

İmge Kunter



Eastern Mediterranean University
Faculty of Pharmacy
Famagusta/ TRNC
Mobile TRNC. 05338618699
email: imgekunter@gmail.com
imge.kunter@emu.edu.tr

EDUCATION

BSc: Ege University, Faculty of Science, Department of Biochemistry, Izmir, Turkey
“Second Highest Honor”

***Thesis: “Assisted Reproductive Technologies”*

MSc: Dokuz Eylül University, Faculty of Medicine, Department of Medical Biology and Genetics, Izmir, Turkey

***Thesis “IP3 Kinase Signaling Pathway In Hepatocellular Carcinoma*

PhD: Dokuz Eylül University, Faculty of Medicine, Department of Medical Biology and Genetics, Izmir, Turkey

***Thesis: “Genome Wide Effects of Lithium in Hepatocellular Carcinoma Cells”*

WORK EXPERIENCE

2003 Observer/Researcher: Istanbul University, Faculty of Medicine, Institute of Experimental Medical Research, Istanbul

2004 Observer/Researcher: Metropolitan Florence Nightingale Hospital, IVF Center, Istanbul

2005-2008 Biologist Responsible for Chromosome Analysis: Dokuz Eylül University, Faculty of Medicine, Department of Medical Biology and Genetics Cytogenetic Laboratory, Izmir

2005-2013 Research Assistant: Dokuz Eylül University, Faculty of Medicine, Department of Medical Biology and Genetics, Izmir

2013-2014 Senior instructor: Eastern Mediterranean University, Faculty of Art and Science, Department of Biological Science

2014-now Senior instructor: Eastern Mediterranean University, Faculty of Pharmacy

PUBLICATIONS

- Erdal E., Erdal C., Bulut G., **Kunter I.**, Kir M., Atabey N., Acikel U. "Mutation analysis of the Vangl2 coding region revealed no common cause for Tetralogy of Follot", *The Journal of International Medical Research*, 2007, 35:867-872
- Erdal C., Karakülah G., Fermancı E., **Kunter İ.**, Silistreli E., Canda T., Erdal E., Hepağuşlar H. "Early Biventricular Molecular Responses to an Acute Myocardial Infarction" *Int. J. Med. Science* 2012 9(1)74-82
- İsmet Durak, Özlem Barut Selver, Esra Erdal, **İmge Kunter**, Zeynep Özbek Söylemezoğlu, Jose Mario Wolosin, " Ocular surface reconstruction with cultured limbal epithelial cells in limbal stem cell deficiency: first year results " *TJO*. 2012;42(3)
- **Kunter I.** , Atabey N., Nart D., Yılmaz F., Karademir S., Sagol O., Erdal E. "PI3K/Akt signaling controls proliferation without affecting apoptosis in Hepatocellular Carcinoma" *Oncol Rep*. 2014 Feb;31(2):573-80.
- **Kunter İ.** Hürer N, Gülcan HO, Öztürk B, Doğan İ, Şahin G. Assessment of Aflatoxin M1 and Heavy Metal Levels in Mothers Breast Milk in Famagusta, Cyprus. *Biol Trace Elem Res*. 2017 Jan;175(1):42-49.
- **Kunter I.**, Kandemiş, E., Alotaibi H. Canda T., Erdal B. E. Alteration in the subcellular location of the inhibitor of growth proteinp33(ING1b) in estrogen receptor alpha positive breast carcinoma cells *Turk J Biol* 2017; 41: 105-112
- Fallah A., Gülcan H. O., Gülcan C., Erçetin T., Kabaran S., **Kunter I**, Gazi M., Şahin G. , Şahin F.M Traditional techniques applied in olive oil production results in lower quality products in Northern Cyprus, *Turkish Journal of Pharmaceutical Sciences* accepted with TJPS-79188 no

Pending Publication and/or Manuscript in Preperation

- **Kunter I.**, Karakulah G., Atabey N., Erdal E. "Microarray profiling of lithium-modulated gene expression in hepatocellular carcinoma cell line, Huh-7" Manuscript in preparation
- **Kunter I.** , Akbari S, Atabey N., Erdal E. "LGR5 expression induced by Wnt/b-catenin pathway during hepatocarcinogenesis " Manuscript in preparation
- **Kunter I.**, Olusola B. H., Şahin G. The role of the pharmacist from biosimilars development to pharmacovigilance

ABSTRACTS

Abstracts From International or International Participation Meetings

- **Kunter I.**, Ozdag H., İlk G., Yılmaz S., İlk O., Atabey N., Ozturk M., Erdal E. "Molecular Dynamics of the Lithium-mediated Growth Inhibition in Hepatocellular Carcinoma Cells", Workshop on Emerging Topics in Human Functional Genomics And Proteomics, Abstract Book, May 2006, **Antalya, Turkey**
- Fermancı E. Erdal E., Bulut G., **Kunter I.**, Canda T., Yılmaz O., Atabey N., Unalacikel E., Erdal C. "Molecular characterization of Wnt/b-catenin signalling pathway after myocardial infarction", 55th Annual Meeting of the European

Society for Cardiovascular Surgery, Abstract Book, pp 172., 2006, **St Petersburg, Russia**

- **Kunter I.**, Atabey N., Erdal E. "Inhibition of the PI3K/Akt signalling caused G0/G1 arrest through the mechanism of Rb/E2F1 on the HCC cell lines" III. International Congress of Molecular Medicine, *IUBMB Life Vol:61 Issue:3 supplement*, May 2009, **İstanbul, Turkey**
- **Kunter I.**, Gozukizil A., Çokaklı M., Atabey N, Öztürk M., Erdal E. "Increased Expression of LGR5 might be related with stem cell like properties of Hepatocellular Carcinoma Cell Lines", Wnt 2009 meeting Abstract Book, pp.142, June 2009 **Washington DC, USA**
- **Kunter I.**, Atabey N, Erdal E. "LGR5 has been regulated by Wnt/B-cat signalling in HCC cells", Cell Signal-Omics, Abstract Book, January 2011, **Luxembourg**
- **Kunter I.**, Urgu K., Karaca C, Mıçılı S.C., Ergür U.B., Uzun B., Karagüler Z., Arıcan Z., Atabey N. "Noncultured and Cultured ADAS Treatment for Primary Wound Healing Following Radiotherapy", 1.st International conference/Workshop on Stem Cell and Applications, Abstract Book, pp. 42, September 2011, **Kayseri, Turkey**
- **Kunter I.**, Atabey N., Erdal E. "Characterisation of EpCAM+/CK19+ Hepatic Stem Cells in Hepatocellular Carcinoma", Cellular Signalling and Molecular Medicine EMBO congress, Abstract Book, May 2012, **Dubrovnik, Croatia**
- **Kunter I.**, Akbari S., Atabey N., Erdal E. "Involvement of LGR5/R-Spondin1 signaling to activation of Wnt/ β -catenin in Hepatocellular Carcinoma" EMBO Young Scientists' Forum, June 2012, **İstanbul, Turkey**
- Kurtalan S., Oztarhan A., Urkaç ES., Dağcı T., **Kunter I.** "Ion Implantation on Electrospun Fabricated Poly-L Lactide Caprolactone (PLC) Nanofibers for Cell Proliferation in Tissue Scaffolds" 22nd International Conference on the Application of Accelerators in Research and Industry, August 2012, **Texas, USA**
- Kurtalan S., Oztarhan A., Urkaç ES., Dağcı T., **Kunter I.** "Ion Implantation on Electrospun Fabricated Poly-L Lactide Caprolactone (PLC) Nanofibers for Cell Proliferation in Tissue Scaffolds" TERMIS-EU, **İstanbul Turkey**
- Kurtalan S., Oztarhan A., Urkaç ES., Dağcı T., **Kunter I.** . "Ion Implantation on Electrospun Fabricated Poly-L Lactide Caprolactone (PLC) Nanofibers for Cell Proliferation in Tissue Scaffolds" 18th International Conference on Surface Modification of Materials by Ion Beams, September 2013, **Kusadasi, Turkey**
- **Kunter I.**, Atabey N., Nart D., Yılmaz F., Karademir S., Sağol O., Erdal E."Active form of AKT controls cell proliferation and response to apoptosis in Hepatocellular Carcinoma" XIII. National Congress of Medical Biology and Genetics (With international participation), October 2013, **Kusadasi, Turkey**
- E Sahin, D Nart, **I Kunter**, E Kandemis, F Yılmaz Barbet, N Atabey, E Erdal. "Involvement of Intracellular Domain of EpCAM in Hepatocellular Carcinoma" 2014 2014 Annual Meeting USCAP, March 2014, **San Diego, USA**
- Najjar M, Subashi Y, Valizadeh P, Pournaiem S, Sanaat S, Sahin G, **Kunter I** "The Effects of Neopterin on the Proliferation and Motility of Different HCC Cell Lines" 36th International Winter-Workshop, Clinical, Chemical and Biochemical Aspects of Pteridines and Related Topics, February 2017, **Innsbruck, Austria**, Pteridines 2017; 28(1): 37–58
- B. Barbaros, B. Demirel, **I. Kunter** "Determination Of Malondialdehyde (MDA) Levels And Total Antioxidant Capacity (TAC) In Participants With High, Medium And Low Mediterranean Diet Adherence" **Copenhagen, Denmark**, 38th ESPEN(The European Society for Clinical Nutrition and Metabolism) Congress, September 2016; 35, S1-S280

Abstracts From National Meetings

- **Kunter I.**, Atabey N., Erdal E. "Role of PI3K/Akt/mTOR signalling pathway on HCC cell cycle control" 10. National Medical Biology and Genetic Congress, Abstract Book, pg. 100, October 2007, **Antalya, Turkey**
- İ. Durak, Ö. Barut Selver, E. Erdal, **İ. Kunter**, Z. Özbek, J M. Wolosin "Ocular surface reconstruction with cultured limbal epithelial cells in limbal stem cell deficiency" 44. National TOD Congress, Abstract Book, September 2010, **Antalya, Turkey**
- İ Durak, Ö. Barut Selver, E. Erdal, **İ. Kunter**, Z. Özbek, J M. Wolosin "Ocular surface reconstruction with cultured limbal epithelial cells in limbal stem cell deficiency: first year results" 45. National TOD Congress, Abstract Book, October 2011, **Cyprus**
- **Kunter I.**, Karakulah G., Atabey N., Erdal E. "Effect of lithium regulated Wnt-betacatenin activation on liver cancer stem cell phenotype" XII. National Medical Biology and Genetic Congress, October 2011, page 39, **Antalya, Turkey**
- Tercan Avcı S., **Kunter İ**, Atabey N, Erdal Ş," Lithium mediated cell cycle arrest effect on histon 3 methylation changes in HCC cell line HuH-7", XII. National Medical Biology and Genetic Congress Abstract Book, October 2011, **Antalya, Turkey**
- **Kunter İ.**, Atabey N., Erdal E., "Regulation of LGR5 expression by Wnt/ β -catenin signalling pathway in Hepatocellular carcinoma", IV. Multidisciplinary Cancer Research Congress Abstract book, December 2012 **Bursa, Turkey**
- Koc D, Gozukizil A, **Kunter I**, Atabey N, "Oxidative stress response in cancer stem-cell like and non-stem-cell like cells in hepatocellular carcinoma "National Medical Students Project Competition, Celal Bayar University, **Manisa, Turkey**
- Ersoy N., Kiray M., **Kunter I.**, Erdal E., Bağrıyanık A. E. "Effect of Mesenchymal Stem Cell on Torsion/Detorsion Rat Ovary" 13th National Histology and Embryology Congress with International Participation, May, 2016, Cell & Tissue Biology Research, Turkish Histology and Embryology Society, 2016; 5: 477 Çeşme, **İzmir, Turkey**
- Akbora D. H., **Kunter I.**, Erçetin T., Gülcan O., Elagöz M. A. , Çiçek A. B."Determination of Tetrodotoxin(TTX) levels in various tissues of the silver cheeked puffer fish (*Iagocephalus sceleratus* (gmelin, 1789)) found in seas of Northern Cyprus." International Symposium on Pufferfish, 13-14 October 2017 at Bodrum, Muğla, Turkey

SELECTED ORAL PRESENTATIONS

- **Kunter I.**, Ozdag H., Ilk G., Yilmaz S., Ilk O., Atabey N., Ozturk M., Erdal E. "Molecular Dynamics of the Lithium-mediated Growth Inhibition in Hepatocellular Carcinoma Cells", Workshop on Emerging Topics in Human Functional Genomics And Proteomics, May 2006, Antalya, Turkey.
- **Kunter I.**, Atabey N., Erdal E. "Role of PI3K/Akt/mTOR signalling pathway on HCC cell cycle control" 10. National Medical Biology and Genetic Congress, October 2007, Antalya, Turkey
- **Kunter I.**, Karakulah G., Atabey N., Erdal E. "Effect of lithium regulated Wnt-betacatenin activation on liver cancer stem cell phenotype" XII. National Medical Biology and Genetic Congress, October 2011, page 39, Antalya, Turkey
- **Kunter İ**, Akbari S, Atabey N., Erdal E. "Involvement of LGR5/R-Spondin1 signaling to activation of Wnt/ β -catenin in Hepatocellular Carcinoma" EMBO Young Scientists' Forum, June 2012, Istanbul
- Kurtalan S., Oztarhan A., Urkaç ES., Dağcı T., **Kunter İ**. "Ion Implantation on Electrospun Fabricated Poly-L Lactide Caprolactone (PLC) Nanofibers for Cell Proliferation in Tissue Scaffolds " European Materials Research Society 2013 Spring Meeting, Strasbourg, France
- Najjar M, Subashi Y, Valizadeh P, Sara Pournaiem S, Sonia Sanaat S, Sahin G, **Kunter I** "The Effects of Neopterin on the Proliferation and Motility of Different HCC Cell Lines" 36th International Winter-Workshop, Clinical, Chemical and Biochemical Aspects of Pteridines and Related Topics, February 2017, Innsbruck, Austria, Pteridines 2017; 28(1): 37–58
- Akbora D. H., **Kunter I.**, Erçetin T., Gülcan O., Elagöz M. A. , Çiçek A. B."Determination of Tetrodotoxin(TTX) levels in various tissues of the silver cheeked puffer fish (*Iagocephalus sceleratus* (gmelin, 1789)) found in seas of Northern Cyprus." International Symposium on Pufferfish, 13-14 October 2017 at Bodrum, Muğla, Turkey

PROJECTS

DEU Research Fund "The importance of PKB/Akt signalling pathway in HCC" *as a project member and researcher*, 2005

DEU Research Fund "The effect of wnt/ beta catenin signalling on non ischemic area after myocardial infraction", *as a researcher*, 2005

DEU Research Fund " In vitro culturing and characterization of limbal stem cell" *as a researcher*, 2006

TUBITAK 1001 " Investigation of PKB/Akt signalling pathway in HCC ", *as a project member and researcher*, 2006

DEU Research Fund " Genome wide effect of lithium in hepatocellular carcinoma", *as a project member and researcher*, 2008

DEU Research Fund "The effect of histon modification on cell proliferation in Hepatocellular carcinoma", *as a project member and researcher*, 2009

DEU Research Fund " In vivo cartilage making from adipose tissue derived adult mesenchymal stem cell under effect of perichondrium" , *as a researcher*, 2009

DEU Research Fund "Gene polymorphisms in fatty liver disease associated with

pediatric obesity" **as a researcher**, 2009

DEU Research Fund " Role of LGR5 in the proliferation HCC proliferation ", **as a project member and researcher**, 2010

DEU Research Fund " The effect of adipose tissue derived adult mesenchymal stem cell on hypertrophic scar tissue" **as a project member and researcher**, 2010

DEU Research Fund " Treatment effects of adipose tissue derived adult mesenchymal stem cell on primary wound healing, following Radiotherapy" **as a project member and researcher**, 2010

DEU Research Fund "The role of EpCAM signalling in Hepatocellular carcinoma", **as a project member and researcher**, 2012

TUBITAK 1001 "Investigation of the roles of EZH2, hypoxic microenvironment and reprogramming of pluripotency genes, KLF4, Oct3/4 on the liver cancer stem cell driven tumorigenesis" **as a project member and researcher**, 2012

TUBITAK 1001 " Ion beam modification and thin film Diamond Like Carbon (DLC) coating of polymeric surfaces for neural tissue regeneration and fabrication of large neural patterning", **as a co-researcher**, 2012

DEU Research Fund "The effect of mesenchymal stem cell on over totion-detortion" **as a researcher**, 2012

ACADEMIC AND TEACHING EXPERIENCE

Teaching/Laboratory Assistant: Dokuz Eylül University, Department of Medical Biology and Genetics

*2005-2006, TBG517, Basic Laboratory Techniques in Molecular Biology-1

Teaching/Laboratory Assistant: Dokuz Eylül University, Department of Medical Biology and Genetics

* 2005-2006, TBG524, Basic Laboratory Techniques in Molecular Biology-2

Teaching/Laboratory Assistant: Dokuz Eylül University, Department of Medical Biology and Genetics

* 2010-2011, TBG513, Basic Laboratory Techniques in Molecular Biology

Teaching/Laboratory Assistant: Dokuz Eylül University, Faculty of Medicine

* 2004-2013, All lectures of Medical Biology and Genetic Department at Term 1,2,3

Teaching/Laboratory Assistant: Dokuz Eylül University, Department of Medical Biology and Genetics

*2008-2010 Molecular Medicine Laboratory Rotation

Senior Instructor: Eastern Mediterranean University, Department of Biological Science

*2013-2014 BIO222 Biochemistry for Department of Nursing Department

*2013-2017 CHEM254 Biochemistry for Department of Pharmacy

*2013-2014 BIOL111 Medical Biology and Genetics for Department of

Nutrition And Dietetics

*2013-2014 BIOL124 Introduction to Molecular Biology and Genetics for

Department of Pharmacy- Biological Science

- *2013-2014 BIO220 Biochemistry for Department of Biological Science
- *2013-2014 BIOL214 Physiology for Department of Biological Science
- *2014-2016 MDCN244 Human Physiology for Department of Pharmacy
- *2014-2017 MDCN245 Molecular Physiology for Department of Pharmacy
- *2015-2017 PHAR456 Biological Products for Department of Pharmacy

RESEARCH
INTERESTS

- *Signal transduction in human malignancies
- * In vitro regulation of biological behavior of cells
- *Protein-protein interactions
- *Epigenetic regulations in cancer
- * Stem cell biology and regenerative medicine
- * Stem cell origin of cancer
- *Cancer biochemistry

SCIENTIFIC
CONFERENCE
ATTENDED

International or international participation

- First Annual TSRM Congress Reproductive Medicine and Genetics, September 2004, Istanbul, Turkey (**Participation**)
- Free Radicals, DNA Damage, DNA Repair And Relation With Disease Course, January 2005, Izmir, Turkey (**Participation**)
- 2. National Reproductive Medicine/13. International IVF and Genetic Congress, May 2005, Istanbul, Turkey (**Participation**)
- Transition Of Information Producing Society, October 2005, Izmir, Turkey (**organizing committee member**)
- European Society for Cardiovascular Surgery 55th International Congress, May 2006, St. Petersburg, Russia (**Poster Presentation**)
- Emerging Topics in human Functional Genomics and Proteomics, May 2006, Antalya, Turkey (**Oral Presentation**)
- 31st FEBS Congress , June 2006, Istanbul, Turkey (**Participation**)
- Apoptosis, Relation with Disease, Current detection methods Course, December 2006, Izmir, Turkey (**Participation**)
- XIV. Applied Flow Cytometry Training, June2008, Istanbul Turkey (**Participation**)
- 10. III. International Congress of Molecular Medicine, May 2009, Istanbul, Turkey (**Poster Presentation**)
- Wnt 2009 Meeting, June 2009 Washington DC, USA (**Poster Presentation**)

- Stem Cell Course and V. Stem Cell Symposium, June 2010, Ankara, Turkey **(Participation)**
- EMBL-EBI The Bioinformatics Road show, October 2010, Izmir, Turkey **(Organizing Committee Member)**
- Cell Signal Omics-2011 Integrated Cellular Pathology-Systems Biology of Disease, January 2011, Luxembourg **(Poster Presentation)**
- Current Topics in Cancer Biology Course, May 2011, Izmir , Turkey **(Participation)**
- 1.st International Conference/Workshop on Stem Cell and Applications, October 2011, Kayseri, Turkey **(Poster Presentation)**
- Cellular Signaling & Molecular Medicine, May 2012, Cavtat , Dubrovnik **(Poster presentation)**
- EMBO Young Scientists' Forum, June 2012, Istanbul, Turkey **(Oral Presentation)**
- 22nd International Conference on the Application of Accelerators in Research and Industry, August 2012, Texas, USA **(Poster presentation)**
- THERMIS-EU, Istanbul, Turkey **(Poster presentation)**
- *FEBS Special Meeting/Protein Quality Control In Health And Disease (7. proteolysis meeting)*, November 2012, Kuşadası, Turkey **(Participation)**
- 18th International Conference on Surface Modification of Materials by Ion Beams, September 2013, Kuadası, Turkey **(Poster presentation)**
- XIII. National Congress of Medical Biology and Genetics (With international participation) October 2013, Kuşadası, Turkey **(Poster Presentation)**
- European Materials Research Society 2013 Spring Meeting, Strasbourg, France **(Oral Presentation)**
- 2014 Annual Meeting USCAP, March 2014, San Diego, USA **(Poster Presentation)**
- 38th ESPEN (The European Society for Clinical Nutrition and Metabolism) Congress, September 2016, Copenhagen, Denmark, **(Poster Presentation)**
- 13th National Histology and Embryology Congress with International Participation (Cell & Tissue Biology Research, Turkish Histology and Embryology Society) May 2016, Çeşme, İzmir, Turkey **(Poster Presentation)**
- 36th International Winter-Workshop, Clinical, Chemical and Biochemical Aspects of Pteridines and Related Topics, February 2017, Innsbruck, Austria **(Oral Presentation)**
- 10th International Symposium on Health Informatics and Bioinformatics (HIBIT), June 2017, METU, Cyprus **(Participation)**
- International Symposium on Pufferfish, 13-14 October 2017 at Bodrum, Muğla, Turkey **(Oral Presentation)**

National

- Biology and Genetic Student Congress, May 2003, Izmir **(Participation)**
- Molecular Biology and Genetic Winter School, February 2004, Istanbul **(Participation)**
- Stem cell and Gene Therapy in Practical, May 2004, Istanbul **(Participation)**
- Aegean Genetic Symposium, November 2005, Izmir **(Participation)**
- IX. National Medical Biology Congress, November 2005, Manisa

(Participation)

- X. National Medical Biology and Genetic Congress, September 2007, Antalya, **(Oral Presentation)**
- Applied Oocytes micromanipulation and microinjection (ICSI-SUZI) Course, April 2009, Ankara **(Participation)**
- 44. National TOD Congress September 2010, Antalya, Turkey **(Poster Presentation)**
- Olympus “Recent Developments in Confocal Microscopy” Course, July 2011, Ankara **(Participation)**
- Genomic, Transcriptomic and Proteomic analysis of Molecular Bases of Disease, Course, November 2011, Ankara **(Participation)**
- 45. National TOD Congress, October 2011, Cyprus Turkey **(Poster Presentation)**
- XII. National Medical Biology and Genetic Congress, October 2011, Antalya **(Oral Presentation)**
- Analytical Quality and Reference Intervals Computing Courses for Clinical Laboratory, January 2012, Izmir **(Participation)**
- IV. Multidisciplinary Cancer Research Congress, December 2012, Bursa , Turkey **(Poster Presentation)**
- National Medical Students Project Competition, Celal Bayar University, Manisa, Turkey **(Oral Presentation)**
- FARMMED 2017, Reçete Dışı Farmasötik Ürünler ve Medikal Malzemeler Kongresi, Nisan 2017, Girne, Kuzey Kıbrıs **(Participation)**

SCOLARSHIPS

- TUBITAK. Young Scientist Support Group “Master Scholarship” 2005-2007
- 1st international Conference on Stem Cell Research and Applications. Conference attending Scholarship 2011
- TUBITAK Conference attending Scholarship 2013

AWARDS

- “Second Highest Honor of the Department of Biochemistry ”2004
- “Distinguished Young Scientific Award in Stem Cell Research” GenoCell 1st international Conference on Stem Cell Research and Applications. Individual Award, 2011
- “The Best Scientific Poster Award in Stem Cell Research” 1st international Conference on Stem Cell Research and Applications. Individual Award, 2011
- “ Turkish Medical Specialist Research Award-Experimental Category” Group Award
- “Poster award” IV. Multidisciplinary Cancer Research Congress, Individual Award, 2012

TECHNICAL SKILLS

Molecular Biology and Genetic (Active):

- *DNA, RNA and protein isolation from different samples,
- * cDNA synthesis, Reverse Transcriptase PCR (RT-PCR), Real-Time PCR (RT-PCR)
- *Cloning techniques, stable and transient overexpression and silencing genes in mammalian cells (RE digestion, ligation; transformation, transfection, plasmid isolation ...)
- *Western Blotting, immunoprecipitation, histone extraction; immunochemistry, immunofluorescence in tissue and cell culture
- *Eliza and using luciferase reporter systems in transcriptional analyses.
- * Preparing human metaphase and human chromosome analysis.
- *Using all needed equipment during these experiments.

Cell Biology (Active):

- *Preparing and maintains cell culture, making primer culture from tissue
- *Cell subpopulation isolation with Magnetic Activated Cell Sorting(MACS)
- *Flow cytometry and cell cycle analysis(Flow-FACS)
- *Different proliferation and viability analysis (BrdU incorporation, MTT, LDH, Real time Xcelligence analysis)
- *Real time (Xcelligence) and end point (boyden chamber) invasion and motility analysis and wound healing motility analysis, spheroid colony assays in soft agar and other extracellular matrix component
- *Using all needed equipment during these experiments.

Microscopy Competen (Active):

- *Light, Confocal, time laps and Fluorescence Microscopy
- *Specimens, cutting paraffin and frozen sections,
- * Capture of images-electronic format manipulation

Bioinformatical Tools and Computational Skills (Active):

- *Similarity search (NCBI-Blast), sequence alignment (ClustalW, Multalin), translation tool (ExPaSy), primer design (Vector NTI, Primer3, IDT), Databank (GenBank, Ensemble)

Statistic (Active):

- *Basic statistical analysis with SPSS and Graf PATH Prism programs

Diagnosis test (Active)

- *All biochemical diagnostic analysis

- *Coagulation tests
- *Florescence In Situ Hybridisation (FISH) analysis
- *Chromosome analysis (macro instability analysis) from human peripheral blood, bone marrow, amniotic fluid
- *Basic routine hematological, microbiological, serological tests
- *Urine and feces tests

(Non-active)

- *Hemoglobin electrophoresis
- *Human sperm egg quality analysis
- *BCR/ABL translocation analysis
- *Intra Cytoplasmic Sperm Injection (ICSI)

REFERENCES

-Prof. Dr. Neşe Atabey, Dokuz Eylül University, Faculty of Medicine, Chef of Department of Medical Biology and Genetics nese.atabey@deu.edu.tr

-Prof. Dr. Esra Erdal Dokuz Eylül University, Department of Medical Biology and Genetics esra.erdal@deu.edu.tr

- Prof. Dr. Alper Bağrıyanık Dokuz Eylül University, Department of Histology alper.bagriyanik@deu.edu.tr

- Prof. Dr. Mehmet Öztürk Izmir Biomedicine and Genom (IBG) Institute, İzmir mhmtozturk2023@gmail.com

- Prof. Dr. Fethi Şahin Eastern Mediterranean University , Faculty of Pharmacy fethi.sahin@emu.edu.tr