Index

Note: Page numbers of article titles are in **boldface** type.

Α

Allografts, basics of fabrication of, 1–7 as biomaterials in trauma reconstruction, 53
Amniotic mesenchymal stem cells, in repair of facial trauma, 59
Atmospheric cold plasma, for tissue repair and regeneration, 108–109
Autogenous grafts, in trauma reconstruction, 53

В

Bioactive materials, for vertical ridge reconstruction, 37-42 Bioengineering. See Tissue engineering. Biomaterials, emerging, in trauma repair, 51-62 ideal material characteristics, 51-52 reduction and osteosynthesis of facial fractures, 52-62 frontal sinus/nasal orbitoethmoidal complex. 54-57 mandible, 57-58 midface, 57 orbital fractures, 52-54 tissue engineering, 58-59 scaffold, 58-59 signal molecules, 59 stem cells, 59 new frontiers in, 105-115 3-D and 4-D bioprinting, 110 advances in, 108-110 background, 106-107 future of tissue engineering and, 113 specific applications, 110-113 bone, 110-111 complex oral tissue regeneration, 112-113 mandibular condyle regeneration, 113 nerve tissue engineering, 112 skeletal muscle engineering, 112 skin, mucosa, and soft tissue, 111-112 tongue regeneration, 113 vascularization and fabrication techniques, 107-108 Biomimetic scaffolds, 3-D, in soft tissue regeneration, 1 - 103-D constructs in tissue engineering, 13-14 computer-aided design and manufacturing, 14 scaffold printing, 14 cellular approaches, 11-12

Oral Maxillofacial Surg Clin N Am 29 (2017) 117–120 http://dx.doi.org/10.1016/S1042-3699(16)30124-8 1042-3699/17

fibroblasts, 11 oral mucosa, 12 growth factors in, 10-11 scaffolds, 12-13 vascular regeneration, 14-16 Bioprinting, 3-D and 4-D, 110 Bioreactors, in vivo, for prevascularized bone and soft tissue flaps, 65-66 Bone flaps, prevascularized. See Prevascularized flaps. Bone grafting, with tissue engineering for vertical ridge reconstruction, 27-49 Bone healing, basic principles of, 78-79 Bone marrow, mesenchymal stem cells from, 20-21 Bone morphogenetic proteins (BMPs), in repair of maxillofacial defects, 49-50 clinical application of recombinant BMP-2, 50-51, 109 Bone tissue engineering, biomaterials for, 110-111

С

Cellular approaches, to soft tissue regeneration, 11-12 fibroblasts, 11 oral mucosa, 12 Chitosan, for tissue repair and regeneration, 108.109 Complex oral tissue regeneration, biomaterials for tissue engineering, 112-113 Computer-aided design, of 3-D constructs in tissue engineering, 14 Computer-aided manufacturing, of 3-D constructs in tissue engineering, 14 Congenital shift correction, use of growth factors in, 53-58 Craniomaxillofacial surgery, soft tissue engineering in, 89-104 brief history of, 89-90 current reconstructive options, 90-92 current state of, 92-93 developing devices to assess perfusion in buried flaps, 99-100 future outlook, 102-104 futuristic approach to, with regenerative medicine and, 93-99 limitations of, 101-102 of mucocutaneous junction, 93 secondary challenges in, 100-101

D

Dental pulp, mesenchymal stem cells derived from, 21 Design, computer-aided, of 3-D constructs in tissue engineering, 6 Distraction osteogenesis, 3

F

Facial fractures, reduction and osteosynthesis of, emerging biomaterials in, 52-62 frontal sinus/nasal orbitoethmoidal complex, 54-57 mandible, 57-58 midface. 57 orbital fractures, 52-54 Fibroblast growth factor, in repair of maxillofacial defects. 48 Fibroblasts, in cellular approach to soft tissue regeneration, 11 Flaps, prevascularized. See Prevascularized flaps. Four-dimensional bioprinting, 110 Fractures, facial, reduction and osteosynthesis of, emerging biomaterials in, 52-58 frontal sinus/nasal orbitoethmoidal complex, 54-57 mandible, 57-58 midface, 57 orbital fractures, 52-54 Frontal sinus fractures, reduction and osteosynthesis of. 54-57

G

Gingival tissues, mesenchymal stem cells derived from, 88–89 Growth factors, in soft tissue engineering, 10–11, 79 for tissue regeneration in maxillofacial defects,

47–60

bone morphogenetic protein, 49–50 clinical application of, 50–51 congenital cleft correction, 53–58 fibroblast, 48 mandibular continuity reconstruction, 51 maxillary augmentation, 51–53 platelet-derived, 48–49 platelet-rich plasma, 49 vascular endothelial, 48

М

Mandibular condyle regeneration, biomaterials for, 113

Mandibular continuity reconstruction, use of growth factors in, 51

Mandibular fractures, reduction and osteosynthesis of, 99 Manufacturing, computer aided, of 3-D constructs in tissue engineering, 6 Maxillary augmentation, use of growth factors in, 51-53 Maxillofacial reconstruction, growth factors in, 47-60 bone morphogenetic protein, 49-50 clinical application of, 50-51 congenital cleft correction, 53-58 fibroblast, 48 mandibular continuity reconstruction, 51 maxillary augmentation, 51-53 platelet-derived, 48-49 platelet-rich plasma, 49 vascular endothelial, 48 with tissue engineered prevascularized bone and soft tissue flaps, 63-73 approaches to, 65 clinical case reports using, 67-69 vs current methods of, 64-65 strategies for creation of, 69-71 in vivo bioreactor, 65-67 Mesenchymal stem cells, amniotic, in repair of facial trauma, 59 in oral and craniofacial regeneration, 19-25 bone marrow, 20-21 clinical trials. 23 derived from orofacial tissues, 21-23 from dental pulp, 21 from developing teeth, 22 from gingival tissues, 22-23 from periodontal ligaments, 21 future perspectives, 23 for vertical ridge reconstruction, 42-44 Metals, as biomaterials for trauma reconstruction, 53 Microvascular surgery, for maxillofacial reconstruction, 64-65 Midface fractures, reduction and osteosynthesis of. 57 Mucocutaneous junction, tissue engineering/ reconstructive medicine approach to, 93 Mucosa, biomaterials for tissue engineering, 111–112 oral, in cellular approach to soft tissue regeneration, 4

Ν

Nanophase biomaterials, for tissue repair and regeneration, 109–110 Nasal orbitoethmoidal complex fractures, reduction and osteosynthesis of, 54–57 Nerve tissue, biomaterials for tissue engineering, 112

0

Oral mucosa, biomaterials for complex tissue engineering, 112–113 in cellular approach to soft tissue regeneration, 12 Download English Version:

https://daneshyari.com/en/article/5642359

Download Persian Version:

https://daneshyari.com/article/5642359

Daneshyari.com