

Patent Selections:

The patents annotated in this section have been selected from various patent collections. They are recent patents categorized by medical imaging, bioinformatics, image processing, biomaterials, pharmaceutical drugs, bioengineering, medical devices, design, biological devices, biomechanics, diagnostic devices, imaging instruments and are related to biomedical engineering and are relevant to the articles published in this journal issues.

TISSUE ENGINEERING

1. Athanasiou, K.A., Hu, J.C. Scaffoldless constructs for tissue engineering of articular cartilage. *EPI1819290 (2007)*.
2. Madry, H., Vunjak-Novakovic, G., Trippel, S.B., Freed, L.E., Langer, R. Tissue engineering enhanced by the transfer of a growth factor gene. *US20077252982 (2007)*.
3. Kusanagi, A., Tarrant, L.J.B., Schmidt, M.B. Acellular matrix implants for treatment of articular cartilage, bone or osteochondral defects and injuries and method for use thereof. *US20077217294 (2007)*.
4. Eggers, P.E., Thapliyal, H.V.: System for treating articular cartilage defects. *US20077201750 (2007)*.
5. Beam, H., Serafica, G., Damien, C., Wright, F.S. Implantable microbial cellulose materials for various medical applications. *WO07064772 (2007)*.
6. Serafica, G., Damien, C., Wright, F.S. Beam heather implantable microbial cellulose materials for various medical applications. *EPI1795213 (2007)*.
7. Lundgren-Akerlund, E., Kjellman, C. Expansion and differentiation of mesenchymal stem cells. *WO07099337 (2007)*.
8. Ikegawa, S., Kizawa, H., Mototani, H. Bone/joint disease sensitivity gene and use thereof. *EPI1780276 (2007)*.
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10. Lewandrowski, K.-U., Gresser, J.D., Wise, D., Bondre, S., Trantolo, D.J., Cattaneo, M.V. Osteoinduction of cortical bone allografts by coating with biopolymers seeded with recipient periosteal bone cells. *EPI1795214 (2007)*.
11. Vasios, G. JAK/STAT pathway inhibitors and the uses thereof. *EPI1782800 (2007)*.
4. Mcdaniel, D.H. Method and apparatus for acne treatment using low intensity light therapy. *WO07103132 (2007)*.
5. Altshuler, G.B., Tuchin, V.V. Multi-directional oral phototherapy applicator. *US20077223281 (2007)*.
6. Altshuler, G.B., Yaroslavsky, I., Cho, J.S., Wilson, S., O'shea, L., Belikov, A.V. Photocosmetic device. *WO07106339 (2007)*.
7. Harats, D., Greenberger, S., Breitbart, E., Bangio, L., Peled, M. Promoters exhibiting endothelial cell specificity and methods of using same for regulation of angiogenesis. *WO07096882 (2007)*.
8. Weissleder, R., Tung, C.-H., Choi, Y. Intramolecularly quenched fluorochrome conjugates and methods of use. *WO07109364 (2007)*.
9. Neuberger, W., Castro, D., Albrecht, V. Photodynamic cosmetic procedure and healing method. *WO07084468 (2007)*.
10. Nielsen, B., Frederiksen, J.M.B., Larsen, T., Jepsen, E.L., Hvid, N., Budig, K. Device, pump and system for stimulating the healing of a wound. *WO07087809 (2007)*.
11. Tanaka, D. Methods and devices to accelerate wound healing in thoracic anastomosis applications. *EPI1834596 (2007)*.

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1. Amis, A., Edwards, A. Reconstruction of anterior cruciate ligaments. *WO07107697 (2007)*.
2. Weber, J., Atanasoska, L., Eidenschink, T. Corrosion resistant coatings for biodegradable metallic implants. *WO07111811 (2007)*.
3. Nataraj, C., Ritter, G., Sander, T. Stabilized, sterilized collagen scaffolds with active adjuncts attached. *WO07109180 (2007)*.
4. Vange, J., Schwach-Abdellaoui, K., Everland, H., Nielsen, P., Sylvest, N.B., Jespersen, L.K., Nielsen, L.F. Degradable hydrophilic block copolymers with improved biocompatibility for soft tissue regeneration. *WO07101443 (2007)*.
5. Athanasiou, K.A., Hoben, G., Koay, E.J., Hu, J. Tissue engineering with human embryonic stem cells. *WO07115337 (2007)*.
6. Itskovitz-Eldor, J., Cohen, S. Adult stem cell-derived connective tissue progenitors for tissue engineering. *WO07080591 (2007)*.
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2. Altshuler, G.B., Tuchin, V.V. Light emitting toothbrush for oral phototherapy. *US20077223270 (2007)*.
3. Kennedy, J. Therapy device and system and method for reducing harmful exposure to electromagnetic radiation. *WO07090256 (2007)*.

8. Athanasiou, K.A., Hu, J., Aufderheide, A. Shape-based approach for scaffoldless tissue engineering. **WO07115336 (2007)**.
9. Ying, J.Y., Leck, K.J., Wan, A.C.A. Three-dimensional reconstituted extracellular matrices as scaffolds for tissue engineering. **WO07064305 (2007)**.
10. Lewandowski, K.-U., Gresser, J.D., Wise, D., Bondre, S., Trantolo, D.J., Cattaneo, M.V. Osteoinduction of cortical bone allografts by coating with biopolymers seeded with recipient periosteal bone cells. **EP1795214 (2007)**.
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12. Park, Y.-J., Chung, C.-P., Lee, S.-J., Lee, J.-Y. Bone graft and scaffolding materials immobilized with type collagen binding peptides. **WO07089084 (2007)**.
3. Dosev, D., Talwar, V., Nichkova, M., Kennedy, I. Microchannel magneto-immunoassay. **WO07089564 (2007)**.
4. Natan, M.J. Surface-enhanced spectroscopy-active composite nanoparticles **EP1804053 (2007)**.
5. Pyun, J. Multifunctional polymer coated magnetic nanocomposite materials. **WO07106771 (2007)**.
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7. Berneth, H., Hoheisel, W., Neigl, R., Womelsdorf, H. Electrochromic device with nanoparticles and UV-absorbers in the protective coating. **US20077190506 (2007)**.
8. Reddy, D. Nanoparticle sensitized nanostructured solar cells. **WO07098378 (2007)**.
9. Aiello, R., Maione, U., Pasqua, L., Testa, F. Preparation of micro or nano systems based on inorganic oxides with controlled porosity for carrying biologically active or activable substances. **WO07108016 (2007)**.
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1. Phee, S.J.L., Low, S.C., Tang, S., Ho, K.Y., Chung, S.C. Surgical robotic system for flexible endoscopy. **WO07111571 (2007)**.
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3. Shimizu, J., Trovato, K. Electronic gastrointestinal screening. **WO07066288 (2007)**.
4. Bettesh, I., Khait, S., Nisani, M., Gilad, Z. *in vivo* Sensing device and method for communicating between imagers and processor thereof. **WO07113801 (2007)**.
5. Klein, C., Gassman, A.D., Bhoite, L., Manfredi, J. Compounds for diseases and disorders. **WO07115306 (2007)**.
6. Cooper, D.G., Forbes, I.T., Garzya, V., Jin, J., Louchart, Y., Walker, G., Wyman, P.A. Benzimidazoles which have activity at M1 receptor and their uses in medicine. **WO07107566 (2007)**.
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8. Hadani, R., Katsumi, O. Controllable endoscope. **WO07086073 (2007)**.
9. Thorpe, P.E., Ran, S. Selected antibody CDRS for binding to aminophospholipids. **US20077247303 (2007)**.

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1. Jovanovic, A.V., Duran, R.S. Core-shell nanocapsules and applications thereof. **WO07112356 (2007)**.
2. Banerjee, S., Podual, K., Seul, M. Directed assembly of functional heterostructures. **US20077262063 (2007)**.

POLYMERIC NANOCARRIERS

1. Topass, G., Pison, U. Multimodal imaging using a three compartment polymer nanoparticle with cell specificity. **WO07093451 (2007)**.
2. Boyd, B.J., Kaminskis, L.M., Porter, C.J.H., Karellas, P., Krippner, G.Y., Kelly, B.D., Wu, R.P., Pallich, S. Modified macromolecule. **WO07082331 (2007)**.
3. Alverdy, J.C., Moss, J., Lingen, M.W., Singleton, P.A., Garcia, J.G.N. Modulation of cell barrier dysfunction. **WO07053194 (2007)**.
4. Pompejus, M., Kroger, B., Schroder, H., Zelder, O., Haberhauer, G. Polynucleotides encoding a 6-phosphogluconolactonase polypeptide from *Corynebacterium glutamicum*. **US20077270984 (2007)**.
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6. Vandyk, A.K., Lorah, D.P. Colorants, dispersants and dispersions containing polymeric nanoparticles. **US20077273842 (2007)**.
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8. Reddy, S.T., Hubbel, J.A., Swartz, M.A., Van, D.V.A. Nanoparticles for immunotherapy. **WO07098254 (2007)**.
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- manufacture containing crosslinked nanoparticles. *US20077244775 (2007)*.
10. Lian, K., Wu, Q. Carbon-encased metal nanoparticles and sponges, methods of synthesis, and methods of use. *WO07095454 (2007)*.
 11. Hempenius, M., Vansco, G.J., Schutte, H. Novel monomeric and polymeric materials. *WO07082919 (2007)*.
 12. Mirkin, C.A., Letsinger, R.L., Mucic, R.C., Storhoff, J.J., Elghanian, R. Nanoparticles having oligonucleotides attached thereto and uses therefore. *EP1818417 (2007)*.

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2. Jorgensen, J.W. TCP/IP packet-centric wireless transmission system architecture. *EP1796304 (2007)*.
3. Metz, J.G., Kuner, J.M., Lippmeier, J.C. Polyunsaturated fatty acid production in heterologous organisms using PUFA polyketide synthase systems. *WO07106903 (2007)*.
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5. Metz, J.G.: Plant seed oils containing polyunsaturated fatty acids. *WO07106904 (2007)*.
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7. Lindskog, P., Newcombe, A. Distributed communications network management and control system. *EP1833266 (2007)*.
8. Alluis, B., Fruchart, J.-S. Cell penetrating peptide conjugates for delivering of nucleic acids into a cell. *WO07069068 (2007)*.
9. Rana, T.M. RNA interference agents for therapeutic use. *WO07092182 (2007)*.
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ELECTROSPUN BIOMEDICAL NANOSTRUCTURES

1. Schewe, S.R., Zorowski, M.L., Atanasoska, L.L., Warner, R.W. Spun nanofiber, medical devices, and methods. *WO07117296 (2007)*.
2. Fournel, F., Dijon, J., Mur, P. Process to create an array of stress fields on a substrate for nucleation and growth of nanostructures. *EP1810948 (2007)*.
3. Verhulst, A., Baets, R., Brongersma, S., Maex, K., Van, T.D., Van, C.J. A semiconductor laser comprising elongate nanostructures. *EP1804350 (2007)*.
4. Wright, A.C. Nanostructures. *EP1812630 (2007)*.
5. Dai, S., Liang, C. Highly ordered porous carbon materials having well defined nanostructures and method of synthesis. *EP1812342 (2007)*.
6. Stumbo, D., Empedocles, S., Leon, F., Parce, J.W. Artificial dielectrics using nanostructures. *EP1795055 (2007)*.
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