

## CURRICULUM VITAE

### Muge SENARISOY

---

**Born:** Jan 1<sup>st</sup> 1988  
**Nationality:** Turkish  
**Marital Status:** Married  
**Address:** Institut de l'Audition, Institut Pasteur  
63 Rue de Charenton  
75012, PARIS, FRANCE  
(+33) 1 76 53 50 14 (Lab)  
**Telephone:** (+33) 7 66 38 91 48 (Mobile)  
[muge.senarisoyp@pasteur.fr](mailto:muge.senarisoyp@pasteur.fr)  
**E-mail:** [muge.senarisoyp@gmail.com](mailto:muge.senarisoyp@gmail.com)



---

#### EDUCATION:

- 02.2014 - 09.2018: **Joint Ph.D. in Biotechnology**, Université Grenoble Alpes, Ecole Doctorale Chimie et Sciences du Vivant, Grenoble, France and Ege University, Graduate School of Natural and Applied Sciences, Izmir, Turkey. Thesis defence: 27<sup>th</sup> Sept. 2018.  
**Title of thesis:** Evaluation of YB-1 transcriptional factor, DNA glycosylase hNTH1 and human topoisomerase I functions in relation to drug resistance and DNA repair mechanisms.
- 09.2010 - 06.2013: **M.Sc. in Biotechnology**, Ege University, Graduate School of Natural and Applied Sciences, Izmir, Turkey.  
**Title of thesis:** Differential characterization of the biological activity of Temozolomide.
- 09.2005 - 06.2010: **B.Sc. in Biology**, Ege University, Faculty of Science, Department of Biology, Molecular Biology and Genetic Program, Izmir, Turkey.  
**Title of thesis:** Telomeric repeat maintenance in experimental renal ischemia/reperfusion model and its relation to apoptosis.

#### WORK EXPERIENCE:

- 01.2022-to date: **Post-Doc**, Team Progressive Sensory Disorders, Pathophysiology and Therapy, Institut de l'Audition, Institut Pasteur, Paris, France.  
Supervisor/P.I.: Dr. Aziz El-Amraoui
- 11.2021-12.2021: **Post-Doc position in Biochemistry**, Team Enzymology and Non Ribosomal Peptide Biosynthesis, Institute for Integrative Biology of the Cell (I2BC), Gif-sur-Yvette, France. Supervisor/P.I.: Dr. Muriel Gondry
- 02.2019-10.2021: **Post-Doc position in Biochemistry**, Team Bacteriophage T5, Department of Virology, Institute for Integrative Biology of the Cell (I2BC), Gif-sur-Yvette, France. Supervisor/P.I.: Dr. Pascale Boulanger
- 05.04.2018-30.09.2018: **PhD student** at Pharmacy Department, Ege University, Izmir, Turkey.  
Supervisor/P.I.: Prof. Dr. Zeki Topcu
- 04.10.2015-04.04.2018: **PhD student** at the Institut de Biologie Structurale in Grenoble, France.  
Fellowships from The Scientific and Technological Research Council of Turkey (TUBITAK) and Labex GRAL. Supervisor/P.I.: Dr. Joanna Timmins
- 02.2013-03.2015: PhD student at Pharmacy Department, Ege University, Izmir, Turkey. **Project Assistant**, TUBITAK- SBAG112S492. Supervisor/P.I.: Prof. Dr. Zeki Topcu
- 
- 17.09.2012-15.02.2013: Master student, **LLP/ Erasmus Exchange Program**, Université Joseph Fourier, Department of Chemistry and Biology, Grenoble, France.  
**Internship project:** Recognition of UV-induced DNA lesions by the UvrA1 and UvrA2 proteins, Institut de Biologie Structurale, Supervisor: Dr. Joanna Timmins
- 11.2010-10.2011: Master student, **Project Assistant**, "Role of the human ADA3 protein in transcriptional regulation and its interactions with other transcriptional regulators", TUBITAK- TBAG108T945; "Differential characterization of the biomolecular interactions of DNA topoisomerase-targeting potential anti-cancer agents", TUBITAK-TBAG 108T548. Supervisor/P.I.: Prof. Dr. Zeki Topcu

- 05.2011: Master student, **Laboratory Trainee**, University of Szeged, Department of Biochemistry and Molecular Biology, Szeged, Hungary, Supervisor: Dr. Imre Boros
- 02-03.2009: Bachelor student, **Laboratory Trainee**, Laboratory of Molecular Medicine Research, Ege University Children Hospital, Izmir, Turkey.  
**Internship project:** Genetic screening tests of Familial Mediterranean Fever, Supervisor: Prof. Dr. Afig Berdeli

#### COURSES / CONGRESS:

- 10.2021: Conference "Phages in Roscoff", Roscoff, France.
- 10.2019: Conference "Phages in Grenoble", Grenoble, France.
- 06.2019: Training School on Molecular Scale Biophysics (MoSBio): "Macromolecular interactions *in vitro*, comparing classical and new approaches", Gif-sur-Yvette, France.
- 09.2017: EMBO workshop "DNA topoisomerases and DNA topology", Les Diablerets, Switzerland.
- 06.2016: EMBO workshop "Fluorescence microscopy methods to study protein-protein interactions in living cells", Rennes, France.
- 11.2015: 11ème rencontre Plasticité et Instabilité du Génome, Gif-sur-Yvette, France.
- 10.2014: GTBio Réunion du Groupe Thématique Biologie de l'Association Française de Cristallographie, Grenoble, France.
- 
- 07.2011: 36th FEBS, Federation of European Biochemical Societies Congress, "Biochemistry for Tomorrow's Medicine", Turin, Italy.
- 08.2009: Ege University International 3. Molecular Biology and Genetics Application with Research Platform, Izmir, Turkey.

#### TECHNICAL EXPERTISE:

Molecular biology: PCR, cloning (using both ligase dependent and ligase independent systems), site directed DNA mutagenesis.

Transformation and protein expression in *E. coli*.

Protein purification using Äkta purification systems (Explorer, FPLC, Basic and Prime), protein analysis using SDS-PAGE.

Structural Analysis: Small angle X-ray scattering (SAXS), Nuclear magnetic resonance (NMR) spectroscopy

Functional enzyme assays to measure protein stability, activity and specificity and calculation of kinetic constants.

Protein-protein interactions studies with Yeast Two Hybrid and Fluorescence Resonance Energy Transfer (FRET) method.

Epifluorescence and confocal microscopy techniques (eg. FRAP).

Mammalian cell culture (HeLa, MCF7, PC-3) and transient and stable transfections.

Bioinformatics (database searches, sequence alignments, construct design).

#### PUBLICATIONS:

1. Hans F, **Senarisoy M**, Bhaskar Naidu C, Timmins J (2020). Focus on DNA Glycosylases-A Set of Tightly Regulated Enzymes with a High Potential as Anticancer Drug Targets. *Int J Mol Sci.* 21(23):9226.
2. **Senarisoy M**, Barette C, Lacroix F, De Bonis S, Stelter M, Hans F, Kleman JP, Fauvarque M-O, Timmins J (2020). Förster Resonance Energy Transfer Based Biosensor for Targeting the hNTH1-YB1 Interface as a Potential Anticancer Drug Target. *ACS Chem Biol.* 15(4):990-1003.
3. Caliskan G, Baris IC, Ayaydin F, Dobson MJ, **Senarisoy M**, Boros IM, Topcu Z,

Zencir S (2017). Che1/AATF interacts with subunits of the histone acetyltransferase core module of SAGA complexes. *PLoS One*. 12, e0189193.

4. Istanbul H, **Senarisoy M**, Erciyas E and Topcu Z. (2014) Mannich base derivatives as the potential candidates of human topoisomerase II inhibitors, *Lett Drug Des Discov*. 12, 103-108.

5. **Senarisoy M**, Canturk P, Zencir S, Baran Y and Topcu Z. (2013) Gossypol interferes with both type I and type II topoisomerases without generating strand breaks, *Cell Biochem Biophys*. 66, 199-204.

#### SELECTED POSTER PRESENTATIONS:

1. **Senarisoy M**, Cuniassé P, Zinn-Justin S, Boulanger P. "Exploring the mechanisms of host takeover by bacteriophage T5: role of the DNA binding protein A2". Conference "Phages in Grenoble", Grenoble, France, October 8-9, 2019.

2. **Senarisoy M**, Lacroix F, Kleman JP, Topcu Z, Timmins J. "Study of the hTopol/YB1 complex in relation to anti-cancer drug resistance". EMBO workshop "DNA topoisomerases and DNA topology", Les Diablerets, Switzerland, September 17-21, 2017.

3. **Senarisoy M**, Stelter M, Godel J, Lacroix F, DeBonis S, Timmins J. "Study of the hNTH1/YB1 complex". 11ème rencontre Plasticité et Instabilité du Génome, Gif-sur-Yvette, France, November 24-25, 2015.

---

4. Canturk P, **Senarisoy M**, Nitiss JL, Topcu Z. "Effects of Gefitinib in the sensitivity of selected *Saccharomyces cerevisiae* strains". 36<sup>th</sup> FEBS, Federation of European Biochemical Societies Congress, "Biochemistry for Tomorrow's Medicine", Turin, Italy, June 25-30, 2011 *FEBS J.*, 278, 324-324.

#### ORAL PRESENTATIONS:

1. Conference "Phages in Roscoff", Roscoff, France, Oct. 2021. Title: Exploring the mechanisms of host takeover by bacteriophage T5: role of the DNA-binding protein A2.

2. MolMed Axis seminar, IBS, Grenoble, France, Oct. 2017. Title: Development of a FRET-based biosensor for identification of potential anti-cancer agents.

3. Life Science Switzerland Satellite Meeting to EMBO workshop TOPO2017, Les Diablerets, Switzerland, Sept. 2017. Title: Study of the hTopol/YB1 complex in relation to anti-cancer drug resistance.

4. PhD seminar, Faculty of Pharmacy, Ege University, Izmir, Turkey, Apr. 2015. Title: Roles of DNA topoisomerases in DNA repair.

#### MEMBERSHIP:

Société Française de Biophysique, 2018-continued.

Turkish Biochemical Society; representative of FEBS. 2011-continued.

#### REFERENCES:

Dr. Pascale BOULANGER, I2BC - Institute for Integrative Biology of the Cell  
Université Paris-Saclay, Bât 430, Faculté des Sciences, 91405, Orsay Cedex  
Tel: +33 (0)1 69 82 61 20. E-mail: [pascale.boulanger-biard@i2bc.paris-saclay.fr](mailto:pascale.boulanger-biard@i2bc.paris-saclay.fr)

Dr. Joanna TIMMINS, Institut de Biologie Structurale, 71 Avenue des Martyrs,  
38044, Grenoble Cedex 9, France.  
Tel: +33 (0)4 57 42 86 78. E-mail: [joanna.timmins@ibs.fr](mailto:joanna.timmins@ibs.fr)

Prof. Dr. Zeki TOPCU, Ege University, Faculty of Pharmacy, Department of  
Pharmaceutical Biotechnology, Izmir, 35100, Turkey.  
Tel: +90 232 311 19 31 E-mail: [zeki.topcu@ege.edu.tr](mailto:zeki.topcu@ege.edu.tr)