

## Curriculum Vitae

### 1. Personal profile

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| Surname       | SİPAHİ  |
| First name(s) | Murat   |
| Date of birth | 13/04/1986  |
| Address       | Dokuz Eylul University School of Health Sciences<br>Department of Medical Biochemistry Department<br>35340 Inciralti/İZMİR                                  |
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### 2. Education

| PhD education                    |   |
|----------------------------------|---|
| Dates: from-to                   | <b>2013-present</b>   |
| Institution                      | Dokuz Eylul University  |
| Country of Institution           | TURKEY  |
| Project title                    | <b>THE EFFECTS OF N-MYC DOWNSTREAM REGULATED GENE-2 (NDRG2) ON EPITHELIAL MESENCHYMAL TRANSITION IN THYROID CANCER</b>  |
| PI/supervisor                    | Prof. Dr. Gülgün OKTAY  |
| Research description (100 words) | The aim of research is to evaluate the effects of NDRG2 on epithelial mesenchymal transition in thyroid cancer cells. To achieve this purpose, the alterations in Snail, Slug, Twist, Vimentin (EMT markers) and E-cadherin (MET marker) expressions as well as metastatic cell behavior (invasion, migration and adhesion) will be investigated after NDRG2 plasmid and siRNA transfections. |
| Detail any period spent abroad   |   |

| Master(s) education    |   |
|------------------------|---|
| Dates: from-to         | <b>2010-2013</b>  |
| Institution            | Dokuz Eylul University  |
| Country of Institution | TURKEY  |
| Project title          | <b>THE POSSIBLE EFFECT OF CALCITRIOL ON NDRG2 (N-MYC DOWNSTREAM REGULATED GENE-2) AND NIS (SODIUM-IODIDE SYMPORTER) GENE EXPRESSIONS IN UNDIFFERENTIATED HUMAN ANAPLASTIC THYROID</b> |

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| PI/supervisor                    | Prof. Dr. Gülgün OKTAY  |
| Research description (100 words) | The aim of our study was to compare the basal NDRG2 and NIS gene expressions in normal human thyroid follicular epithelial cells (N-thy-ori-3-1) and undifferentiated human anaplastic thyroid carcinoma cells (8505C) and to investigate the possible effects of 1,25- dihydroxyvitamin D3 (calcitriol) treatment on NDRG2 and NIS gen expressions in 8505C cells. Basal NDRG2 and NIS gene expressions were significantly higher in Nthy-ori- 3-1 cells compared to 8505C cells. However, 8505C cells treated with 60µM calcitriol for 24 and 48 hours didn't show any alterations on NDRG2 and NIS gene expressions. |

| <b>Bachelor(s) education</b> |                |
|------------------------------|----------------|
| Dates: from-to               | 2005-2010      |
| Institution                  | Ege University |
| Country of Institution       | TURKEY         |

### 3. Other research or relevant work experience

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| Dates: from-to      | <b>2018-present</b>  |
|                     | <b>Evaluation of Synergistic Effects of Metformin and Dichloroacetate on Mitochondrial Energy Metabolism and Chemosensitivity of Cetixumab in Oral Cavity Cancer: Drug Repositioning</b>   |
| Dates: from-to      | <b>2017-present</b>  |
| Details (100 words) | <b>Repositioning of antipsychotic drugs, Sertaline and Penfluridol in Human Glioblastoma Cells</b><br>The aim of this research project is to investigate the effects of antipsychotic drugs sertraline and penfluridol on apoptosis, cell cycle, cell survival and metastatic cell behavior in human glioblastoma cell lines (U87 and U251) and to contribute to new treatment approaches.   |
| Dates: from-to      | <b>2017-present</b>  |
| Details (100 words) | <b>Investigation of the Role of Mitochondrial Glucose Metabolism Related with HIF-1alpha in the Hypoxic Microenvironment of Head and Neck Cancer Cells</b><br>The aim of this study is to determine the changes of gene and protein expression levels of PDK under hypoxic and normoxic conditions by using spesific and non-spesific inhibitors that modulate HIF-1alpha, and to investigate the effect of DCA which inhibits Pyruvate Dehydrogenase Kinase on cell viability in oral cavity cancer cell line (UPCI-SCC-131). |
| Dates: from-to      | <b>2015-2018</b>   |
| Details (100 words) | <b>Investigation of Functional Effects of Matrix Metalloproteinase-9 on Voltage-Gated Sodium Channel</b>   |

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|                     | <p><b>Nav1.5 and <math>\beta</math>1 Regulation in Metastatic MDA-MB-231 Human Breast Cancer Cells</b></p> <p>The main aim of our project is to examine mechanistically mutual functional interactions involving MMP-9, Voltage-gated sodium channel (VGSC) subtype Nav1.5, and the VGSC<math>\beta</math> subtype, <math>\beta</math>1. Mainly the metastatic human breast cancer MDA-MB-231 cells will be used as a model to shed light on the metastatic process. In this project, we shall determine for the first time how MMP-9, which is in the upstream of VGSC, affects alpha and beta subunit expression and how these effects contribute to the process of invasion and metastasis.</p> |
| Dates: from-to      | <b>2008-2011</b>   |
| Details (100 words) | <b>Investigation of expression alterations of migration and invasion related molecules in primary colorectal and metastatic liver tumors in relation to clinicopathological variables</b>  |
| Dates: from-to      | <b>2009-2016</b>   |
| Details (100 words) | <b>Determination of possible relation between RhoC and extracellular proteolysis in terms of invasion and metastasis in colon cancer cells</b>   |

#### 4. Awards or grants

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| Date        | <b>2011</b>  |
| Description | Poster award for "The effects of RhoC, ROCK-II and MMP-2 on colorectal cancer invasion" at 23th National Biochemistry Congress, Adana, Turkey. |
| Date        | <b>2011</b>  |
| Description | Registration and Accommodation Grant for "23th National Biochemistry Congress" supported by Turkish Biochemical Society, Adana, Turkey.        |

#### 5. Major conferences and courses attended

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| Date        | <b>2015</b>  |
| Description | EACR-Sponsored 3rd Anticancer Agent Development Congress, İzmir, TURKEY                                      |
| Date        | <b>2013</b>  |
| Description | XI. International Cartilage Repair Society (ICRS) Conference, İzmir, TURKEY                                  |
| Date        | <b>2012</b>  |
| Description | FEBS ADVANCED COURSES, Protein Quality Control and Ubiquitin Systems in Health and Disease, Kuşadası, TURKEY |

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## 6. Publications

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| <p><b>Poster communications</b></p> | <ol style="list-style-type: none"><li>1. Inanc S, Keles D, <b>Sipahi M</b>, Baskin Y, Oktay G. Effects Of Metformin And Dichloroacetate On Mitochondrial Energy Metabolism In Oral Cavity Cancer Cells, The 43rd Febs Congress, Prague, 2018.</li><li>2. <b>Sipahi M</b>, Keles D, Djamgoz M B, Oktay G. Sirna-directed Inhibition Of SCN5A Increases Matrix Metalloproteinase-9 Expression And Activity In MDA-MB-231 Metastatic Breast Cancer Cells, The 43rd Febs Congress, Prague, 2018.</li><li>3. Keles D, <b>Sipahi M</b>, Djamgoz M B, Oktay G. Tetracaine Suppress Metastatic Cell Behaviors Through Regulating Matrix Metalloproteinase-2/-9 And TIMP-2 Levels In Metastatic Breast Cancer Cells, The 43rd Febs Congress, Prague, 2018.</li><li>4. Keles D, Oktay G, <b>Sipahi M</b>, Inanc S, Djamgoz MBA. The effect of voltage-gated sodium channel on matrix metalloproteinase expression and activity in human breast cancer cells, 40th FEBS Congress The Biochemical Basis of Life, (FEBS Journal), Münih-Germany, 2015.</li><li>5. Keles D, Oktay G, <b>Sipahi M</b>, Inanc S, Djamgoz MBA. Matrix Metalloproteinase Expression and Activity in Human Breast Cancer Cells: Association with Voltage-Gated Sodium Channel, 3rd EACR-Sponsored Anticancer Agent Development Congress, Izmir- Turkey, 2015</li><li>6. Keles D, <b>Sipahi M</b>, Inanc S, Oktay G. RHOC-GTPase promotes colon cancer cell invasion in matrixmetalloproteinase dependent manner, FEBS EMBO 2014 Congress, (FEBS Journal) Paris – France, 2014.</li><li>7. <b>Sipahi M</b>, Keles D, Calan M, Bayraktar F, Oktay G. The effects of calcitriol on N-MYC downstream regulated gene-2 and sodium-iodide symporter gene expressions in undifferentiated humananaplastic thyroid cancer cell line, FEBS</li></ol> |
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|  | <p>EMBO Congress, (FEBS Journal) Paris – France, 2014.</p> <p>8. Keles D, İnanç Ş, Canda E A, Terzi C, <b>Sipahi M</b>, Ellidokuz H, Füzün M, Oktay G. The Effects of Rhoc, RockII and MMP-2 on Colorectal Cancer Invasion; Turkish Journal of Biochemistry: Congress Special Issue 1 Vol 36 p: 97; (2011).</p> <p>9. İnanç Ş, Keleş D, Canda E A, Ünek T, <b>Sipahi M</b>, Terzi C, Karadermir S, Astarcioglu İ, Oktay G. Contribution of Rhoc to liver Metastasis of Colorectal Cancer Through MMP-2 Activation; Turkish Journal of Biochemistry: Congress Special Issue 1, Vol 36 p: 100; (2011).</p> |
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