

# CURRICULUM VITAE

## (April 2023)



### Personal Information

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### Education

Postdoc	2002-2003	Middle East Technical University Graduate School of Natural and Applied Sciences Department of Biotechnology, Ankara
Predocctoral Fellow	1998-1999	University of Texas, MD Anderson Cancer Center, Section of Immunobiology and Fellow Drug Carriers, Houston, Texas, USA
PhD	1996- 2002	“Bone tissue generation on biodegradable polymeric scaffold”, Middle East Technical University Graduate School of Natural and Applied Sciences Department of Biotechnology, Ankara
MSc	1994-1996	“Changing the liposomal surface properties by means of low molecular weight heparin”, Middle East Technical University Graduate School of Natural and Applied Sciences, Department of Biotechnology, Ankara
BSc (Honours)	1990-1994	Middle East Technical University Faculty of Arts and Sciences, Department of Biology, Ankara

### Academic Experience

1. Prof., Faculty of Engineering and Architecture, Department of Genetics and Bioengineering, Yeditepe University, Istanbul, TR 2012 +
2. Visiting Scientist, University of Texas, MD Anderson Cancer Center, Division of Cancer Medicine, Department of Experimental Therapeutics, Houston, Texas, USA 2008
3. Member of the Foundation Committee of Turkish Biomaterials and Tissue Engineering Society 2008 +
4. Associate Prof., Faculty of Engineering and Architecture, Department of Genetics and Bioengineering, Yeditepe University, Istanbul 2006-2012

5. Assistant Prof., Faculty of Engineering and Architecture, Department of Genetics and Bioengineering, Yeditepe University, Istanbul 2004-2006
6. Assistant Prof., Faculty of Pharmacy, Yeditepe University, Istanbul 2003-2004
7. Research and Teaching Assistant, Middle East Technical University, Department of Biology, Ankara 1994- 2002

### **Administrative Experience**

1. Elected member of Yeditepe University Ethical Board of Animals 2006 – 2007; 2016+
2. The Scientific and Technological Research Council of Turkey (TÜBİTAK) Advisory Panel Member on Biomaterials 2015-2016
3. Elected member of Yeditepe University Faculty of Engineering Board 2010-2012; 2014+.
4. Yeditepe University Journal of Corporate Communications Advisory Committee Member Representing Faculty of Engineering 2012-2015
5. **Vice chair of Department of Genetics and Bioengineering**, Yeditepe University, Istanbul, March 2010+
6. Member of the Commission of Departmental Lecture Programming 2008+
7. Elected member of Yeditepe University Faculty of Engineering and Architecture Executive Board 2008-2011
8. Elected member of the Faculty of Pharmacy Administrative Council 2003

### **Awards**

1. Best Oral Presentation Award by 19. Medical Surgery Endocrinology Scientific Committee. The presentation entitled “Production of Injectable Sizes of Micro Alginate Capsules for Parathyroid Cell Transplantation without Surgical Intervention” Ö.Karabıyık Acar, H.Başer, A.A.Tuncer, G.D.Nuzhetzadeh, M.Keğın, E.Hacıhasanoğlu, **G.T.Köse**, F.Şahin, E.Ayşan, Oct 2021.
2. Best PhD Thesis of the Year at Istanbul Technical University (ITU) Award for Görke Gürel Peközer, Assoc.Prof. Dr. Fatma Neşe Kök (Advisor), **Prof. Dr. Gamze Torun Köse** (Co-advisor), Dental stem cell mediated bone tissue engineering using porcine model, 2018
3. Excellent Poster Award by the 2017 ISOMRM International Symposium of Materials on Regenerative Medicine Scientific Committee. The poster entitled “Bone tissue engineering potential of vasculogenesis inducing biphasic scaffold” by G.Torun Köse, Gorke Gurel Pekozer, Nergis Abay 2017

4. Poster Award by the BIOMED 2017 Scientific Committee. The poster entitled “Potential Applications of PLLA:PBS Sponges in Neural Tissue Engineering” by İ.A.Kanneci-Altınışık, D.Yücel, F.N.Kök, **G.Torun Köse** 2017.
5. 2017 First place in the ranking of academic evaluation results of Academic members of Yeditepe University, Faculty of Engineering.
6. 2016 First place in the ranking of academic evaluation results of Academic members of Yeditepe University, Faculty of Engineering.
7. 2015 First place in the ranking of academic evaluation results of Academic members of Yeditepe University, Faculty of Engineering.
8. Best PhD Thesis of the Year at Istanbul Technical University (ITU) Award for Perihan Selcan Güngör Özkerim, Assoc.Prof. Dr. Fatma Neşe Kök (Advisor), **Prof. Dr. Gamze Torun Köse** (Co advisor), Design of Bioactive Scaffold System for Hard Tissue Engineering, 2014
9. Feyzi Akkaya (FABED) Successful Young Scientist Award, “Bone Tissue Formation from Dental Pulp Stem Cells on PBS Scaffolds” 2011
10. L’Oreal Turkey, 2011 Young Woman Scientist Award, “Nerve Regeneration on A System Consisting of PLGA tubes and Laminin-1-Collagen Nanofibers” 2011
11. 2008-2009 Academic year Middle East Technical University (METU) Best Thesis Award Winner as Ph.D. Thesis Co-Supervisor of Halime Kenar
12. 2008-2009 Academic year Middle East Technical University (METU) Best Thesis Award Winner as Ph.D. Thesis Co-Supervisor of Deniz Yücel
13. Best PhD Thesis of the Year at Middle East Technical University (METU) Award by the Prof. M. Parlar Foundation 2002
14. Best MSc Thesis of the Year at Middle East Technical University (METU) Award by the Prof. M. Parlar Foundation 1997
15. Best Poster Award by the BIOMED 2002 Scientific Committee. The poster entitled “Guided Tissue Engineering on Semisynthetic Polymer Surfaces” by H.Kenar, **G.T.Köse**, V.Hasırcı 2002.
16. ESB 2002 Young Scientist Fellowship Award by the European Society for Biomaterials 2002

### **Research Interests**

- Tissue engineering (Bone, Cartilage, Nerve),
- Organoid research (Parathyroid, Thyroid),
- Biomaterials and Surface Modification,
- Stem Cells (Bone marrow, Adipocyte, Amniotic, Dental Follicle, Dental Pulp, Dental Germ),
- Drug or Growth Factor Release Systems

## Patents/Applications

1. E.Can, G.Cemali, **G.Torun Köse**, Tissue Engineered Scaffold Production Procedure (European Patent), Application no: 16192013.7-1109, Patent no: **EP3153187**
2. G.Gürel Peközer, N.Abay, **G.Torun Köse**, Design of PLGA polymer as a scaffold by wet spinning method at different concentrations and different water baths (Description), 2017 (Application no 2017/13470, 13.09.2017)
3. Ö.Karabiyik Acar, B.Kayıtmazer, **G.Torun Köse**, Production and fabrication of tissue scaffolds with cell encapsulation capacity for tissue engineering using complex coacervation technique with chitosan (KT) and hyaluronic acid (HA) polymers (Description), 2017 (Application no 2017/13643, 15.09.2017)
4. A.C.Çalıkoğlu Koyuncu, D.Telci, **G.Torun Köse**, Growth and differentiation of tissue transglutaminase-transduced rat mesenchymal stem cells on three-dimensional poly (1,4-butylene succinate)/poly (L-lactic acid) tissue scaffolds by lentiviral transduction (Description), 2017 (Application no 2017/14838, 03.10.2017)
5. M.E.Ayşan, F.Şahin, **G.Torun Köse**, Cell and tissue transplantation without the need for suppression of the immune system by entering the cartilage tissue with a cannula, (Description), 2019 (Application no 2019/11975, 06.08.2019), PCT Application date 05.08.2020
6. M.Ürgen, M.K.Kazmanlı, F.N.Kök, Y.Öztürk, E.Kaçar, **G.Torun Köse**, K.Sabouni, S.Solakoğlu, H.S.Mutlu, S.Önder, Osteosynthesis/osteointegration accelerating magnesium and/or strontium added coatings, (Description), 2019 (Application no 2019/11986, 06.08.2019), PCT/TR2020/050692
7. E.İ.Bektaş Taş, G.Gürel Peközer, F.N.Kök, A.Ö.Aytekin, **G.Torun Köse**, The production method of cryogels from natural biomaterials and the use of these cryogels as soft tissue scaffolds or drug delivery systems, (Description), 2019 (Application no 2019/14116, 17.09.2019)

## Publications

1. Karabiyik Acar, Ö., Nozhatzadeh, G.D., Tuncer, A., **Torun Köse, G.**, Hacıhasaoğlu, E., Sahin, F., Aysan, E., Production of parathyroid-like cells from thyroid stem cells in co-culture environment, *Medicine*, 101(48), pp. E32009, 2022
2. Erçal, P., Çayır, F., Gürel Peközer, G., **Torun Köse, G.**, Osteo/odontogenic differentiation analysis of dental stem cells from tooth germ, apical papilla, and dental follicle, *Oral Science International*, <https://doi.org/10.1002/osi2.1136>, 19(3), pp. 180–192, 2022
3. Büyük, N.İ., Tüfekçi, K., Cumbul, A., Aysan, E., **Torun Köse, G.\***, A novel method for providing scaffold: decellularization of parathyroid capsule, *Journal of Biomaterials Applications*, 36(7), 1201-1212, 2022

4. Büyük, N.İ., Aksu, D., **Torun Köse, G.\***, Effect of different pore sizes of 3D printed PLA-based scaffold in bone tissue engineering, *International Journal of Polymeric Materials and Polymeric Biomaterials*, doi: 10.1080/00914037.2022.2075869, 2022
5. Beker, M.Ç., Beker, M., Çağlayan, A.B., Bolat, B., Kılıç, Ü., **Torun Köse, G.**, Kılıç, E., Striatal dopaminergic neurons as a potential target for GDNF based ischemic stroke therapy, *Turkish Journal of Medical Sciences*, 52(1), 248-257, 2022
6. Bektas, E.I., Gurel Pekozer, G., Kok, F.N., **Torun Köse, G.\***, Evaluation of natural gum-based cryogels for soft tissue engineering, *Carbohydrate Polymers*, 271, 10.1016/j.carbpol.2021.118407, 2021
7. Karabiyik Acar, Ö., Bedir, S., Kayitmazer, A.B., **Torun Köse, G.\***, Chondro-inductive hyaluronic acid/chitosan coacervate-based scaffolds for cartilage tissue engineering, *International Journal of Biological Macromolecules*, 188, 300-312, 2021
8. Ramazanoglu, M., Moest, T., Siraneci Ercal, P., Polyviou, Z., Herrmann, K., Gurel Pekozer, G., Molenberg, A., Lutz, R., **Torun Köse, G.**, Neukam, F.W., Schlegel, K.A., The effect of polyethyleneglycol gel on the delivery and osteogenic differentiation of homologous tooth germ-derived stem cells in a porcine model, *Clinical Oral Investigation*, 25(5), 3043–3057, 2021
9. Gurel Pekozer, G., Abay Akar, N., Cumbul, A., Beyzadeoglu, T., **Torun Köse, G.\***, Investigation of Vasculogenesis Inducing Biphasic Scaffolds for Bone Tissue Engineering, *ACS Biomaterials Science and Engineering*, 7(4), pp. 1526–1538, 2021
10. Sabouni, K., Ozturk, Y., Kacar, E., Mutlu, H.S., Solakoglu, S., **Torun Köse, G.**, Kok, F.N., Kazmanli, M.K., Urgen, K.M., Onder, S., Assessment of Bone Healing Using (Ti,Mg)N Thin Film Coated Plates and Screws: Rabbit Femur Model, *Journal of Biomedical Materials Research: Part B - Applied Biomaterials*, 109(2), 227-237, 2021
11. Cemali, G., Aruh, A., **Torun Köse, G.**, Can, E., Biodegradable Polymeric Networks of Poly(propylene fumarate) and Phosphonic Acid Based Monomers, *Polymer International*, 69(12), 1283-1296, 2020
12. Beker, M., Caglayan, A.B., Beker, M.C., Altunay, S., Karacay, R., Dalay, A., Altintas, M.O., **Torun Köse, G.**, Hermann, D.M., Kilic, E., Lentivirally administered glial cell line-derived neurotrophic factor promotes post-ischemic neurological recovery, brain remodeling and contralesional pyramidal tract plasticity by regulating axonal growth inhibitors and guidance proteins, *Experimental Neurology*, 331, 113364, 2020
13. Calikoglu-Koyuncu, A.C., Nayman, H., Telci, D., **Torun Köse, G.\***, Tissue Transglutaminase\_Variant 2-Transduced Mesenchymal Stem Cells and Their Chondrogenic Potential, *Biotechnology and Bioengineering*, 117 (6), 1839-1852, 2020
14. Atasoy-Zeybek, A., Ivkovic, A., Beyzadeoglu, T., Ona, A., Evans, C.H., **Torun Köse, G.\***, Paracrine effects of living human bone particles on the osteogenic differentiation of mesenchymal stem cells, *European Cells and Materials*, 38, 14-22, 2019

15. Kenar, H., Ozdogan, C.Y., Dumlu, C., Dogere, E., **Torun Köse, G.**, Hasirci, V., Microfibrous scaffolds from poly(L-lactide-co- $\epsilon$ -caprolactone) blended with xeno-free collagen/hyaluronic acid for improvement of vascularization in tissue engineering applications, *Materials Science & Engineering C*, 97, 31-44, 2019
16. Abay Akar, N., Gürel Peközer, G., **Torun Köse, G.\***, Fibrous bone tissue engineering scaffolds prepared by wet spinning of PLGA, *Turkish Journal of Biology*, 43(4), 235-245, 2019
17. Erkal Ilhan, S., Kurkcuoglu, O., Inan, T., Guner, O.Z., Dalgakıran, D., Okutan, B., **Torun Köse, G.**, Kirmizi, A., Okçu Heper, A., Gurses, O., Guner, F.S., Preparation and Determination of In Vivo and In Vitro Performance of Doxycycline-Imprinted Contact Lenses for Corneal Neovascularization Treatment, *Journal of the Turkish Chemical Society, Section A: Chemistry (JOTCSA)*, 5(3), 1185-1192, 2018
18. Kulan, P., Karabiyik, O., **Torun Köse, G.**, Kargul, B., The Effect of Accelerated Mineral Trioxide Aggregate on Odontoblastic Differentiation in Dental Pulp Stem Cell Niches, *International Endodontic Journal*, 51(7), 758-766, 2018
19. Aydogan, D.T., Muhaffel, F., Acar, O.K., Topcuoglu, E.N., Kulekci, H.G., **Torun Köse, G.**, Baydogan, M., Cimenoglu, H., Surface modification of Ti6Al4V by micro-arc oxidation in AgC<sub>2</sub>H<sub>3</sub>O<sub>2</sub>-containing electrolyte, *Surface Innovations*, 6(4-5), 277-285, 2018
20. Acar, O.K., Kayıtmazer, A.B., **Torun Köse, G.\***, Hyaluronic Acid/Chitosan Coacervate-Based Scaffolds, *Biomacromolecules*, 19(4), 1198-1211, 2018
21. Pekozer, G.G., Ramazanoglu, M., Schlegel, K.A., Kok, F.N., **Torun Köse, G.\***, Role of STRO-1 sorting of porcine dental germ stem cells in dental stem cell-mediated bone tissue engineering, *Artificial Cells, Nanomedicine and Biotechnology*, 46(3), 607-618, 2018
22. Aydogan, D.T., Muhaffel, F., Kilic, M.M., Acar, O.K., Cempura, G., Baydogan, M., Karaguler, N.G., **Torun Köse, G.**, Czyska-Filemonowicz, A., Cimenoglu, H., Optimization of micro-arc oxidation electrolyte for fabrication of antibacterial coating on titanium, *Materials Technology*, 33(2), 119-126, 2018
23. Onder, S., Calıkoglu-Koyuncu, A.C., Kazmanlı, K., Urgan, M., Kok, F.N., **Torun Köse, G.\***, Magnesium doping on TiN coatings affects mesenchymal stem cell differentiation and proliferation positively in a dose-dependent manner, *Bio-Medical Materials and Engineering*, 29(4), 427-438, 2018
24. Sedlacik, T., Acar, O.K., Studenovska, H., Kotelnikov, I., Kucka, J., Konecna, Z., Zikmund, T., Kaiser, J., **Torun Köse, G.**, Rypacek, F., Chondrogenic potential of macroporous biodegradable cryogels based on synthetic poly(alpha-amino acids), *Soft Matter*, 14(2), 228-238, 2018
25. Buyuksungur, S., Tanır, T.E., Buyuksungur, A., Bektas, E.I., **Torun Köse, G.**, Yucel, D., Beyzadeoglu, T., Cetinkaya, E., Yenigun, C., Tonuk, E., Hasirci, V., Hasirci, N., 3D printed poly( $\epsilon$ -caprolactone) scaffolds modified with hydroxyapatite and poly(propylene fumarate) and their effects on the healing of rabbit femur defects, *Biomaterials Science*, 5(10), 2144-2158, 2017

26. Ercal, P., Pekozer, G.G., Gumru, O.Z., **Torun Köse, G.**, Ramazanoglu, M., Influence of STRO-1 Selection on Osteogenic Potential of Human Tooth Germ Derived Mesenchymal Stem Cells, *Archives of Oral Biology*, 82, 293-301, 2017
27. Onder, S., Koyuncu, A.C.C., **Torun Köse, G.**, Kazmanli, K., Kok, F.N., Urgen, M., Effect of magnesium and osteoblast cell presence on hydroxyapatite formation on (Ti,Mg)N thin film coatings, *The Journal of The Minerals, Metals & Materials Society (JOM)*, 69(7), 1195-1205, 2017
28. Svobodová, J., Proks, V., Karabiyik, O., Koyuncu, A.C.C., **Torun Köse, G.**, Rypáček, F., Studenovská, H., Poly(amino acid)-based fibrous scaffolds modified with surface-pendant peptides for cartilage tissue engineering, *Journal of Tissue Engineering and Regenerative Medicine*, 11(3), 831-842, 2017
29. Koyuncu, A.C.C., Pekozer, G.G., Ramazanoglu, M., **Torun Köse, G.\***, Hasirci, V., Cartilage tissue engineering on macroporous scaffolds using human tooth germ stem cells, *Journal of Tissue Engineering and Regenerative Medicine*, 11(3), 765-777, 2017
30. Altinisik, I.A.K., Kok, F.N., Yucel, D., **Torun Köse, G.\***, In vitro evaluation of PLLA/PBS sponges as a promising biodegradable scaffold for neural tissue engineering, *Turkish Journal of Biology*, 41(5), 734-745, 2017
31. Ertan, A.B., Kenar, H., Beyzadeoglu, T., Kok, F.N., **Torun Köse, G.\***, An in vitro human skeletal muscle model: co-culture of myotubes, neuron-like cells, and the capillary network, *Turkish Journal of Biology*, 41(3), 514-525, 2017
32. Atasoy, A., **Torun Köse, G.\***, Biology of cancellous bone graft materials and their usage for bone regeneration, *JSM Biotechnology & Biomedical Engineering*, 3(2), 1051, 2016
33. Pekozer, G.G., **Torun Köse, G.\***, Hasirci, V., Influence of co-culture on osteogenesis and angiogenesis of bone marrow mesenchymal stem cells and aortic endothelial cells, *Microvascular Research*, 108, 1-9, 2016
34. Eren, F., Oksuz, S., Kucukodaci, Z., Kendirli, M.T., Cesur, C., Alarcin, E., Bektaş, E.I., Karagöz, H., Kerimoglu, O., **Torun Köse, G.**, Ulkur, E., Gorantla, V., Targeted mesenchymal stem cell and vascular endothelial growth factor strategies for repair of nerve defects with nerve tissue implanted autogenous vein graft conduits, *Microsurgery*, 36(7), 578-585, 2016
35. Kulan, P., Karabiyik, O., **Torun Köse, G.**, Kargul, B., Biocompatibility of Accelerated Mineral Trioxide Aggregate on Stem Cells Derived from Human Dental Pulp, *Journal of Endodontics*, 42(2), 276-279, 2016
36. Abay, N., Pekozer, G.G., Ramazanoglu, M., **Torun Köse, G.\***, Bone formation from porcine dental germ stem cells on surface modified polybutylene succinate scaffolds, *Stem Cells International*, Article ID 8792191, doi:10.1155/2016/8792191, 2016
37. Onder, S., Koyuncu, A.C.C., Kazmanli, K., Urgen, M., **Torun Köse, G.\***, Kok, F.N., Behavior of mammalian cells on magnesium substituted bare and hydroxyapatite deposited (Ti,Mg)N coatings, *New Biotechnology*, 32(6), 747-755, 2015

38. Endogan, T., Kiziltay, A., **Torun Köse, G.**, Comunoglu, N., Beyzadeoglu, T., Hasirci, N., Acrylic bone cements: Effects of the poly(methyl methacrylate) powder size and chitosan addition on their properties, *Journal of Applied Polymer Science*, 131(3), 39662, 2014
39. Can, E., Bucak, S., Kinaci, E., Calikoglu, A.C., **Torun Köse, G.**, Polybutylene succinate (PBS) - polycaprolactone (PCL) blends compatibilized with poly(ethylene oxide)-block-poly(propylene oxide)-block-poly(ethylene oxide) (PEO-PPO-PEO) copolymer for biomaterial applications, *Polymer Plastics Technology and Engineering*, 53(11), 1178–1193, 2014
40. Karadas, O., Yucel, D., Kenar, H., **Torun Köse, G.**, Hasirci, V., Collagen scaffolds with in situ-grown calcium phosphate for osteogenic differentiation of Wharton's jelly and menstrual blood stem cells, *Journal of Tissue Engineering and Regenerative Medicine*, 8(7), 534-545, 2014
41. Ozkerim, P.S.G., Balkan, T., **Torun Köse, G.**, Sarac, A.S., Kok, F.N., Incorporation of growth factor loaded microspheres into polymeric electrospun nanofibers for tissue engineering applications, *Journal of Biomedical Materials Research Part A*, 102(6), 1897-1908, 2014
42. Ramazanoglu, M., Lutz, R., Rusche, P., Trabzon, L., **Torun Köse, G.**, Prechtel, C., Schlegel, K.A., Bone response to biomimetic implants delivering BMP-2 and VEGF: An immunohistochemical study, *Journal of Cranio-Maxillo-Facial Surgery*, 41(8), 826-835, 2013
43. Yenigun, V.B., Ozpolat, B., **Torun Köse, G.\***, Response of CD44<sup>+</sup>/CD24<sup>-low</sup> breast cancer stem/progenitor cells to tamoxifen- and doxorubicin-induced autophagy, *International Journal of Molecular Medicine*, 31(6), 1477-1483, 2013
44. Oksuz, S., Ulkur, E., Oncul, O., **Torun Köse, G.**, Kuçukodaci, Z., Urhan, M., The effect of subcutaneous mesenchymal stem cell injection on stasis zone and apoptosis in an experimental burn model, *Plastic and Reconstructive Surgery*, 131(3), 463-471, 2013
45. Ertan, A.B., Yilgor, P., Bayyurt, B., Calikoglu, A.C., Kaspar, C., Kok, F.N., **Torun Köse, G.\***, Hasirci, V., Effect of Double Growth Factor Release on Cartilage Tissue Engineering, *Journal of Tissue Engineering and Regenerative Medicine*, 7(2):149-60, 2013
46. Beyzadeoglu, T., **Torun Köse, G.**, Ekici, I.D., Bekler, H., Yilmaz, C., Cytotoxicity of local anesthetics to rats' articular cartilage: An experimental study, *Acta Orthopaedica et Traumatologica Turcica*, 46(4), 323, 2012
47. Sever, C., Uygur, F., **Torun Köse, G.**, Urhan, M., Haholu, A., Kulahci, Y., Oksuz, S., Cihan, S., Omer, O., Prefabrication of vascularized bone graft using an interconnected porous calcium hydroxyapatite ceramic in presence of vascular endothelial growth factor and bone marrow mesenchymal stem cells: Experimental study in rats, *Indian Journal of Plastic Surgery*, 45(3), 444-452, 2012



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49. Can, E., Udenir, G., Kanneci, A.I., **Köse, G.**, Bucak, S., Investigation of PLLA/PCL Blends and Paclitaxel Release Profiles, *AAPS PharmSciTech*, 12(4), 1442-1453, 2011
50. Demirbag, B., Huri, P.Y., **Torun Köse, G.**, Buyuksungur, A., Hasirci, V., Advanced cell therapies with and without scaffolds, *Biotechnology Journal*, 6(12), 1437-1453, 2011
51. Kenar, H., **Torun Köse, G.**, Toner, M., Kaplan, D.L., Hasirci, V., A 3D aligned microfibrinous myocardial tissue construct cultured under transient perfusion, *Biomaterials*, 32(23), 5320-5329, 2011
52. Cimenoglu, H., Gunyuz, M., **Torun Köse, G.**, Baydogan, M., Ugurlu, F., Sener, C., Micro-arc oxidation of Ti6Al4V and Ti6Al7Nb alloys for biomedical applications, *Materials Characterization*, 62(3), 304-311, 2011
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54. Yalvac, M.E., Ramazanoglu, M., Rizvanov, A.A., Sahin, F., Bayrak, O.F., Salli, U., Palotas, A., **Torun Köse, G.**, Isolation and characterization of stem cells derived from human third molar tooth germs of young adults: Implications in neo-vascularization, osteo-, adipo- and neurogenesis, *Pharmacogenomics Journal*, 10(2), 105-113, 2010
55. Kenar, H., **Torun Köse, G.**, Hasirci, V., Design of a 3D aligned myocardial tissue construct from biodegradable polyesters, *Journal of Materials Science: Materials in Medicine*, 21(3): 989-997, 2010
56. Yucel, D., **Torun Köse, G.**, Hasirci, V., Polyester based nerve guidance conduit design, *Biomaterials* 31(7), 1596-1603, 2010
57. Sever, C., Uygur, F., Kulahcı, Y., **Torun Köse, G.**, Urhan, M., Kucukodaci, Z., Uzun, G., Ipcioglu, O., Caycı, T., Effect of hyperbaric oxygen therapy on bone prefabrication in rats, *Acta Orthopaedica et Traumatologica Turcica*, 44(5), 403-409, 2010
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60. Kenar, H., **Torun Köse, G.**, Hasirci, V., Tissue engineering of bone on micropatterned biodegradable polyester films, *Biomaterials*, 27(6), 885-895, 2006
61. **Torun Köse, G.\***, Korkusuz, F., Ozkul, A., Soysal, Y., Ozdemir, T., Yildiz, C., Hasirci, V., Tissue engineered cartilage on collagen and PHBV matrices, *Biomaterials*, 26(25), 5187-5197, 2005

62. Ber, S., **Torun Köse, G.**, Hasirci, V., Bone tissue engineering on patterned collagen films: An in vitro study, *Biomaterials*, 26(14), 1977-1986, 2005
63. **Torun Köse, G.**, Korkusuz, F., Korkusuz, P., Hasirci, V., In vivo tissue engineering of bone using poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid) and collagen scaffolds, *Tissue Engineering*, 10(7-8), 1234-1250, 2004
64. **Torun Köse, G.**, Ber, S., Korkusuz, F., Hasirci, V., Poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid) based tissue engineering matrices, *Journal of Materials Science: Materials in Medicine*, 14(2), 121-126, 2003
65. **Torun Köse, G.**, Korkusuz, F., Korkusuz, P., Purali, N., Ozkul, A., Hasirci, V., Bone generation on PHBV matrices: An in vitro study, *Biomaterials*, 24(27), 4999-5007, 2003
66. **Torun Köse, G.**, Kenar, H., Hasirci, N., Hasirci, V., Macroporous poly(3-hydroxybutyrate-co-3-hydroxyvalerate) matrices for bone tissue engineering, *Biomaterials*, 24(11), 1949-1958, 2003
67. **Torun Köse, G.**, Korkusuz, F., Özkul, A., Ber, S., Kenar, H., Hasirci, V., Tissue engineering of bone using collagen and PHBV matrices, *Technology and Health Care*, 10(3-4), 299-301, 2002
68. **Torun Köse, G.**, Tezcaner, A., Hasirci, V., Fundamentals of tissue engineering: Carrier materials and an application, *Technology and Health care*, 10(3-4), 187-201, 2002
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<b>h-index (Scopus)</b>	<b>27</b>

### **Books and Book Chapters**

1. Büyük, N.İ., Aksu, D., **Torun Köse, G.**, Hydrogels Used in Cartilage Treatment, N.Hasirci (ed), 1. Edition. Ankara, (in press).
2. Bektaş Taş, E.İ., **Torun Köse, G.**, Nanomedicine: Genetic Therapy (Gene Transfer), Akın A, editor. Nanobiotechnology. 1. edition. Ankara: Türkiye Klinikleri; Online ISBN: 978-625-401-503-8, 2021. p.26-36.

3. Aksu, D., Büyük, N.İ., **Torun Köse, G.**, Nanotoxicology, Akın A, editor. Nanobiotechnology. 1. edition. Ankara: Türkiye Klinikleri; Online ISBN: 978-625-401-503-8, 2021. p.58- 66.
4. Atasoy-Zeybek, A., **Torun Köse, G.**, Gene Therapy Strategies in Bone Tissue Engineering and Current Clinical applications, In: Advances in Experimental Medicine and Biology, Springer, New York, NY, [https://doi.org/10.1007/5584\\_2018\\_253](https://doi.org/10.1007/5584_2018_253), 27 July 2018. ISSN 0065-2598 ISSN 2214-8019 (electronic) Advances in Experimental Medicine and Biology ISSN 2522-090X ISSN 2522-0918 (electronic) Cell Biology and Translational Medicine ISBN 978-3-030-10485-6 ISBN 978-3-030-10486-3 (eBook)
5. Ercal, P., Pekozer, G.G., **Torun Köse, G.**, Dental stem cells in bone tissue engineering: Current overview and challenges, Advances in Experimental Medicine and Biology- Cell Biology and Translational Medicine, Volume 3, Springer, DOI: 10.1007/5584\_2018\_171, ISBN 978-3-030-04185-4, 2018
6. Pekozer, G., **Torun Köse, G.**, Usage of Stem Cells in Bone and Cartilage Tissue Engineering in Nanomaterials, T.J.Webster and H.Yazici (ed), Biomedical Nanomaterials From Design to Implementation, The Institution of Engineering and Technology, London, UK, pg 93-107, ISBN: 978-1-84919-964-3, 2016
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9. Yucel, D., Kanneci, I.A., Arslantunali, D., **Torun Köse, G.**, Hasirci, V., Spinal Cord Injury: Tissue Engineering Using Neural Stem Cells, in: Stem Cells and Cancer Stem Cells, Therapeutic Applications in Disease and Injury, M.A. Hayat (ed.), Tumors of the Central Nervous System, Volume 10, 271-287, Springer Science+Business Media Dordrecht, 2013
10. **Torun Köse, G.**, Hasirci, V., Cartilage Tissue Engineering, in: Biomaterials: From Molecules to Engineered Tissues, N.Hasirci and V.Hasirci, Kluwer Plenum, London, UK, 553, 317-329, 2004
11. **Torun Köse, G.**, Hasirci, V., Polymeric Biodegradable Hard Tissue Engineering Applications, in: Tissue Engineering and Biodegradable Equivalents: Scientific and Clinical Applications, D.L. Wise, Marcel Dekker, Inc., U.S.A, pp.301-316, 2002

### **Other Publications**

1. F.Eren, S.Oksuz, Z.Kucukodaci, MT.Kendirli, C.Cesur, E.Alarcin, E.Bektas, H.Karagoz, OS. Kerimoglu, GT.Kose, E.Ulkur, Comparison of Nerve Defect Reconstructions Committed by Placing Vascular Endothelial Growth Factor (Vegf) or Mesenchymal Stem Cells into the Vein Graft Lumen in Conjunction with Nerve Fragments, *Journal of Reconstructive Microsurgery*, 30, S1, A028, 2014 (**Meeting Abstract**)

2. S.Demir, F.Sahin, G.Kose, Usage of bacterial cellulose/collagen scaffolds incorporated with Igf-I and TGF beta-1 genes for cartilage regeneration, *Journal of Tissue Engineering and Regenerative Medicine*, 8, 279-279, 2014 **(Meeting Abstract)**
3. GG.Pekozer, M.Ramazanoglu, KA.Schlegel, GT.Kose, Role of STRO-1 positive porcine dental germ stem cells in dental stem cell-mediated bone tissue engineering, *FEBS Journal*, 281(1), 234-234, 2014 **(Meeting Abstract)**
4. FN.Kok, S.Onder, AC.Calikoglu, K.Kazmanlı, M.Urgen, GT.Kose, Osteoblast cell proliferation on magnesium-substituted hydroxyapatite (Mg-HA) coatings, *New Biotechnology*, 31, S52-S53, 2014 **(Meeting Abstract)**
5. H.Studenovska, T.Sedlacik, V.Proks, O.Karabiyik, M.Ramazanoglu, GT.Kose, Porous polypeptide-based hydrogels as a matrices for stem cells attachment, *New Biotechnology*, 29, S57-S57, 20122014 **(Meeting Abstract)**
6. S.Oksuz, E.Ulkur, O.Oncul, GT.Kose, Z.Kucukodaci, M.Urhan, The Effect of Subcutaneous Mesenchymal Stem Cell Injection on Stasis Zone and Apoptosis in an Experimental Burn Model, *Plastic and Reconstructive Surgery*, 130, 5S-1, pg 70, 2012 **(Meeting Abstract)**
7. H. Kenar, GT.Kose, CC. Kesemenli, E.Karaoz, V.Hasirci, Generation of prevascularized muscle tissue constructs by coculture of skeletal muscle stem cells with endothelial cells, *Journal of Tissue Engineering and Regenerative Medicine*, 6:S11, 314, 2012 **(Meeting Abstract)**
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10. G.Kose, O.Karabiyik, CB.Sener, AI.Altun, Osteoblast cell adhesion on RBM and sand blasted acid etched titanium surfaces: preliminary results, *International Journal of Oral and Maxillofacial Surgery*, 40(10), 1136, 2011 **(Meeting Abstract)**
11. T.Beyzadeoglu, H.Bekler, I.Ekici, G.Kose, C.Yilmaz, Bupivacaine, levobupivacaine and tramadol are cytotoxic to rats'articular cartilage both in vivo and in vitro, *Orthopaedic Proceedings*, 92, 614-614, 2010 **(Meeting Abstract)**
12. D.Yucel, H.Kenar, GT.Kose, V.Hasirci, Mesenchymal stem cell behaviour on topographical cues, *Tissue Engineering Part A*, 15(5), 878-878, 2008 **(Meeting Abstract)**
13. ME.Yalvac, M.Ramazanoglu, OF.Bayrak, F.Sahin, GT.Kose, Multipotent stem cells derived from human dental follicle show osteogenic and neurogenic differentiation, *FEBS Journal*, 275, 91-91, 2008 **(Meeting Abstract)**

14. ME.Yalvac, OF.Bayrak, GT.Kose and F.Sahin, Neuron-like cells derived from human cervical cancer HeLa cells, *International Journal of Immunogenetics*, 34(4), 293-293, 2007 (**Meeting Abstract**)
15. GT.Kose, F.Korkusuz, A.Ozkul, S.Ber, H.Kenar, V.Hasirci, Tissue Engineering of Bone Using Collagen and PHBV Matrices, *Technology and Health care (Biomed 8 special issue)*, 10(3-4), 299-301, 2002 (**Extended abstract**).

#### **International Conferences and Abstracts (Last 5 years)**

1. D.Aksu, G.Meriç, B.Ç.Aksu, C.L.Altan, **G.Torun Kose**, Preparation of New Biocompatible Bone Cement by Using Dual Active Biofiller and Enhancement of Their Features for Bone Development, (**Oral Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
2. N.İ.Büyük, **G.Torun Kose**, Effects of Pore Sizes of 3D Printed Scaffolds on Bone Regeneration, (**Oral Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
3. Ö.Karabiyik Acar, G.Bozdağ, S.B.Kaptanoğlu, A.Tuncer, G.D.Nozhatzadeh, E.Hacıhasanoğlu, **G.Torun Köse**, E.Ayşan, Efficacy of the Decellularized Human Thyroid Tissues, (**Oral Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
4. G.D.Nozhatzadeh, Ö.Karabiyik Acar, L.E.Aydoğan, A.Tuncer, E.Hacıhasanoğlu, F.Şahin, **G.Torun Köse**, E.Ayşan, Calcium-Alginate Encapsulation For Transplantation of Parathyroid Cells: Serum, Plasma, And Blood Effect, (**Oral Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
5. K.Tüfekçi, N.İ.Büyük, A.Cumbul, E.Ayşan, **G.Torun Köse**, A novel method for providing scaffold: Decellularization of parathyroid capsule, (**Poster Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
6. S.B.Kaptanoğlu, Ö.Karabiyik Acar, A.A.Tuncer, G.Bozdağ, G.D.Nozhatzadeh, F.Şahin, **G.Torun Köse**, E.Ayşan, Effects of Electric Field on the Immunological Properties of Parathyroid Cells, (**Poster Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
7. A. A.Tuncer, Ö.Karabiyik Acar, G.Bozdağ, G. D.Nozhatzadeh, S. B.Kaptanoğlu, M.Keğin, F.Şahin, **G.Torun Köse**, M. E.Ayşan, Static Magnetic Field Effect on Macroencapsulated Parathyroid Cells and Lymphocyte Orientation, (**Poster Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
8. T.T.Gökçen, F.Kocabaş, O.C.Namlı, **G.Torun Köse**, Effects of Small Molecules on Cartilage Tissue Regeneration, (**Poster Presentation**), Biomed 2022, Ankara, Turkey, Nov 25-27, 2022
9. **G.Torun Kose**, Cartilage regeneration via small molecule induced rat bone marrow mesenchymal stem cells on natural biomaterials, (**Oral Presentation**), GRC 2022, İstanbul, Turkey, Sept 15-17, 2022
10. **G.Torun Kose**, Bone Tissue Engineering Application with the Vasculogenesis inducing Biphasic Scaffold, (**Oral Presentation**), 1st International Congress of South-East European Biologic & Regenerative Medicine (SEEBRA), Belgrade, Serbia, 10-11 Dec 2020

11. E.İ.Bektaş Taş, G.G.Peközer, N.Abay Akar, F.N.Kök, **G.Torun Köse**, Investigation of Small Molecule Induced Rat Bone Marrow Mesenchymal Stem Cells' Behavior on Natural Biomaterials, **(Oral Presentation)**, 11<sup>th</sup> World Biomaterials Congress (WBC2020 virtual) 11-15 Dec 2020
12. F. Cayir, P. Ercal, G. Gurel Pekozer, **G.Torun Kose**, Comparison of Stem Cells From Dental Tissues in Terms of Osteo-Odontogenic Potential and Their Usage in Bone Tissue Engineering, **(Oral Presentation)**, 28<sup>th</sup> Annual Meeting European Orthopaedic Research Society (EORS2020 virtual), 17-18 Sept 2020.
13. A.C.C.Koyuncu, A.H.Nayman, D.Telci, **G.Torun Kose**, Use of Tissue Transglutaminase-Transduced Mesenchymal Stem Cells in Cartilage Tissue Engineering, **(Oral Presentation)**, 24th International Biomedical Science and Technology Symposium-Biomed 2019, Çeşme, İzmir, TR, Oct 17-20, 2019
14. E.I.Bektaş, G.G.Pekozer, F.N.Kok, **G.Torun Kose**, A Tissue Engineering Approach with Natural Biomaterials, **(Oral Presentation)**, 24th International Biomedical Science and Technology Symposium-Biomed 2019, Çeşme, İzmir, TR, Oct 17-20, 2019
15. N.A.Akar, G.G.Pekozer, **G.Torun Kose**, Usage of Wet-Spun PLGA Scaffolds for Bone Regeneration, **(Oral Presentation)**, 24th International Biomedical Science and Technology Symposium-Biomed 2019, Çeşme, İzmir, TR, Oct 17-20, 2019
16. **G.Torun Kose**, Potential applications of stem cells in tissue engineering, **(Oral Presentation)**, GRC 2019, Sofia, Bulgaria, Sept 6-8, 2019
17. **G.Torun Kose**, Stem cell usage in tissue engineering, **(Oral Presentation)**, 3rd Stem Cell and Application Symposium (İÜKÖK- IUSCSC), Istanbul, Turkey, April 28-29, 2018
18. S.Erkal Ilhan, Ö.Kürkçüoğlu, T.Inan, ÖZ.Güner, B.Okutan, **G.Torun Kose**, A.Karabork, A.Okçu Heper, Ö.Gürses, FS.Güner, Preparation of Doxycycline Imprinted Contact Lenses and Determination of Their In Vivo and In Vitro Performance in Treatment of Corneal Neovascularization, **(Oral Presentation)**, 1st International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2018), Ankara, Turkey, April 26-27, 2018

### **Organized Conferences/Symposium**

1. 2. International Congress on Stem Cell and Cellular Therapies, **Member of the international organizing and scientific committee**, Antalya, Turkey, 15-18 Oct 2015
2. Biomed 2015, **Member of the international organizing and scientific committee**, Antalya, Turkey, 22-24 Oct 2015
3. Biomed 2013, **Member of the international organizing and scientific committee**, Kuşadası, Turkey, 12-15 November 2013
4. 1. Biomaterial and Tissue Engineering Workshop, **Member of the local organizing committee**, Ankara, Turkey, 26 June 2009

5. TUYOD 2. National Artificial Organs and Support System Kongress, **Member of the local organizing committee**, Antalya, Turkey, 23-26 April 2009
6. Gene Therapy Symposium, Current progress, What we have learned over the past 20 years?, **Member of the local organizing committee**, Istanbul, Turkey, 2-3 Nov 2007
7. ESBP, European Society of Biopolymer Symposium, **Member of the local organizing committee**, Kuşadası, İzmir, 2-4 Oct 2007
8. **Principle organizer**, Biyomed 2007, 13. Biyomedikal Bilim ve Teknoloji Sempozyumu, Istanbul, Turkey, 26-28 August 2007
9. TUYOD 1. National Artificial Organs and Support System Kongress, **Member of the local organizing committee**, Istanbul, Turkey, 2007
10. **Principle organizer**, Cell Culture Applications on Bone And Cartilage Tissue Engineering Summer Course and Workshop, Yeditepe University, Department of Genetics and Bioengineering, İstanbul, 12-16 June 2006
11. Biyoinformatik 2- Workshop, **Member of the local organizing committee**, Doğa Clup, Şile, İstanbul, 15-21 August 2004
12. Biomed 8, The Eighth International Symposium on Biomedical Science and Technology, Middle East Technical University, **Member of the local organizing committee**, Ankara, TURKEY, 2001
13. Biomed 2, The Second National Symposium on Biomedical Science and Technology, Middle East Technical University, **Member of the local organizing committee**, Ankara, TURKEY, 1995
14. NATO Advanced Study Institute on Molecular Aspects of Oxidative Drug Metabolizing Enzymes: Their Significance in Environmental Toxicology, Chemical Carcinogenesis and Health, **Member of the local organizing committee**, Kuşadası, Aydın, TURKEY, 1993

## Projects

1. K.Tüfekçi, G.Torun Köse (**Principle Investigator**), Development of Bilayer Tissue Scaffolds with 3D-Bioprinting for the Repair of Osteochondral Damages, Yeditepe University Project Grant HD-22014, 2022-2024, 28.052 Euro
2. N.İ.Büyük, G.Torun Köse (**Principle Investigator**), The use of chitosan nanoparticles loaded with osteogenic and angiogenic small molecules in bone regeneration, Yeditepe University Project Grant HD-23018, 2022-2024, 19.465 Euro
3. N.İ.Büyük, G.Torun Köse (**Principle Investigator**), Use of 3D Printed PLA Tissue Scaffolds with Different Pore Sizes in Bone Regeneration, Yeditepe University Project Grant HD-23019, 2022-2024, 19.118 Euro

4. A.Demirci, G.Torun Köse (**Principle Investigator**), Development of Surface Coating Strategies for Antimicrobial Titanium Implant Materials with Enhanced Osteogenic Activity, Yeditepe University Project Grant HD-23020, 2022-2024, 35.438 Euro
5. P.Siraneci, G.G.Peközer, G.T.Köse (**Advisor**), Tooth Germ-Derived Stem Cells in Bone Tissue Engineering: Analysis of Osteo-odontogenic Potential, Tübitak 3501, 117S460, 2017-2020, 95.900 Euro
6. F.N.Kök, E.İ.Bektaş, G.G.Peközer, G.T.Köse (**Researcher**), Cartilage regeneration via small molecule induced rat bone marrow mesenchymal stem cells on natural biomaterials, TÜBİTAK 1001, 117M287, 2017-2020, 94.600 Euro
7. **Researcher**, Cellular and Gene Therapy Research and Development Center of Excellence, TURKISH MINISTRY OF DEVELOPMENT, 2016-2021, 6.800.000 Euro
8. G.Torun Köse (**Principle Investigator**), G.Gürel, T.Beyzadeoğlu, Bone tissue engineering application with the vasculogenesis inducing biphasic scaffold, TÜBİTAK 1001, 114S556, 2014-2017, 117.000 Euro
9. E.Can, G.Cemali, G.Torun Köse (**Researcher**), Development of Vinyl Phosphonic Acid (VPA) and Vinyl Phosphonic Acid Di-ethyl Ester (VPES) Based Bone Tissue Engineering Materials TÜBİTAK 1001, 114M195, 2014-2017, 115.000 Euro
10. N.Hasırcı, G.Torun Köse (**Researcher**), T.Baran, E.Tönük, D.Yücel, T.Beyzadeoğlu, V.Hasırcı, Patient-Specific Orthopedic Implant Design and Production with Tissue Engineering Method, TÜBİTAK 1003, 213M708, 2014-2017, 212.700 Euro
11. D.Yücel, N.Hasırcı, G.Torun Köse (**Advisor**), V.Hasırcı, Effects of Topography of Polymeric Cell Carriers and Meningeal Cells on Mesenchymal Stem Cell Differentiation, TÜBİTAK 3501, 113S870, 2014-2016, 117.000 Euro
12. F.N.Kök, K.Kazmanlı, G.Torun Köse (**Researcher**), M.Ürgen, The Growth of Magnesium Substituted Hydroxyapatite on (Ti,Mg)N Thin Films and Investigation of their Potential as Hard Tissue Implant Material, TÜBİTAK 1001, 112M339, 2012-2014, 146.000 Euro
13. H.Çimenoğlu, M.Baydoğan, N.G.Karagüler, G.Torun Köse (**Advisor**), Formation of a Bioactive, Antibacterial and Microporous Oxide Layer on Titanium and Titanium Alloys for Biomedical Purposes, TÜBİTAK 1001, 111M517, 2012-2014, 146.000 Euro
14. T.Beyzadeoğlu, K.Yüksel, Ö.Karabıyık, F.Altıntaş, A.İvkoviç, C.H.Evans, R.M.Porter, G.Torun Köse (**Researcher**), Molecular investigation of the inhibition of bone formation after spongius allografting of the MSC isolated from bone and adipose tissues, TOTBİD (Association of Turkish Orthopedy and Traumatology ), 2011-2012, 5.000 Euro
15. M.Ramazanoğlu, K.A.Schlegel, G.Torun Köse (**Researcher**), The Effect of a Biodegradable Polyethylenglycol-Gel (MX10™) on the Delivery and Osteogenic Differentiation of Autologous Tooth Germ Derived Stem Cells (TGSCs) in a Porcine Model, German ITI (International Team for Implantology) Research Grant, 2011-2013, 100.000 Euro



16. G.Torun Köse (**Principle Investigator**), M.Ramazanoğlu, O. Karabıyık, A.C.Çalikoğlu, J.Svadohova, T. Sedlačık, V. Proks, H. Studenovska, Biodegradable polypeptide-based hydrogels for soft tissue regeneration, Tübitak Joint Research and Development Project, 111M031, 2011-2013, 19.000 Euro
17. G.Torun Köse (**Principle Investigator**), G.Gürel, Bone Tissue Formation from Dental Pulp Stem Cells on PBS Scaffolds, Feyzi Akkaya Scientific Scholarship Project, 2011-2012
18. G.Torun Köse (**Principle Investigator**), D.Yücel, Ö.Karabıyık, A.İ.Kanneci, V.Hasırcı, Nerve Regeneration on A System Consisting of PLGA tubes and Laminin-1-Collagen Nanofibers, L'Oréal Women Scientist of Turkey Scholarship Project, 2011-2012
19. G.Torun Köse (**Principle Investigator**), A.C.Çalikoğlu, Cartilage tissue engineering on PCL-PLLA scaffolds by using dental jerm stem cells, TÜBİTAK 1002, 110M404, 2011-2012, 12.500 Euro
20. V.Hasırcı, G.Torun Köse (**Researcher**), K.Ulubayram, K.Şerbetçi, H.Kenar, D.Yücel, N.Hasırcı, Center of Excellence for Biomaterials and Tissue Engineering, State Planning Institute Project (DPT), 2010-2013, 3.300.000 Euro
21. G.Torun Köse (**Principle Investigator**), S.Bucak, M.Değertekin, ALVIMEDICA, Drug Eluting Biodegradable Stent, State for Industry Project (SAN-TEZ), 00155.STZ.2007-2, 2007-2010, 500.000 Euro
22. M.Karahan, A.I.Doğan Ekici, Y.Ünlüerçi, G.Torun Köse (**Researcher**), Effect of ascorbic acid injection in articular knee with acute traumatic oteocondral defects, TÜBİTAK 1002, 108S135, 2008-2009, 15.000 Euro
23. V.Hasırcı, G.Torun Köse (**Researcher**), K.Ulubayram, K.Şerbetçi, H.Kenar, D.Yücel, N.Hasırcı, Investigation of pH and temperature sensitive smart nanobiomaterials in cartilage tissue engineering, State Planning Institute Project (DPT), 2006-İAP, 2005-2008, 360.000 Euro
24. V.Hasırcı, G.Torun Köse (**Researcher**), K.Ulubayram, K.Şerbetçi, N.Hasırcı, METUNANOBIOMAT- Development of Nanobiomaterials Research Unit in METU, TÜBİTAK- TBAG 105T508, 2005-2008, 272.000 Euro
25. **Researcher**, Marie-Curie RTN-FP6 BioPolySurf (Project Director J.Carlos Rodriguez-Cabello, Spain) "Engineering advanced polymeric surfaces for smart systems in biomedicine, biology, material science and nanotechnology: A cross-disciplinary approach of Biology, Chemistry, and Physics", 2004-2009, 7.300.000 Euro
26. **Researcher**, EXPERTISSUES- FP6 European Commission CORDIS Framework Programme Project involving 13 European countries and 20 groups (Project Director R.Reis, Portugal) "Novel Therapeutic Strategies for Tissue Engineering of Bone and Cartilage Using Second Generation Biomimetic Scaffolds", 2004-2010, 233.455 Euro
27. G.Torun Köse (**Principle Investigator**), H.Kenar, D.Yücel, V.Hasırcı, Study of the influence of micropatterned polymeric PHBV8-PLLA films on the growth and proliferation of neural tissues and molecular approaches in nerve tissue growth : In vitro neural tissue engineering, TÜBİTAK-SBAG-2723, 103S164, 2004-2006, 20.500 Euro

28. F.Korkusuz, G.Torun Köse (**Researcher**), A.Özkul, Y.Soydal, T. Özdemir, C.Yıldız, V.Hasırcı, Tissue engineered cartilage on collagen and PHBV matrices, TÜBİTAK-MİSAG-158, 2000-2002, 60.000 Euro
29. G.Torun Köse (**Researcher**), F.Korkusuz, V.Hasırcı, Bone tissue generation on biodegradable polymeric scaffolds, METU Graduate School of Natural and Applied Sciences Project (Project number: AFP-2000-07-02-00-07), 1998-2002

### M. Sc. Theses

1. Tansu Turan, G.Torun KÖSE (Advisor), Effects of Small Molecules on Cartilage Tissue Regeneration, 2019-2022
2. Delal Nozhatzadeh, G.Torun KÖSE (Advisor), Differentiation of thyroid cells to parathyroid cells in coculture environment, 2020-2022
3. Fatma Çayır, G.Torun KÖSE (Advisor), Tooth Germ-Derived Stem Cells in Bone Tissue Engineering: Analysis of Osteo-odontogenic Potential, 2017-2021
4. Kenda Sabouni, G.Torun KÖSE (Advisor), Sakip Önder (Co-Advisor), Determination of Osseointegration Properties of Magnesium Doped TiN Coatings In Vivo, 2017-2019
5. Begüm Okutan, G.Torun KÖSE (Advisor), E.Can (Co-Advisor), Role of PPF based scaffolds in bone regeneration, 2016-2018
6. Ezgi İrem Bektaş, G.Torun KÖSE (Advisor), F.N.Kök (Co-Advisor), Osteogenic differentiation of mesenchymal stem cells on double layer electrospun scaffolds, 2012-2014
7. Seçil Demir, G.Torun KÖSE (Advisor), F.Şahin (Co-Advisor), Usage of bacterial cellulose-collagen scaffolds incorporating IGF-I and TGFB-1 genes for cartilage regeneration, 2011-2014
8. Nergis Abay, G.Torun KÖSE (Advisor), Bone tissue formation on modified polybutylene succinate scaffolds with porcine dental germ stem cells, 2011-2013
9. Vildan Betül Yenigün, G.Torun KÖSE (Advisor), B.Özpolat (Co-Advisor), Tamoxifen effect on isolated breast cancer stem cells and MCF-7 breast cancer cells in the aspect of autophagy and apoptosis, 2009-2011
10. Berke Bilgenur Kandemir, G.Torun KÖSE (Co-Advisor), Polyethylenimine-starch nanoparticles for cancer gene therapy, 2011-2013
11. Ayşe Ceren Çalikoğlu, G.Torun KÖSE (Advisor), Cartilage tissue engineering on three dimensional scaffolds using human tooth germ stem cell, 2008-2011
12. Görke Gürel, G.Torun KÖSE (Advisor), Engineering a vascularised bone tissue on electrospun biocomposite scaffolds, 2008-2011

13. Özge Karadaş, V.Hasırcı (Advisor), G.Torun KÖSE (Co-Advisor), Collagen caffolds with in situ grown calcium phosphate for osteogenic differentiation of Wharton's jelly and menstrual blood stem cells, 2008-2011
14. İ.Ayşe Kanneçi, G.Torun KÖSE (Advisor), In vitro studies of drug eluting biodegradable polymeric stent, 2008-2010
15. Esra Aydemir, G.Torun KÖSE (Advisor), Characterization of cancer stem cells in chordoma, 2007-2010
16. Ayşe Burcu ERTAN, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), Use of pH and temperature sensitive nanospheres in cartilage tissue engineering, 2006-2009
17. M.Emir Yalvaç, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), Pluripotent stem cells in human dental follicle, 2006-2008
18. Nihan Öztürk, V.Hasırcı (Advisor), G.Torun KÖSE (Co-Advisor), Thermoresponsive polymeric cell carriers of pNIPAM and ELP for bone tissue engineering, 2005-2008
19. Fitnat Buket Başmanav, V.Hasırcı (Advisor), G.Torun KÖSE (Co-Advisor), Sequential growth factor delivery from complexed microspheres for bone tissue engineering, 2005-2007

#### **Ph.D. Theses Involved**

1. Gülnihal Bozdağ, G.Torun KÖSE (Advisor), Differentiation of Parathyroid-Derived Stromal Stem Cells to Parathyroid Organoids, 2020+
2. Didem Aksu, G.Torun KÖSE (Advisor), Preparation of New Biocompatible Bone Cement By Using Dual Active Biofiller and Enhancement of Their Features For Bone Development, 2019+
3. Emine Afra Demirci, G.Torun KÖSE (Advisor), Surface modification strategies for antimicrobial titanium implant materials with enhanced osteogenic activity 2019+
4. Kardelen Tüfekçi, G.Torun KÖSE (Advisor), Preparation of LBG-XG/PCL-PBSu Scaffolds by Using 3D Bioprinter For Cartilage Development, 2018+ Integrated PhD
5. Nisa İrem Büyük, G.Torun KÖSE (Advisor), Usage of 3D printed PLLA-PBSU scaffolds for small molecule induced bone regeneration, 2018+
6. Ezgi İrem Bektaş Taş, G.Torun KÖSE (Advisor), Cartilage regeneration via small molecule induced rat bone marrow mesenchymal stem cells on natural biomaterials, 2014-2021
7. Merve Karakaş, G.Torun KÖSE (Advisor), Investigating the effects of lenti virus mediated GDNF expression on functional recovery, brain plasticity and neurogenesis after transient focal cerebral ischemia in mice, 2015-2019

8. Görkem Cemali, G.Torun KÖSE (Advisor), E.Can (Co-Advisor), Development of Poly(proylene fumarate) (PPF), Vinyl Phosphonic Acid (VPA) and Vinyl Posphonic Acid Di-Ethyl Ester (VPES) Based Scaffolds for Bone Tissue Engineering, 2011-2019
9. Nergis Abay, G.Torun KÖSE (Advisor), Bone Tissue Engineering Application with the Vasculogenesis Inducing Biphasic Scaffolds, 2013-2018
10. Ayşe Ceren Çalıköğlü, G.Torun KÖSE (Advisor), Use of Tissue Transglutaminase (Variet 2)-Transduced Mesenchymal Stem Cells in Cartilage Tissue Engineering, 2011-2018
11. Ayşegül Atasoy, G.Torun KÖSE (Advisor), Effect of human cancellous bone graft soluble molecules onto differentiated human adipose derived mesenchymal stem cells towards osteogenic lineages, 2012-2017
12. Özge Karabıyık, G.Torun KÖSE (Advisor), B.Kayıtmazer (Co-Advisor), Usage of hyaluronic acid - chitosan coacervates for cartilage tissue engineering, 2012-2017
13. Görke Gürel, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), Dental stem cell mediated bone tissue engineering using porcine model, 2011-2017
14. Ayşe İrem Kanneçi, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), Functionalized nanofiber based scaffold in nerve tissue engineering, 2011-2017
15. Ayşe Burcu Ertan, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), In vitro skeletal muscle model development through co-culture of cells, 2009-2017
16. Perihan Selcan Güngör, F.N.Kök (Advisor), G.Torun KÖSE (Co-Advisor), Design of a bioactive scaffold system for hard tissue engineering, 2010-2014
17. Halime Kenar, V.Hasırcı (Advisor), G.Torun KÖSE (Co-Advisor), 3D patterned cardiac tissue construct formation using biodegradable materials, 2003-2008
18. Deniz Yücel, V.Hasırcı (Advisor), G.Torun KÖSE (Co-Advisor), Stem cell based nerve tissue engineering on guided constructs, 2003-2009

### **Memberships**

1. Biomaterial and Tissue Engineering Association, 2008+
2. Society of Stem Cell and Cellular Therapies, 2013+
3. Biomaterials and Tissue Engineering Society, 2008+
4. Turkish Artificial Organs Society (TUYOD), 2007+
5. Tissue Engineering and Regenerative Medicine International Society (TERMIS), 2005+
6. Tissue Engineering Society (TESI), 2005
7. European Tissue Engineering Society (ETES), 2005

8. Biomaterials Network (Biomat.net), 2005+

**Teaching Experience**

BIO 111 Medical and General Biology, Faculty of Pharmacy

TDH 140 Medical Biology and Genetics, Faculty of Dentistry

TDH 231 Biochemistry, Faculty of Dentistry

BIO 122 Introduction to Genetics, Faculty of Pharmacy

BIO 130 Fundamentals of General Biology, Faculty of Medicine

PHAR 103 Medical and Molecular Biology, Faculty of Pharmacy

GBE 101 Biology I, Faculty of Engineering, Department of Genetics and Bioengineering

GBE 104 Biology Laboratory, Faculty of Engineering, Department of Genetics and Bioengineering

GBE 102 Biology II, Faculty of Engineering, Department of Genetics and Bioengineering

GBE 212 Classical and Molecular Genetics, Faculty of Engineering, Dept.of Genetics and Bioeng.

GBE 216 Classical and Molecular Genetics Laboratory, Faculty of Eng., Dept.of Genetics and Bioeng

GBE 432 Cell and Tissue Culture, Faculty of Engineering, Dept.of Genetics and Bioeng.

GBE 433 Biomaterials, Faculty of Engineering, Department of Genetics and Bioengineering

BME321 Biomaterials, Faculty of Engineering, Department of Biomedical Engineering

GBE 492 Engineering Project, Faculty of Engineering, Department of Genetics and Bioengineering

BTEC 533 Advanced Biomaterials, Institute of Science

BTEC 535 Mammalian Tissue Engineering, Institute of Science