

Gizem CALIBASI-KOCAL, M.Sc., Ph.D., Ph.D.

Associate Professor

Dokuz Eylul University, Institute of Oncology, Department of Translational Oncology, Izmir-Turkey.

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EDUCATION

Ph.D. in Biochemistry

Sep 2015- Agu 2019

İstanbul Medipol University, Institute of Health Sciences, Istanbul- Turkey, cGPA: 4.00/4.00

Focus: Cancer Biochemistry

Thesis: "The role of lactate dehydrogenase related modification of tumor metabolism on chemotherapy efficacy in colorectal cancer"

Ph.D. in Basic Oncology

Sep 2011- June 2016

Dokuz Eylul University-Institute of Health Sciences, Izmir- Turkey, cGPA: 4.00/4.00

Focus: Cancer biology & Molecular oncology

Thesis: "The effect of micro-environment on the EMT processes in colorectal cancer"

*Graduated with first HONOUR in the Institute of Health Sciences

M.Sc. in Basic Oncology

Sep 2008- Aug 2011

Dokuz Eylul University-Institute of Health Sciences, Izmir- Turkey, cGPA: 3.40/4.00

Focus: Cancer biology, Molecular oncology and Personalized therapy

Thesis: "Clinical Importance of c-kit Mutations in Gastrointestinal Stromal Tumors"

*Graduated with second honour in the Institute of Health Sciences

B.Sc. in Biochemistry

Sep 2004-Jun 2008

Ege University, Izmir, Turkey, cGPA: 3.20/4.00

PROFESSIONAL EXPERIENCES

Dokuz Eylul University-Institute of Oncology,

Department of Translational Oncology, Izmir, Turkey

Associate Professor

Nov 2020- Current

Assistant Professor

Feb 2020- Nov 2020

Research and Teaching Assistant

May 2019- Feb 2020

Koch Institute for Integrative Cancer Research,

Massachusetts Institute of Technology

Visiting Scientist

Nov 2020- Current

Post-doctoral Research Fellow

Nov 2018- Nov 2020

Dokuz Eylul University-Institute of Oncology,
Department of Basic Oncology, Izmir, Turkey
Research and Teaching Assistant

Aug 2012- May 2019

Stanford University,
Canary Center for Early Cancer Detection, CA, USA
Visiting Researcher

May 2014- Feb 2015

Harvard Medical School, Brigham and Women's Hospital, MA, USA
Harvard-MIT Health Sciences and Technology, MA, USA
Pre-doctoral Research Fellow

Sep 2013- May 2014

ADMINISTRATIVE ASSIGNMENTS

Personalized Medicine and Pharmacogenomics/Genomics Center
Dokuz Eylul University, Izmir, Turkey
Member of Advisory Board

June 2015- June 2018

PUBLICATIONS

Papers in International Journal

1. Kurter H, Mert-Ozupek N, Ellidokuz H, Calibasi-Kocal G. In-silico drug-likeness analysis, ADME properties, and molecular docking studies of cyanidin-3-arabinoside, pelargonidin-3-glucoside, and peonidin-3-arabinoside as natural anticancer compounds against acting receptor-like kinase 5 receptor. *Anticancer Drugs*. 2022 Mar 23.
2. Karaca C, Tokatli A, Tokatli A, Karadag A, Calibasi-Kocal G. Warburg and pasteur phenotypes modulate cancer behavior and therapy. *Anticancer Drugs*. 2022 Jan 1;33(1):e69-e75.
3. Calibasi-Kocal G, Mashinchian O, Basbınar Y, Ellidokuz E, Cheng CW, Yilmaz ÖH. Nutritional Control of Intestinal Stem Cells in Homeostasis and Tumorigenesis. *Trends Endocrinol Metab*. 2021 Jan;32(1):20-35.
4. Eskiizmir G, Çalıbaşı Koçal G, Uysal T, Ellidokuz H, Başpınar Y. Serum hypoxia-inducible factor-2: A candidate prognostic biomarker for laryngeal cancer. *Clin Otolaryngol*. 2021 Nov;46(6):1172-1183.
5. Sürer Şİ, Elçitepe TB, Akçay D, Daşkın E, Çalıbaşı Kocal G, Arıcan Alıcıkuş Z, Eskiizmir G, Yapıcı K, Başbınar Y. A Promising, Novel Radiosensitizer Nanodrug Complex for Oral Cavity Cancer: Cetuximab and Cisplatin-Conjugated Gold Nanoparticles. *Balkan Med J*. 2021 Sep;38(5):278-286
6. Calibasi-Kocal G, Amirfallah A, Sever T, Umit Unal O, Gurel D, Oztop I, Ellidokuz H, Basbınar Y. *EGFR* mutation status in a series of Turkish non-small cell lung cancer patients. *Biomed Rep*. 2020 Aug;13(2):2.
7. Calibasi-Kocal G, Pakdemirli A. Antiproliferative effects of carvacrol on neuroblastoma cells. *İzmir Dr. Behçet Uz Çocuk Hast. Dergisi* 2020;10(1):61-64.

8. Pakdemirli A, Calibasi Kocal, Kilinc G, Daskin E, Kemaloğlu H, Basbinar Y, Ellidokuz H. Salivary Pro-Inflammatory Cytokines and Salivary Bacterial Challenge Effect on Dental Caries: A Clinico-Molecular Cross-Sectional Study. *J Basic Clin Health Sci* 2020; 1:77-81.
9. Calibasi-Kocal G, Pakdemirli A, Bayrak S, Ozupek NM, Sever T, Basbinar Y, Ellidokuz H, Yigitbasi T. Curcumin effects on cell proliferation, angiogenesis and metastasis in colorectal cancer. *J BUON*. 2019 Jul-Aug;24(4):1482-1487.
10. Meco HE, Karadag A, Omeroglu S, Aydemir G, Calibasi-Kocal G, Oruc ME, Uvet H, Basbinar Y. Optimization of Different Surface Modifications for Binding of Tumor Cells in a Microfluidic Systems. *J Basic Clin Health Sci* 2019; 3:73-77.
11. Cheng CW, Biton M, Haber AL, Gunduz N, Eng G, Gaynor LT, Tripathi S, Calibasi-Kocal G, Rickelt S, Butty VL, Moreno M, Iqbal AM, Bauer-Rowe1 KE, Mylonas C, Whary MT, Levine SS, Hynes RO, Mino-Kenudson M, Deshpande V, Boyer LA, Fox JG, Mihaylova MM, Regev A, Yilmaz ÖH. Endogenous ketones instruct intestinal stem cell fate through Notch signaling. *Cell* (Accepted on June, 2019)
12. Calibasi-Kocal G. Anticancer Efficiency of Curcumin on Ovarian Cancer. *J Basic Clin Health Sci* 2019; 3:78-82.
13. Koc A, Goksel T, Pelit L, Korba K, Dizdas TN, Baysal E, Uzun UC, Kaya OO, Ozyilmaz B, Kutbay YB, Ozdemir TR, Kirbiyik O, Erdogan KM, Guvenc MS, Kocal GC, Basbinar Y. cfDNA in exhaled breath condensate (EBC) and contamination by ambient air: toward volatile biopsies. *J Breath Res*. 2019 May 1;13(3):036006.
14. Amirfallah A, Kocal GC, Unal OU, Ellidokuz H, Oztop I, Basbinar Y. DPYD, TYMS and MTHFR Genes Polymorphism Frequencies in a Series of Turkish Colorectal Cancer Patients. *J Personalized Med*. 2018 Dec 13;8(4). pii: E45.
15. Yildirim N, Calibasi-Kocal G, Isik Z, Saatli B, Saygili U, Uysal T, Ulukus C, Koyuncuoglu M, Ellidokuz H, Basbinar Y. Ubiquitin-Proteasome Axis, Especially Ubiquitin-Specific Protease-17 (USP17) Gene Family, is a Potential Target for Epithelial-Mesenchymal Transition in High-Grade Serous Ovarian Cancer. *Reprod Sci*. 2018 Sep 9:1933719118799189.
16. Yigitbasi T, Calibasi-Kocal G, Buyukuslu N, Atahan MK, Kupeli H, Yigit S, Tarcan E, Baskin Y. SELDI-TOF-MS Profiling of Metastatic Phenotype in Histopathological Subtypes of Breast Cancer. *Current Proteomics*. 2018.
17. Yigitbasi T, Calibasi-Kocal G, Buyukuslu N, Atahan MK, Kupeli H, Yigit S, Tarcan E, Baskin Y. An efficient biomarker panel for diagnosis of breast cancer using surface enhanced laser desorption ionization time of flight mass spectrometry. *Biomedical Reports*. 2018; 8(3): 269-274.
18. Baskin Y, Yigitbasi T, Buyukuslu N, Calibasi-Kocal G, Ustuner F, Arslan B, Ellidokuz H. Serum amylase activity can predict the hospitalization and operation rates. *Clinical and Experimental Health Sciences*. 2018; 8: 44-49.
19. Yigitbasi T, Baskin Y, Akgol E, Calibasi-Kocal G, Ellidokuz H. Association of ischemia-modified albumin with oxidative stress status and insulin resistance in obese patients. *Romanian Journal of Laboratory Medicine*. 2017; 25(3), 255-263.

20. Calibasi Kocal G, Guven S, Foygel K, Goldman A, Chen P, Sengupta S, Paulmurugan R, Baskin Y, Demirci U. Dynamic microenvironment modulates phenotypic plasticity of esophageal cancer cells under flow. *Scientific Reports*. 2016; 6: 38221.
21. Baskin Y, Calibasi Kocal G, Kucukzeybek BB, Akbarpour M, Kayacik N, Sagol O, Ellidokuz H, Oztop I. PDGFRA and KIT Mutation Status and Its Association With Clinicopathological Properties, Including DOG1. *Oncology Research*. 2016; 24(1): 41-53.
22. Eskiizmir G, Calibasi G, Uysal T, Ellidokuz H, Baskin Y. Cetuximab alone has a dose-dependent antitumor effect in oral cavity cancer cells: an in vitro study. *ENT Updates*. 2016;6(3):105-109.
23. Tekin CH, Durmus NG, Guven S, Sridhar K, Yildiz AA, Calibasi G, Ghiran I, Davis RW, Steinmetz LM, Demirci U. Magnetic levitation of single cells. *PNAS*. 2015, 112(28), E3661-8.
24. Diniz G, Baskin Y, Calibasi G, Aktas S. Relationship of c-Kit Gene and Microsatellit Instability in the Pathogenesis of Wilms Tumors. *Turkish Journal of Pathology*. 2016;32(2):139-40.
25. Baskin Y, Amirfallah A, Unal OU, Calibasi G, Oztop I. Dihydropyrimidine Dehydrogenase 85T>C Mutation Is Associated With Ocular Toxicity of 5-Fluorouracil: A Case Report. *American Journal of Therapeutics*. 2015 Mar-Apr;22(2):e36-9.
26. Baskin Y, Calibasi G, Amirfallah A, Dagdeviren YK, Canda AE, Sarioglu S, Sagol O, Ellidokuz H, Oztop I, Yilmaz U. KRAS and BRAF mutation frequencies in a series of Turkish colorectal cancer patients. *Translational Cancer Research*. 2014, 3(2), 160-166.
27. Cehreli C, Alacacioglu I, Piskin O, Ates H, Cehreli R, Calibasi G, Yuksel E, Ozkal S, Ozsan GH. Mast cell leukemia associated with undefined morphology and chronic basophilic leukemia. *BMC Hematology*. 2014 Sep 13;14(1):17.
28. Baskin Y, Dagdeviren YK, Calibasi G, Canda AE, Sarioglu S, Ellidokuz H, Oztop I. KRAS mutation profile differences between rectosigmoid localized adenocarcinomas and colon adenocarcinomas. *Journal of Gastrointestinal Oncology*. 2014 Aug;5(4):265-9.
29. Baskin Y, Amirfallah A, Calibasi G, Olgun N. Hepatopathy-Thrombocytopenia Syndrome During Actinomycin D Treatment May Be Related to MDR1 (ABCB1) Gene Polymorphisms. *American Journal Therapeutics*. 2014; 23(2):e594-6. doi: 10.1097/MJT.0000000000000020.
30. Calibasi G, Baskin Y, Alyuruk H, Cavas L, Oztop I, Sagol O, Atila K, Ellidokuz H, Yilmaz U. Molecular analysis of the KIT gene in gastrointestinal stromal tumors with novel mutations. *Applied Immunohistochemical Molecular Morphology*. 2014;22(1):37-45.
31. Unal OU, Oztop I, Calibasi G, Baskin Y, Koca D, Demir N, Akman T, Ellidokuz H, Yilmaz AU. Relationship between epidermal growth factor receptor gene mutations and clinicopathological features in patients with non-small cell lung cancer in western Turkey. *Asian Pacific Journal of Cancer Prevention*. 2013;14(6):3705-9.
32. Alyuruk H, Calibasi G, Cavas L, Baskin Y, Oztop I, Ellidokuz H, Yilmaz U. Protein modelling of a novel KIT mutation (N567Y) in the gastrointestinal stromal tumour. *European Journal of Cancer*. 2013;49(10):2449-52.
33. Calibasi G, Baskin Y, Oztop I, Sagol O, Atila K, Ellidokuz H, Yilmaz AU. The frequencies of c-kit proto-oncogene (KIT) mutations in gastrointestinal stromal tumours: A population based study from Aegean Region of Turkey. *Turkish Journal of Biochemistry*. 2013; 38(1): 5-12.

34. Calibasi G, Baskin Y. DNA sequencing Technologies used in medical field [Review]. *International Journal of Chemical Science and Technology*. 2013; 3(3): 270- 278.
35. Baskin Y, Calibasi G. Pharmacogenetic applications and in pharmacoeconomics in cancer patients [Review]. *Turkish Bulletin of Hygiene And Experimental Biology*. 2011; 68 (3): 152-64.

Book Chapter and Book

1. Hizel C, Tuzmen S, Arsalan Amirfallah A, Calibasi-Kocal G, Abbasoglu D, Haluk Onat H, Yildirim Y, Baskin Y. Precision Medicine for Colorectal Cancer (Chapter 5). In: Precision Medicine in Cancers and Non-Communicable Diseases. Editor: Debmalya Barh. 2019, p. 49-119, CRC Press (Taylor & Francis Group), Florida-USA. ISBN 9781498775601.
2. Baran B, Mert-Ozupek N, Calibasi-Kocal G, Baskin Y. microRNAs (miRNAs) in Colorectal Cancer: Diagnosis, Prognosis and Treatment. In: Oncogene, Editor: Pinar Erkekli. 2019. Intech Open Press, Croatia. ISBN 978-953-51-6751-8.
3. Ermis M, Calamak S, Calibasi-Kocal G, Guven S, Durmus G, Rizvi I, Hasan T, Hasirci N, Hasirci V, Demirci U. Hydrogels as a New Platform to Recapitulate the Tumor Microenvironment (Chapter 15). In: Handbook of Nanomaterials in Cancer Theranostics, Editor: João Conde. 2018, Elsevier Academic Press. eBook ISBN: 9780128133408, Paperback ISBN: 9780128133392.
4. Calibasi-Kocal G, Baskin Y. Immunopharmacogenetics in cancer management (Chapter 8). In: Genetic Diversity and Disease Susceptibility, Editor: Yamin Liu. 2018, p.143-154. Intech Open Press, Croatia. ISBN 978-953-51-6201-8.
5. Calibasi-Kocal G, Basbınar Y. Introductory Chapter: Cancer Metastasis (Chapter 1). In: Cancer Metastasis, Editor: Calibasi-Kocal G, Basbınar Y. 2018, p.1-5. Intech Open Press, Croatia. ISBN 978-1-78984-633-1.
6. Tuzmen S, Aydin Son Y, Baskin Y, Esemeyn Y, Eraslan S, Nursal AF, Calibasi-Kocal G, Ayse Demir B, Abbasoglu D, Hizel C. Techniques of nucleic acid engineering (Chapter 12). In: Omics Technologies and Bio-Engineering, Editors: Debmalya Barh and Vasco Azevedo. 2017, p. 247-316. Elsevier Academic Press, London-United Kingdom. ISBN: 978-0-12-804659-3.
7. Calibasi-Kocal G, Baskin Y. Polymorphisms in pharmacogenetics of personalized cancer therapy (Chapter 1). In: Genetic Polymorphisms, Editor: Narasimha Reddy Parine. 2017, p. 3-26. Intech Open Press, Croatia. ISBN 978-953-51-3516-6, Print ISBN 978-953-51-3515-9.
8. Baskin Y, Calibasi G. Cancer Biomarkers (Chapter 34). In: Clinical Biochemistry, Editors: Nesrin Emekli and Turkan Yigitbasi. 2015, Nobel Tıp Press, Istanbul-Turkey. ISBN: 9786058452107.
9. Baskin Y, Calibasi G. Methods associated with pharmacogenomics. In: The research methods used in oncology, Editors: Yasemin Baskin and Gizem Calibasi. 2011, p. 36-44. Dokuz Eylul University Press, Izmir- Turkey. ISBN: 978-975-441-330-4.
10. Baskin AH, Cavdar Z, Yuksel Egrilmez M, Gumus H, Bayrakal V, Cakmak E, Calibasi G, Cavusoglu B, Turhan Damar H, Yardımcı T. Dokuz Eylul University- Institute of Health Sciences, Guideline for Post-graduate Education. 2013. Dokuz Eylul University Press, Izmir-Turkey. ISBN: 978-975-441-408-0.
11. Baskin Y, Calibasi G, *Editors*. The research methods used in oncology. 2011. Dokuz Eylul

SCHOLARSHIP

- 2018- The Scientific and Technological Research Council of Turkey (TUBITAK)
International post-doctoral research fellowship programme
Duration: 12 months
- 2017- EFLM- European Federation of Clinical Chemistry and Laboratory Medicine
(Bursary for EUROMEDLAB-2017 in Athens-Greece; includes registration, travel and accommodation)
- 2015- The Scientific and Technological Research Council of Turkey (TUBITAK)
ARDEB 1001 Project Scholarship for Ph.D. Student (Project no: 214S334)
Duration 12 months
- 2014- The Scientific and Technological Research Council of Turkey (TUBITAK)
International research fellowship programme for PhD. Students
Duration: 12 months
- 2013- EFLM- European Federation of Clinical Chemistry and Laboratory Medicine
(Bursary for EUROMEDLAB-2013 in Milano-Italy; includes registration, accommodation,travel)
- 2012- Turkish Biochemistry Society-
24th National Biochemistry Congress, October 2012 -Scholarship for accommodation

AWARDS & HONOUR

- 2017- Turkey Foundation for Fighting Cancer- Prof.Dr.Bedii Gorbon Award.
(Project title: 'Radiotherapy-resistant oral cavity is the effect of drug carrier gold nanoparticles on the cancer cell line'. 22nd National Cancer Congress, 19-23 April 2017 in Antalya-Turkey)
- 2017- Turkey Foundation for Fighting Cancer- Prof.Dr.Ali Haydar Taspinar Award
(Project title: 'Examination of the chemophotothermal effect of the active targeted grafic oxide-setuximab nano-drug complex induced by pulsed laser in oral cavity cancer'. 22nd National Cancer Congress, 19-23 April 2017 in Antalya-Turkey)
- 2017- Selected abstract/Best project Award
(Project title: 'Investigation of the relationship of BRAF inhibitor resistance to HIF-1 regulation in malignant melanoma cell lines'. 22nd National Cancer Congress, 19-23 April 2017, Antalya-Turkey)
- 2017- Best oral presentation award
(Oral presentation title: presentation of 'Investigation of chemo-phototherapeutic activity of laser-induced carbon nanotube cisplatin nano-medicine in oral cavity cancer'. 39th Turkish National Otorhinolaryngology and Head & Neck Surgeon Congress, 8-12 November 2017, Antalya-Turkey)
- 2017- Organization of European Cancer Institutes (OECI) Meeting Bursary Award
(7th EACR-OECI Joint Training Course: Molecular Pathology Approach to Cancer, 8-10 May 2017 in Amsterdam- Netherlands; includes registration, travel and accommodation)
- 2016- Best presentation award

(Presentation title: Intracellular crosstalk in 3D co-culture model. 3rd International Medical Congress, November 1-2, 2016 in Baku- Azerbaijan.)

2011- Turkish Association for Cancer Research and Control

Oncology Research Awards, Second prize for best oncology research

(Project name: Clinical importance KIT gene mutations in gastrointestinal stromal tumours – M.Sc thesis project.)

2011- Best poster award.

(Poster name: Effect of KRAS mutations in colorectal cancer treatment, 3rd Annual Science Fair of Dokuz Eylul University- Current Approaches in Oncology, Izmir- Turkey.)

EDITORSHIP

1. Journal of Basic and Clinical Health Sciences, Associate Editor: Calibasi-Kocal G. (2019- Present)
2. Cancer Metastasis. Editors: Basbinar Y, Calibasi-Kocal G. IntechOpen Publishing, Croatia, ISBN 978-1-78984-632-4.
3. Research Methods Used in Basic Oncology. Editors: Basbinar Y, Calibasi-Kocal G. Dokuz Eylul University Press, Izmir- Turkey, ISBN: 978-975-441-330-4, 2011.

PEER REVIEWER

- Gulhane Medical Journal (2020- Present)
- Journal of Basic and Clinical Health Sciences (2019- Present)
- Journal of OncoTargets and Therapy (2016- Present)
- American Journal of Laboratory Medicine (2016- Present)
- Pathology and Laboratory Medicine (2016- Present)

MEMBERSHIPS

- Turkish Biochemical Society (TBS) (2010- Present)
- Federation of European Biochemical Societies (FEBS) (2010- Present)
- Turkish Molecular Cancer Research Association, MOKAD (2010- Present)
- European Association for Cancer Research (EACR) (2010- Present)
- Basic Oncology Society (2017- Present)