


PERSONAL INFORMATION

MUSTAFA TITİZ



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Sex Male | Date of birth 08/08/1993 | Nationality Turkish

WORK EXPERIENCE

- 2023 – **Research Assistant – Izmir Institute of Technology**
 Prof. Sinan Güven, Dokuz Eylul University
- Taking role for the MSCA co-funded project titled “ Organoid Based On-Chip Disease Models”
[Business or sector](#) ACADEMIA
- 2019 – 2023 **Research Fellow - Department of Health Science, Pharmacology and Oncology, University of Florence**
 Prof. Piarengelo Geppetti, Università Degli Studi Firenze
- Taking role for the ERC project titled “Schwann Cell Options for chronic Pain Eradication”.
[Business or sector](#) ACADEMIA
- 2017 – 2019 **Researcher – Department of Physiology, Acibadem Mehmet Ali University**
 Prof. Güldal Süyen, Acibadem Mehmet Ali Aydınlar University
 Taking role at the projects titled as;
- Monoclonal antibody production for early diagnosis of prostate cancer
 - Development of antimicrobial peptides and mimicking molecules through inspiration from nature (supported by TUBITAK, budget 500,000.00 euro)
 - Investigation of mitochondrial dynamics in valproic acid - induced autism model in rats through developmental stage
 - Investigation of the effects of phytosome curcuminoids and probiotic use on hippocampus, prefrontal cortex, cerebellum, testis, and epididymis tissue in rats with type-2 diabetes.
[Business or sector](#) ACADEMIA & INDUSTRY
- 2016 – 2016 **Erasmus Intern – Department of Neurobiology, University of Heidelberg**
 Prof. G. Elisabeth Pollerberg, University of Heidelberg
- I had an opportunity to conduct scientific research on axonal navigation mechanisms of nerve cells by looking to interaction of ERM (Exrin-Radexin-Moesin) family proteins with ALCAM (Activated Leukocyte Cell Adhesion Molecule). (4 months)
[Business or sector](#) ACADEMIA
- 2014 – 2016 **Researcher – Regenerative and Restorative Medicine Research Centre, Istanbul Medipol University**
 Prof. Gürkan Öztürk, Istanbul Medipol University
 Taking role at the projects titled as;
- Designing laser axotomy model on cultured hippocampal neuron for axonal regeneration
 - The possible protective effects of curcumin emulsome on damaged hippocampal neurons by laser axotomy (supported by TUBITAK, budget: 70,000.00 euro)
[Business or sector](#) ACADEMIA
- 2013 – 2014 **Researcher – Bio & Nano Technology R&D Centre, Istanbul University**
 Prof. Mehmet Şenel, University of California
- Development of glucose and toluene biosensors
 - Electricity production from C. Reinhardtii by Biophotovoltaic system
[Business or sector](#) ACADEMIA

EDUCATION AND TRAINING

- 2023 - ... **BIOTIN Ph.D. Program in Biomedicine and Health Technologies**
DOKUZ EYLUL UNIVERSITY –Izmir International Biomedicine and Genome Institute, (Ph.D. scholarship is co-funded by **MSCA** (Marie Skłodowska-Curie Action) and **TUBITAK** (Scientific and Technological Research Council of Turkey)
- 2020 – 2023 **Tuscany Ph.D. in Neuroscience Program**
UNIVERSITA DEGLI STUDI FIRENZE – Department of Neuroscience, Psychology, Medication Area, and Child Health, (Ph.D. scholarship funded by European Research Council – ERC)
- 2017 – 2019 **Physiology MSc. Program – GPA 3.25/4.00**
ACIBADEM MEHMET ALI AYDINLAR UNIVERSITY – School of Medicine – Basics Sciences - Department of Physiology
- 2016 – 2017 **Neuroscience Ph.D. Program (Drop out) (Financial reason)**
ISTANBUL MEDI POL UNIVERSITY - Graduate School of Health Sciences
- 2011 – 2016 **Bachelor Program in Genetics and Bioengineering – GPA 3.35/4.00**
ISTANBUL UNIVERSITY - Faculty of Engineering - Department of Genetics and Bioengineering

PERSONAL SKILLS

Mother tongue(s)	Turkish				
	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Other language(s)					
English	C1	C1	C1	C1	C1
French	A2	A2	A2	A2	A2
Italian	A2	A2	A2	A2	A2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills ▪ Good communication skills gained through my experiences in international laboratories and congress.

Organisational / managerial skills ▪ Mentor for students doing thesis work
▪ Effective Laboratory Management

Job-related skills ▪ Organized, clean, and responsible at the workplace
▪ Good command of team-based or solo-based working environment
▪ Animal Behavior Tests (Open-field, Morris-water-maze, Elevated plus maze, Y-maze, Three-chamber social interaction, Tail-flick, von Frey hair test)
▪ Transgenic Animals Care and Breeding
▪ Stereotaxic Intracranial Injection (mouse and rats)
▪ In Vitro Fertilization (IVF) for transgenic mouse line rederivation/reanimation
▪ Fluo-4 AM and FURA-2 staining for calcium imaging
▪ Primary Hippocampal Neuron Culture (Mouse)
▪ Primary DRG Neuron Culture (Mouse, Rat)
▪ Primary Schwann Cell Culture (from mouse sciatic nerve)
▪ Primary Keratocyte Cell Culture (from Human cornea)
▪ Secondary Cell Culture (HEK293, HeLa, E. coli-DH5 α , B16-F10, Human Schwann Cell)
▪ Transfection of avian/mammalian cells, cloning of plasmid vectors
▪ Immunofluorescent Staining for protein visualization
▪ Protein Isolation & Quantification, Western Blotting, SDS-PAGE
▪ DNA, RNA Isolation, qRT-PCR

Computer skills ▪ Microsoft Office (Word, Power Point, Excel, EndNote)
▪ Java, Python, Fiji ImageJ Programming
▪ SPSS and Prism-GraphPad Statistics Programming
▪ Solid Works (3D engineering software)
▪ Adobe (Illustrator, Photoshop)
▪ Vector NTI, PyMol, AutoDock Vina, VMD, NAMD

- Publication
1. E. Cevik, **M. Titiz**, M. Senel, “Light-dependent photocurrent generation: Novel electrochemical communication between biofilm and electrode by ferrocene cored Poly(amidoamine) dendrimers”, *Electrochimica Acta* 291 (2018) 41-48.
 2. De Logu, F., Trevisan, G., Marone, I. M., Coppi, E., Padilha Dalenogare, D., **Titiz, M.**, Marini, M., Landini, L., Souza Monteiro de Araujo, D., Li Puma, S., Materazzi, S., De Siena, G., Geppetti, P., & Nassini, R. (2020). Oxidative stress mediates thalidomide-induced pain by targeting peripheral TRPA1 and central TRPV4. *BMC biology*, 18(1), 197.
 3. Dalenogare, D. P., Theisen, M. C., Peres, D. S., Fialho, M., Andrighetto, N., Barros, L., Landini, L., **Titiz, M.**, De Logu, F., Oliveira, S. M., Geppetti, P., Nassini, R., & Trevisan, G. (2022). Transient receptor potential ankyrin 1 mediates headache-related cephalic allodynia in a mouse model of relapsing-remitting multiple sclerosis. *Pain*, 163(7), 1346–1355.
 4. De Logu, F., Souza Monteiro de Araujo, D., Ugolini, F., Iannone, L. F., Vannucchi, M., Portelli, F., Landini, L., **Titiz, M.**, De Giorgi, V., Geppetti, P., Massi, D., & Nassini, R. (2021). The TRPA1 Channel Amplifies the Oxidative Stress Signal in Melanoma. *Cells*, 10(11), 3131.
 5. De Logu, F., Nassini, R., Hegron, A., Landini, L., Jensen, D. D., Latorre, R., Ding, J., Marini, M., Souza Monteiro de Araujo, D., Ramirez-Garcia, P., Whittaker, M., Retamal, J., **Titiz, M.**, Innocenti, A., Davis, T. P., Veldhuis, N., Schmidt, B. L., Bunnett, N. W., & Geppetti, P. (2022). Schwann cell endosome CGRP signals elicit periorbital mechanical allodynia in mice. *Nature communications*, 13(1), 646.
 6. Landini, L., Souza Monteiro de Araujo, D., **Titiz, M.**, Geppetti, P., Nassini, R., & De Logu, F. (2022). TRPA1 Role in Inflammatory Disorders: What Is Known So Far? *International journal of molecular sciences*, 23(9), 4529.
 7. De Logu, F., Maglie, R., **Titiz, M.**, Poli, G., Landini, L., Marini, M., Souza Monteiro de Araujo, D., De Siena, G., Montini, M., Cabrini, D. A., Otuki, M. F., Pawloski, P. L., Antiga, E., Tuccinardi, T., Calixto, J. B., Geppetti, P., Nassini, R., & André, E. (2022). miRNA-203b-3p Induces Acute and Chronic Pruritus through 5-HTR2B and TRPV4. *The Journal of investigative dermatology*, S0022-202X (22)01883-8.
 8. De Logu F, De Siena G, Landini L, Marini M, Souza Monteiro de Araujo D, Albanese V, Preti D, Romitelli A, Chieca M, **Titiz M**, Iannone LF, Geppetti P, Nassini R. Non-neuronal TRPA1 encodes mechanical allodynia associated with neurogenic inflammation and partial nerve injury in rats. *Br J Pharmacol*. 2022 Dec 9.
 9. Landini L, Marini M, Souza Monteiro de Araujo D, Romitelli A, Montini M, Albanese V, **Titiz M**, Innocenti A, Bianchini F, Geppetti P, Nassini R, De Logu F. Schwann Cell Insulin-like Growth Factor Receptor Type-1 Mediates Metastatic Bone Cancer Pain in Mice. *Brain Behav Immun*. 2023 Mar 18:S0889-1591(23)00070-3.
 10. Dalenogare, D.P., Souza Monteiro de Araújo, D., Landini, L., **Titiz, M.**, de Siena, G., De Logu, F., Geppetti, P., Nassini, R., & Trevisan, G. (2023). Neuropathic-like Nociception and Spinal Cord Neuroinflammation Are Dependent on the TRPA1 Channel in Multiple Sclerosis Models in Mice. *Cells*. 2023 May 30;12(11):1511.
 11. Marini M, **Titiz M**, Souza Monteiro de Araujo D, Geppetti P, Nassini R, De Logu F. TRP Channels in Cancer: Signalling Mechanism and Translational Approaches. *Biomolecules* 2023 Oct 22;13(10):1557.
 12. Brum ES, Fialho MFP, Souza Monteiro de Araújo D, Landini L, Marini M, **Titiz M**, Kuhn BL, Frizzo CP, Araújo PHS, Guimarães RM, Cunha TM, Silva CR, Trevisan G, Geppetti P, Nassini R, De Logu F, Oliveira SM. Schwann cell TRPA1 elicits reserpine-induced fibromyalgia pain in mice. *Br J Pharmacol*. 2024 May 21.
 13. **Titiz, M.**, Landini, L., Souza Monteiro de Araujo, D., Marini, M., Seravalli, V., Chieca, M., Pensieri, P., Montini, M., De Siena, G., Pasquini, B., Vannuccini, S., Iannone, L. F., Cunha, T. M., Brancolini, G., Bellantoni, E., Scuffi, I., Masticci, A., Tesi, M., Di Tommaso, M., Petraglia, F., ... De Logu, F. (2024). Schwann cell C5aR1 co-opts inflammasome NLRP1 to sustain pain in a mouse model of endometriosis. *Nature communications*, 15(1), 10142.

Posters & Presentations

INTERNATIONAL EVENTS

1. **M. Titiz**, F. De Logu, M. Marini, L. Landini, G. De Siena, M. Marangoni, P. Geppetti, R. Nassini, “Thalidomide instigate peripheral neuropathy via TRPA1 and TRPV4 targeted oxidative stress”, *Societa Italiana di Farmacologia 40th National Congress, 09-13 March 2021, Virtual Mode. (Poster)*
2. **M. Titiz**, F. De Logu, M. Marini, L. Landini, G. De Siena, M. Marangoni, P. Geppetti, R. Nassini, “Thalidomide induces peripheral neuropathy by oxidative stress mediated TRPA1 and TRPV4 activation”, *European Pain School 2021, 14-19 June 2021, Virtual Mode. (Oral Presentation)*
3. **M. Titiz**, L. Landini, F. De Logu, V. Seravalli, B. Pasquini, D. Souza Monteiro de Araujo, M. Di Tommaso, F. Petraglia, P. Geppetti, R. Nassini, S. Benemei, “Transient receptor potential ankyrin 1 (TRPA1) contributes to mechanical hypersensitivity in a mouse model of endometriosis”, *European Pain School 2022, 11-18 June 2022, Siena – Italy. (Oral Presentation)*
4. **M. Titiz**, F. De Logu, M. Marini, L. Landini, G. Di Siena, M. Marangoni, P. Geppetti, R. Nassini, “Thalidomide instigate peripheral neuropathy via TRPA1 and TRPV4 targeted oxidative stress”, *12th Congress of the European Pain Federation EFIC, 27-30 April 2022, Dublin-Ireland. (Poster)*
5. Evelyne S. Brum, L. Landini, D. Souza Monteiro de Araujo, **M. Titiz**, F. De Logu, P. Geppetti, R. Nassini, Sara M. “Oliveira Oxidative Stress from Macrophages Contributes to Reserpine-

- induced Periorbital Mechanical Allodynia in an Experimental Fibromyalgia Model in Mice”
IASP World Congress on Pain, 19-23 September 2022, Toronto-Canada (Poster)
6. **M. Titiz**, L. Landini, F. De Logu, V. Seravalli, B. Pasquini, D. Souza Monteiro de Araujo, M. Di Tommaso, F. Petraglia, P. Geppetti, R. Nassini, S. Benemei, “Transient receptor potential ankyrin 1 (TRPA1) contributes to mechanical hypersensitivity in a mouse model of endometriosis” **Best Poster Award** on the XXV Conference Young SIF Pharmacologists, Urbino 5-8 September 2023.

NATIONAL EVENTS

7. **M. Titiz**, S. Çilingir, G. B. Ertosun, D. Acar, M.Ş. Yavuz, G. Kırıkçı, G.G. Süyen, “Investigation of the influence of music on behavioral findings by valproic acid induced autism model in rats”, *Acta Physiologica (Oxford, England), Turkish Society of Physiological Sciences 44th National Physiology Congress, 01-04 November 2018, Antalya (Turkey)*. (Poster)

- Projects**
- Schwann Cell Options for chronic Pain Eradication (**supported by ERC**, budget 2 million euro, under the supervision of Prof. Pierangelo Geppetti at the University of Florence)
 - Development of antimicrobial peptides and mimicking molecules through inspiration from nature (**supported by TUBITAK**, budget 500,000.00 euro, under the supervision of Prof. Güldal Süyen at the Acibadem Mehmet Ali Aydınlar University)
 - The possible protective effects of curcumin emulsome on damaged hippocampal neurons by laser axotomy (**supported by TUBITAK**, budget: 70,000.00 euro)
- Memberships**
- Turkish Society of Physiological Sciences (TFBD)
 - Società Italiana per lo Studio delle Cefalee (SISC)
 - Società Italiana di Farmacologia (SIF)
- Certificates**
- Laboratory Animal Science Certificate (FELASA- Category A, B, C, D) is accredited between 2019-2024
- References**
- Prof. Piarengelo GEPPETTI
 Department of Health Science (DSS), Università Degli Studi Firenze
 Mail: pierangelo.geppetti@unifi.it
 Website: <https://www.unifi.it/p-doc2-2016-0-A-2b31342b332b-1.html>
 - Prof. Güldal SÜYEN
 Vice-Chancellor & Head of Physiology Department at Acibadem Mehmet Ali Aydınlar University
 Mail: Guldal.SUYEN@acibadem.edu.tr
 Website: <https://avesis.acibadem.edu.tr/Guldal.SUYEN>
 - Prof. G. Elisabeth POLLERBERG
 Centre For Organismal Studies (COS), Developmental Neurobiology Group
 Mail: g.e.pollerberg@cos.uni-heidelberg.de
 Website: <http://www.cos.uni-heidelberg.de/index.php/ge.pollerberg?l=e>