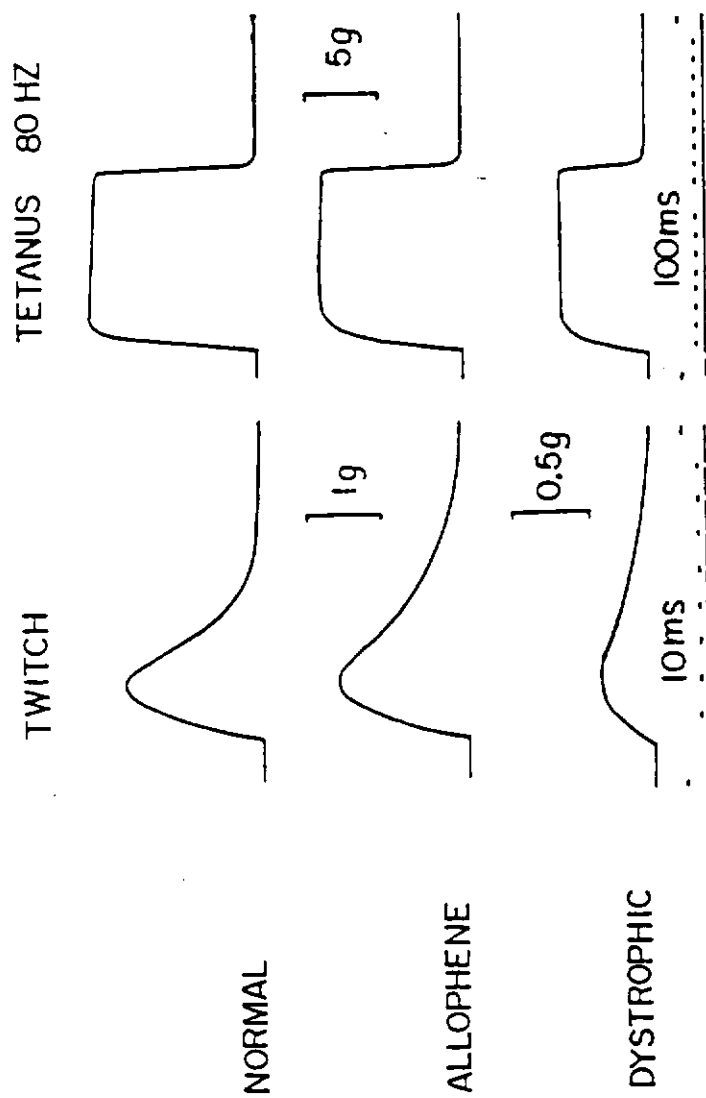


FIG. 11



FIG. 12

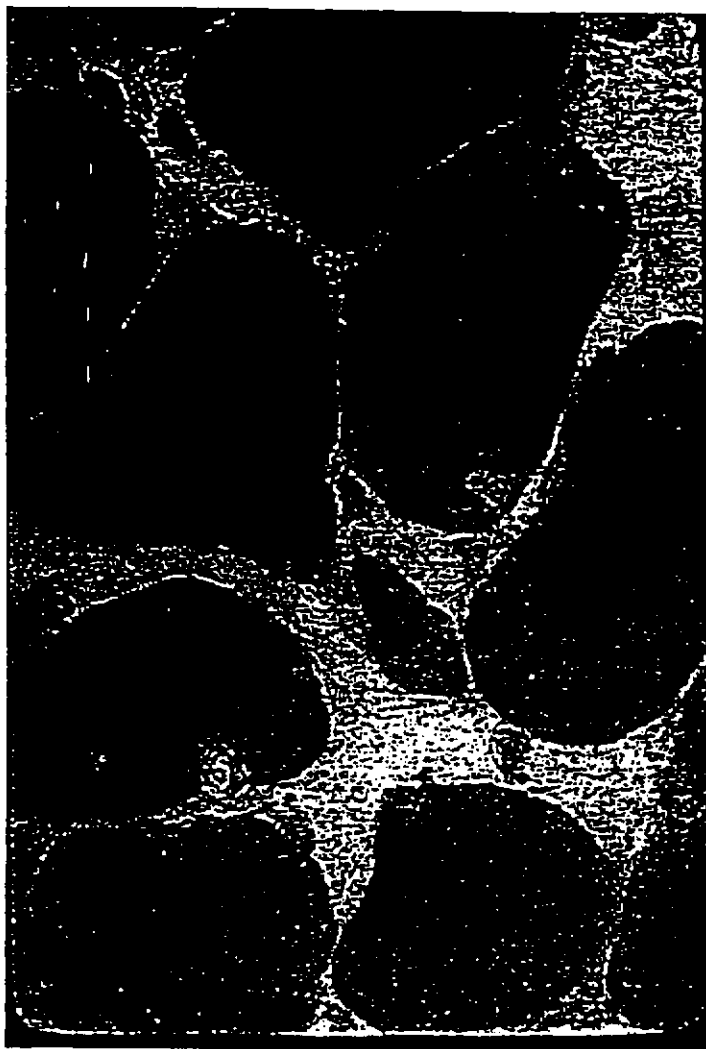


FIG. 13

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Instrument components

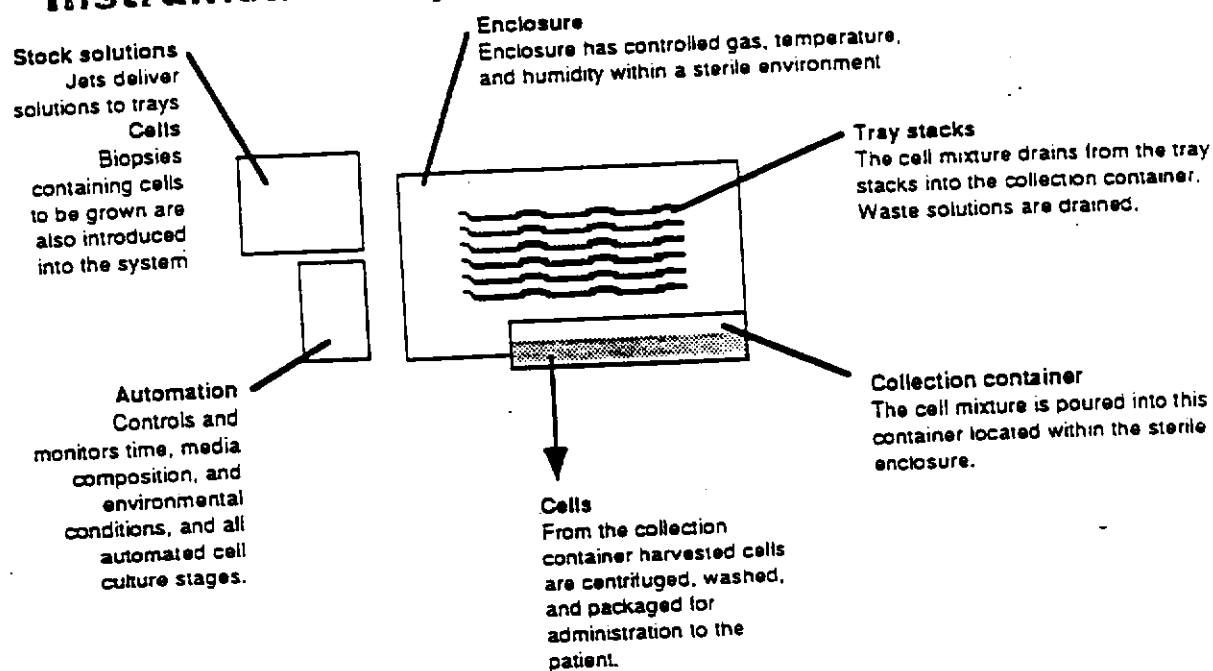
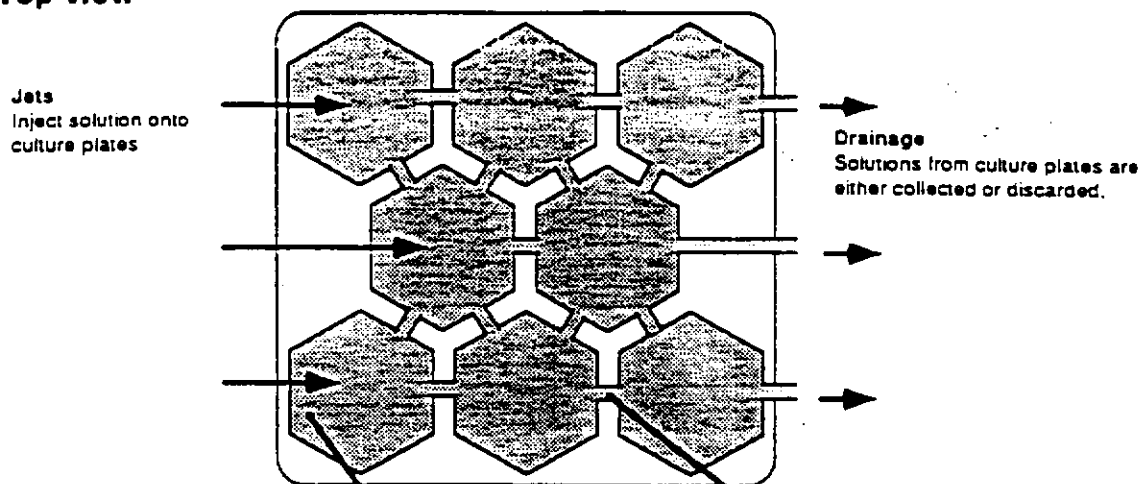


FIG.14

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Culture trays

Top view



Side view



Culture plate

Each plate is 1800 cm². Each holds cells, media, and/or rinse solutions. Made of stainless steel that is sterilized and is coated with collagen to allow cells to adhere.

Flow duct

Keeps the solution level even throughout all the culture plates. Also allows solutions to flow between culture plates when the entire pan tilts.

Tray stacks

Composed of many culture plates interconnected by flow ducts. Trays are stacked but do not touch.

Automated actions



Fill

Jets fill trays with solution



Wash and drain

Tray stacks tilt to allow solutions to drain during washing or media changes. Jets add fresh solution to trays while wash solutions are drained and discarded. Detached cell mixtures are collected.



Drain and collect

Tray stacks tilt to vertical to maximize detached cell collection during harvest.

FIG.15

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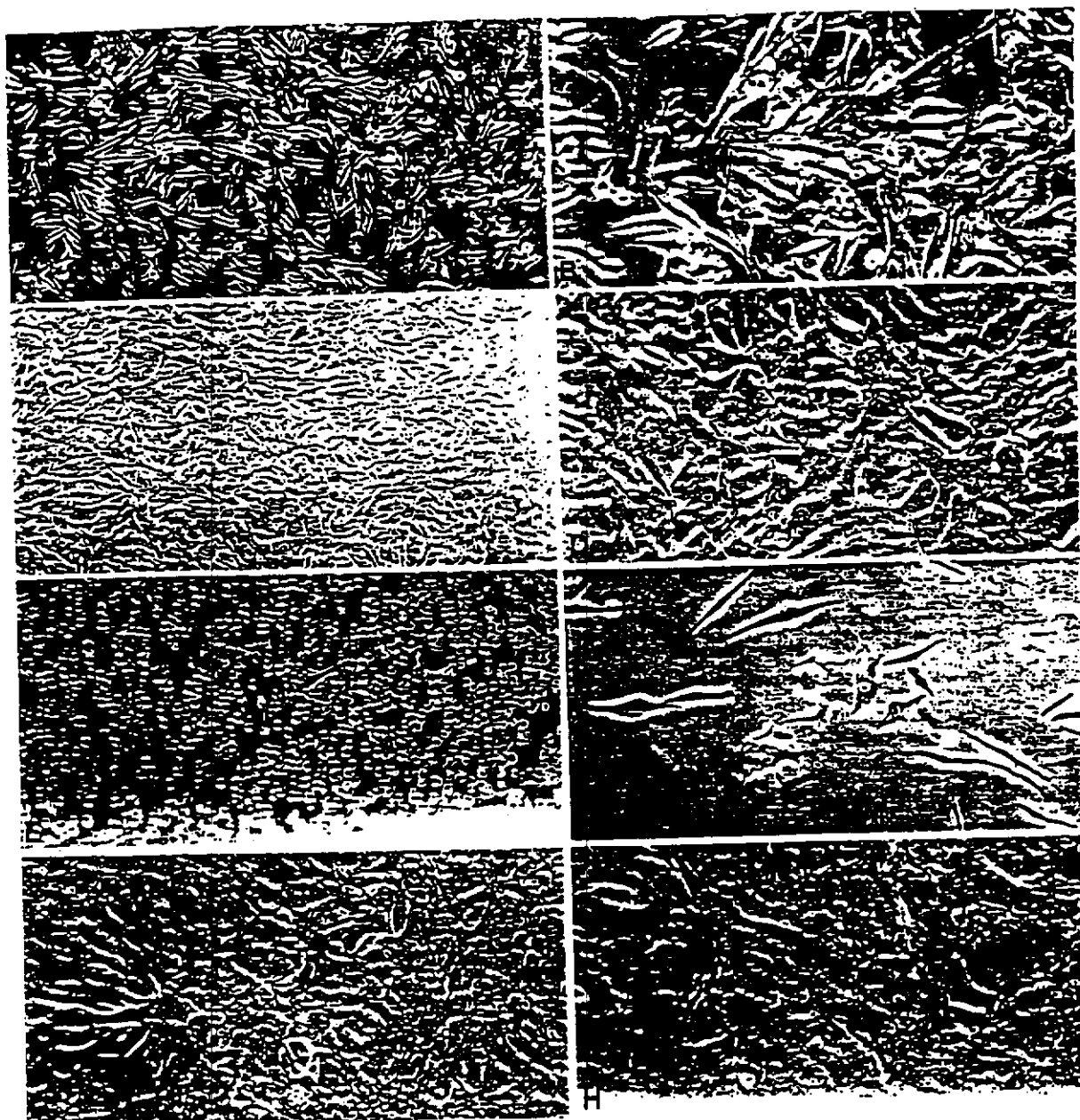


FIG.16

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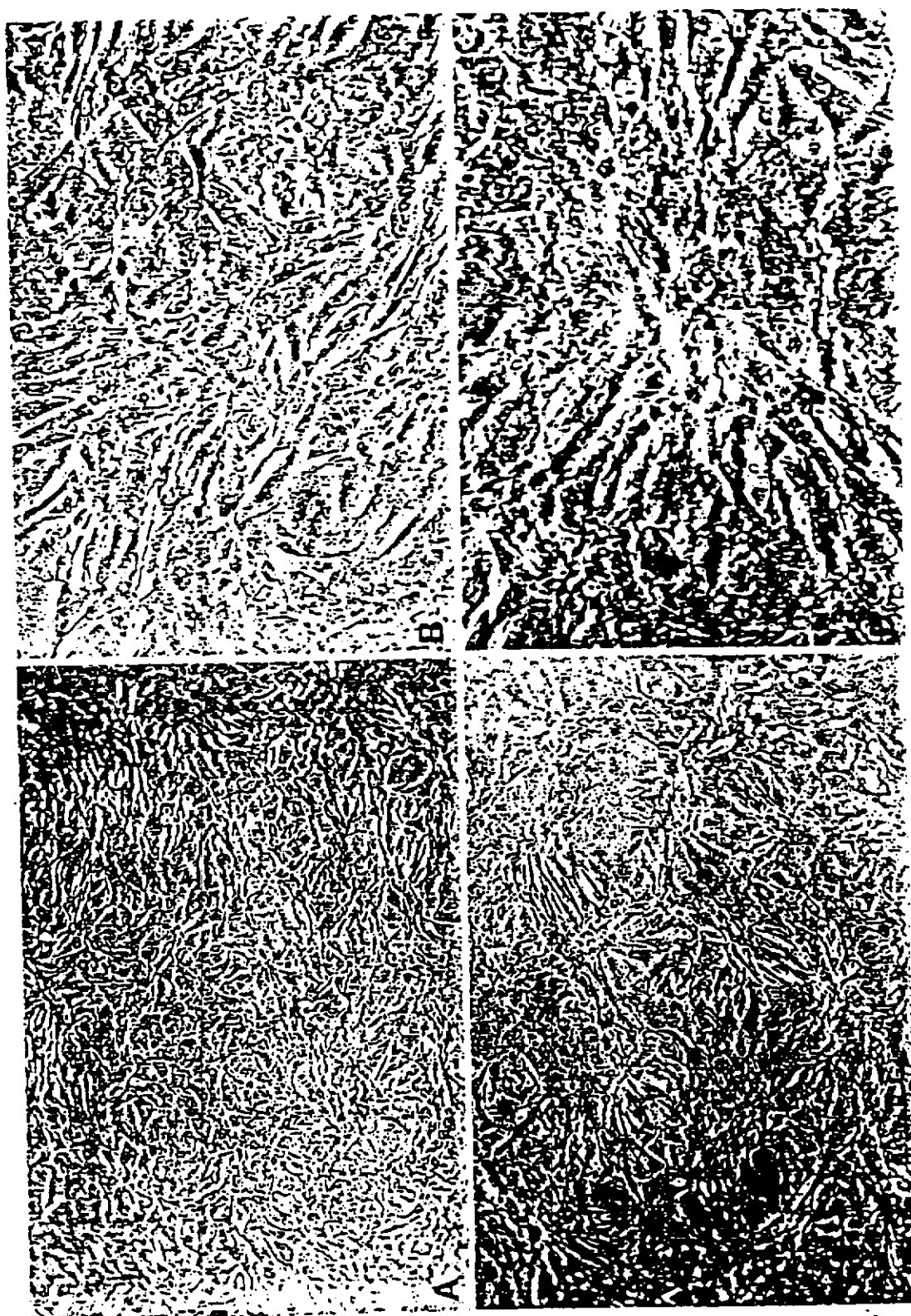


FIG.17

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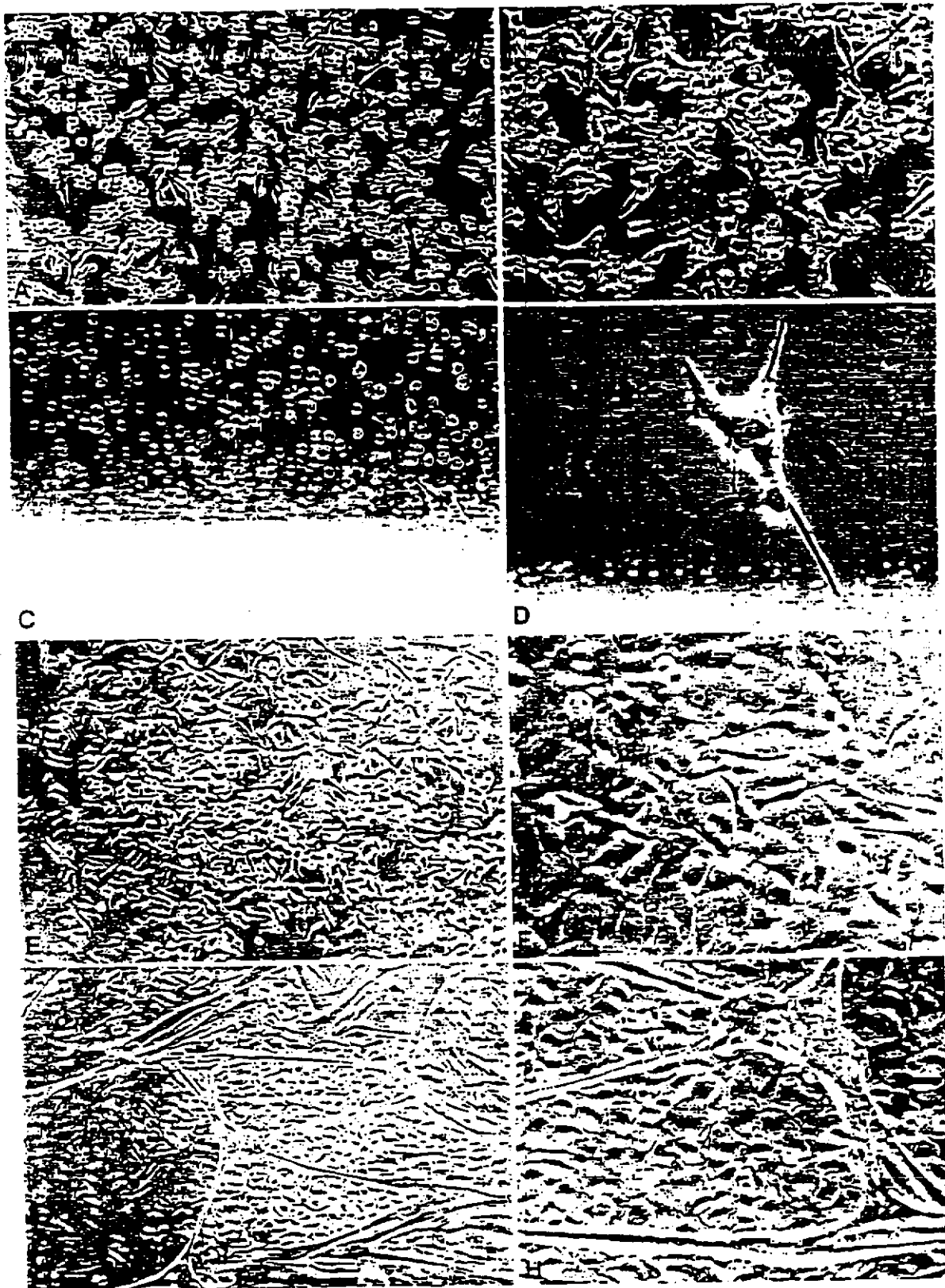


FIG.18

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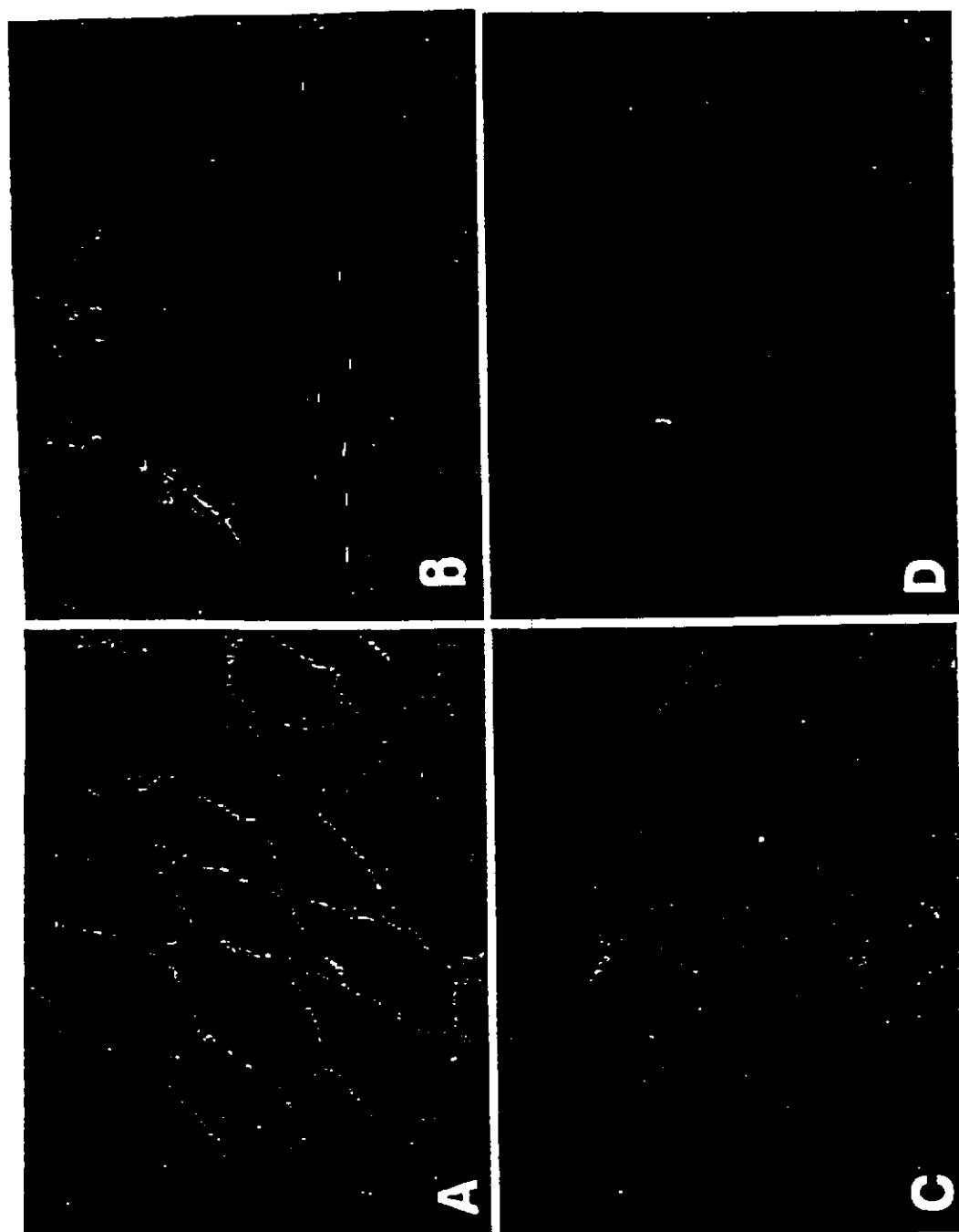


FIG.19

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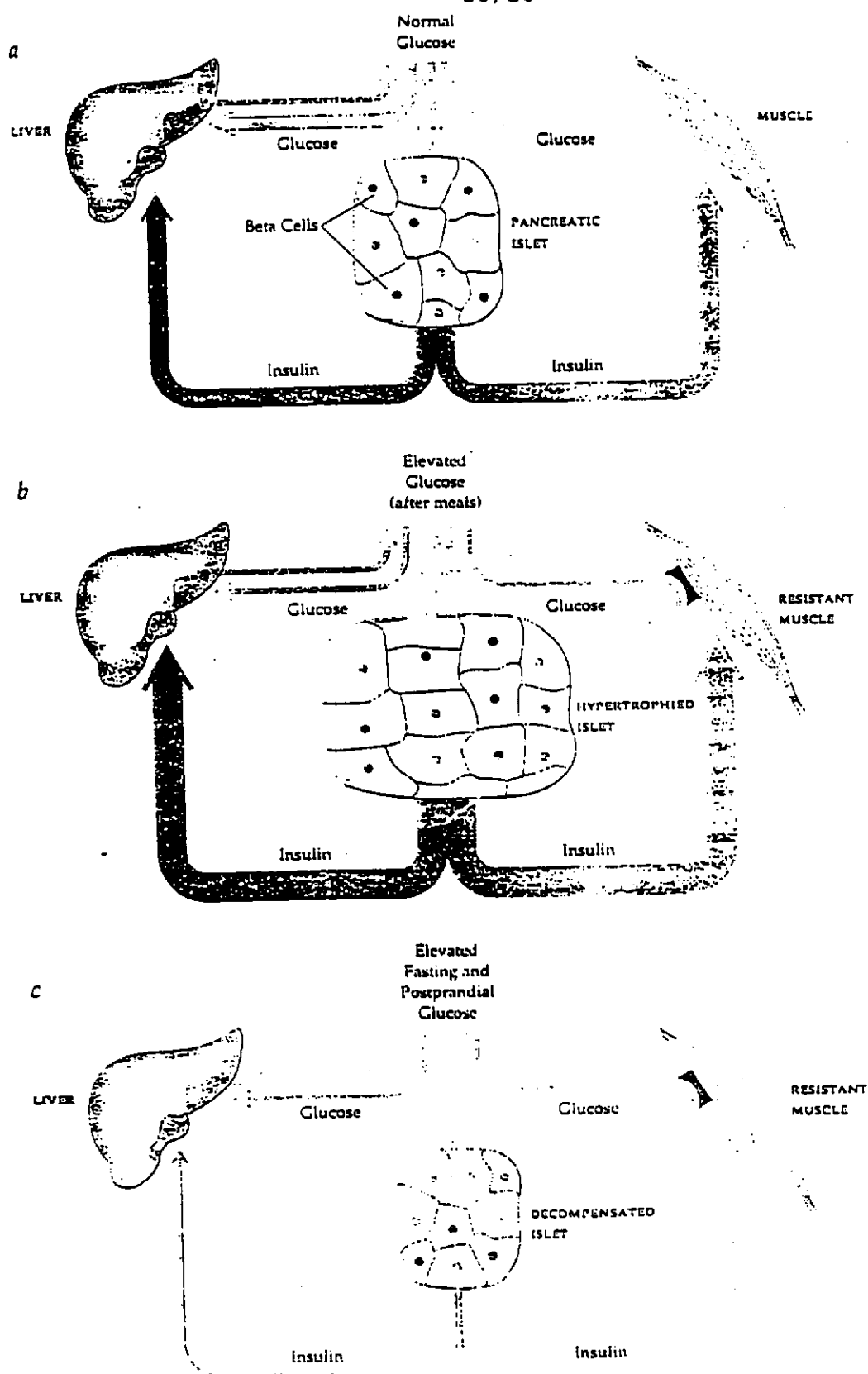


FIG. 20