

SABIHA TOK

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EDUCATION

- Postdoctoral Research: Departments of Electrical Engineering and Bioengineering, UCLA, 2016-Present.
- Ph.D.: Department of Biophysics, Istanbul Medical Faculty, Istanbul University, 2009-2015.
- M.Sc.: Department of Biophysics, Istanbul Medical Faculty, Istanbul University, 2006-2009.
- B.Sc.: Department of Physics, Faculty of Arts and Science, Isik University, 2000-2005.

WORK EXPERIENCE

- Research and Teaching Assistant, Department of Biophysics, Istanbul Medical Faculty, Istanbul University, 2006-Present.
- Research and Teaching Assistant, Department of Physics, Faculty of Arts and Science, Isik University, 2005-2006.

PUBLICATIONS

Articles

- Handan Akçakaya, **Sabiha Tok**, Fulya Dal, Suzan-Adin Cinar, Rustem Nurten. *β -carotene treatment alters cellular death process at oxidative stress induced K562 cells.* Cell Biol Int, 41, 309-319, 2017.
- Handan Akcakaya, Fulya Dal, **Sabiha Tok**, Suzan-Adin Cinar and Rustem Nurten. *K562 cells display different vulnerability to H_2O_2 induced oxidative stress in differing cell cycle phases.* Cell Biol Int 9999, 1-9, 2015.

Conference Proceedings

- **Sabiha Tok**, Suzan Cinar, Rustem Nurten. *Determination of antioxidant effects of β -Carotene against oxidative effect of hydrogen peroxide in MCF-7 cells.* 25th National Biophysics Congress, Karadeniz Technical University Medical Faculty, Proceedings Abstract Book, P-47, Trabzon, September 24-27, 2013.
- Fulya Dal, Handan Akcakaya, **Sabiha Tok**, Suzan Adin Cinar, Rustem Nurten. *Effect of oxidative stress on cell cycle phases.* 25th National Biophysics Congress, Karadeniz Technical University Medical Faculty, Proceedings Abstract Book, P-36, Trabzon, September 24-27, 2013.
- Celal Guven, **Sabiha Tok**, Handan Akcakaya, Rustem Nurten. *The effect of streptozotocin and leptine treated NIH3T3 fibroblast and HUVEC cells on actine filament.* 24th National Biophysics Congress, Marmara University Medical Faculty, Programme and Proceedings Abstract Book, P-15, Istanbul, September 25-28, 2012.

- **Sabiha Tok**, Handan Akcakaya, Fulya Dal, Suzan Adin Cinar, Rustem Nurten. *The effect of antioxidants and oxidants interactions on different cell death processes in K562 cells*. 23th National Biophysics Congress, Trakya University Medical Faculty, Programme and Proceedings Abstract Book, s-15, Edirne, September 13-16, 2011.
- Fulya Dal, Handan Akcakaya, **Sabiha Tok**, Suzan Adin Cinar, Rustem Nurten. *The effect of mimosine and genistein to obtain in phase K562 cells*. 23th National Biophysics Congress, Trakya University Medical Faculty, Programme and Proceedings Abstract Book, s-48, P-28, Edirne, September 13-16, 2011.
- **Sabiha Tok**, Fulya Dal, Handan Akcakaya, Suzan Adin Cinar, Rustem Nurten. *Antioxidant effect of β -carotene in K562 cells*. 22nd National Biophysics Congress, Adnan Menderes University Medical Faculty Journal, s-53, P-58, Aydın, September 28-October 1, 2010.
- Handan Akçakaya, **Sabiha Tok**, Fulya Dal, Suzan Adin Cinar, Rustem Nurten. *Determination of oxidative effect of H_2O_2 in K562 cells*. 22nd National Biophysics Congress, Adnan Menderes University Medical Faculty Journal, s-30, P-15, Aydın, September 28-October 1, 2010.
- Handan Akçakaya, **Sabiha Tok**, Fulya Dal, Suzan Adin Cinar, Rustem Nurten. *The Effect of Diphtheria Toxin and Antioxidants on Neuromuscular Junction of Guinea Pig*. 15th National Biomedical Engineering Meeting (BIYOMUT), Akdeniz University, Antalya, April 21-24, 2010.
- **Sabiha Tok**, Aslı Zengin, Asiye Nurten, Rustem Nurten. *The effect of diphtheria toxin on different tissues of guinea pig and the role of antioxidants on this effect*. 2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress, Dicle University, Abstract Book, P.37, Diyarbakır (Turkey), October 5-9, 2009.

RESEARCH EXPERIENCE

- Portable plasmonic lab-on-a-chip biosensor. **Sabiha Tok**, Rustu Umut Tok. (Ministry of Science Industry and Technology, TGSD, 2015)
- Effect of antioxidant-oxidant interactions on oxidative stress and different cell death processes. **Sabiha Tok**, Rustem Nurten. (I.U.Project BAP-2010/20272).
- Investigation of oxidative stress in terms of mitochondrial parameters. Handan Akcakaya, Rustem Nurten, Muhammet Bektas, **Sabiha Tok**, Esra Erder, Seyhun Solakoğlu. (I.U.Project BAP-2009/3633).
- The effect of diphtheria toxin on different tissues of guinea pig and the role of antioxidants on this effect. **Sabiha Tok**, Rustem Nurten. (I.U.Project BAP 2008/2159).

TEACHING EXPERIENCE

- Biophysics Laboratory, Istanbul Medical Faculty, Istanbul University, 2015- 2006.
- Physics and Electronics Laboratory, Faculty of Arts and Sciences, Isik University, 2006-2005.

HONORS AND AWARDS

- Certificate of Achievement for Technological Entrepreneurship, Ministry of Science Industry and Technology, 2016.
- The Best Poster Award, 25th National Biophysics Congress, 2013.
- The Scientific and Technological Research Council of Turkey, Travel Award, Biophysics Congress, Aydın, 2010.
- The Scientific and Technological Research Council of Turkey, Travel Award, BIYOMUT, Antalya, 2010.
- International Congress of Molecular Medicine, Tuition Waiver, Istanbul, 2009.
- International Congress of Molecular Medicine, Tuition Waiver, Istanbul, 2007.
- Istanbul Kultur University, Tuition Waiver, Brain-Mind in Probabilistic Hyperspace Symposium, Istanbul, 2007.
- OSYM Achievement Grant, Isik University Tuition Waiver, Department of Physics, 2000-2005. (Achievement Scholarship for the Higher Education Entrance Examination, Higher Education Foundation of Turkey).

ADDITIONAL EDUCATION & CERTIFICATES

Courses

- Optics, Optic Systems and Design, Chamber of Physics Engineers, Istanbul, May 02-03 and 09-10, 2015.
- Oxidative Stress, DNA Damage, DNA Repair and Relation in Diseases', Istanbul Kultur University, Istanbul, April 16-18, 2013.
- Fundamental Basis in Research, Istanbul University, Istanbul, April 12, 2013.
- II. Cell Death Research Methods Theoretical Course, Osmangazi University, Eskisehir, November 1-2, 2012.
- I. Cell Death Research Methods Theoretical Course, Dokuz Eylul University, Izmir, November 24-25, 2011.
- Reproductive Medicine, III. International Congress of Molecular Medicine, Istanbul, May 5-8, 2009.
- School of Molecular Medicine, III. International Congress of Molecular Medicine, Istanbul, May 5-8, 2009.
- Stem Cells: From Analysis to Clinical Applications, III. International Congress of Molecular Medicine, Istanbul, May 5-8, 2009.
- Genetics and Statistics, Quality Control, III. International Congress of Molecular Medicine, Istanbul, May 5-8, 2009.
- Microscopy Techniques and Practice, Istanbul University, Istanbul, May 7, 2008.
- Laboratory Animal Sciences, DETAE, Istanbul University, Istanbul, April 28-May 9, 2008.

Congresses and symposiums attended

- 24th National Biophysics Congress, Marmara University Medical Faculty, İstanbul, September 25-28, 2012.
- Membrane Structure and Interactions Symposium, Acibadem University Medical Faculty, İstanbul, May 30, 2012.
- 3th DETAE Days, Institute of Experimental Medicine, İstanbul University, İstanbul, November 17-18, 2011.
- 23th National Biophysics Congress, Trakya University Medical Faculty, Edirne, September 13-16, 2011.
- 22nd National Biophysics Congress, Adnan Menderes University Medical Faculty, Aydın, September 28 - October 1, 2010.
- 15th National Biomedical Engineering Meeting (BIYOMUT), Akdeniz University, Antalya, April 21-24, 2010.
- 2nd International Biophysics Congress and Biotechnology at GAP & 21st National Biophysics Congress, Diyarbakır, October 5-9, 2009.
- III. International Congress of Molecular Medicine, İstanbul, May 5-8, 2009.
- 13th National Biomedical Engineering Meeting (BIYOMUT'08), ODTU, Ankara, May 29-31, 2008.
- Programmed Cell Death Symposium, İstanbul University Cerrahpasa Medical Faculty, İstanbul, April 9, 2008.
- III. International Congress of Molecular Medicine, Harbiye Military Museum, İstanbul, October 30, 2007.
- Brain-Mind in Probabilistic Hyperspace Symposium, Kultur University, İstanbul, October 19-21, 2007.
- 19th National Biophysics Congress, Selcuk University, Meram Medical Faculty, Konya, September 5-7, 2007.

SEMINARS GIVEN

(Department of Biophysics, İstanbul Medical Faculty, İstanbul University)

- Lens-free plasmonic lab-on-a-chip biosensors for protein determination, 2015.
- Oxidative damage of free radicals on cancer cell line and their effects on antioxidant, 2015.
- The effects of oxidants to different cell death processes, 2015.
- The effect of antioxidants on cancer cells, 2013.
- Cell death mechanisms, 2013.
- Cell death-induced oxidants and the protecting effect of antioxidant, 2013.
- The methods of identify of apoptosis with flow cytometry, 2012.
- Classification of cell death, 2011.

- Oxidant and antioxidant effect of β -carotene, 2011.
- The effect of oxidative stress in mitochondrial structure and permeability, 2010.
- Free radicals, antioxidants and human disease, 2010.
- Cell synchronization, 2010.
- Programmed cell death and antioxidants-2, 2009.
- Programmed cell death and antioxidants-1, 2009.
- Mass spectrometry, 2008.
- Recombinant DNA technology, 2008.
- Imaging methods, 2007.
- Functions of proteins, 2007.
- Ultrasound, 2007.

MEMBER ASSOCIATIONS

1. Turkish Biophysics Society.
2. Cell Death Research Society.