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TISSUE ENGINEERING

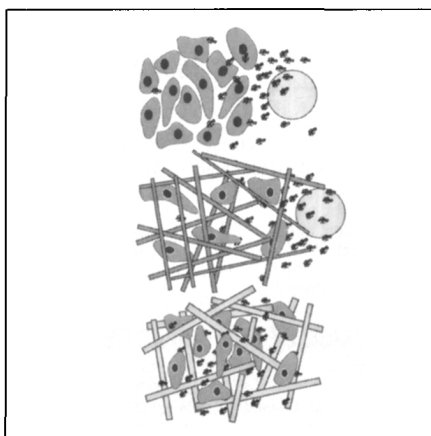
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ON THE COVER: Polymeric materials for growth-factor delivery to encourage regrowth or regeneration of biological tissues. TOP: Growth factor is released from a solid polymer matrix or microsphere into tissue at the desired site. CENTER: Growth factor is released from a solid polymer matrix in conjugation with a polymeric scaffold to direct attachment, migration, or assembly of cells. BOTTOM: Growth-factor release is provided directly by the supporting polymer-scaffold material. Fibrous polymer-scaffold materials are shown in the center and bottom figures, but highly porous foams may be useful as well. Cells, represented in pink and blue, may be present at the tissue location or transplanted with the polymer material. The gray regions indicate controlled-release polymers, the green regions indicate adhesive polymer scaffolds, and the black symbols represent diffusing growth factors. For more information, see "Growth-Factor Delivery in Tissue Engineering" by W. Mark Saltzman on page 62.

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The Materials Research Society (MRS), a non-profit scientific association founded in 1973, promotes interdisciplinary goal-oriented basic research on materials of technological importance. Membership in the Society includes over 12,000 scientists, engineers, and research managers from industrial, government, and university research laboratories in the United States and nearly 50 countries.

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