

Cansu Doğan
Curriculum Vitae



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Affiliation: University of Ankara

Current Professional Title: Graduate Research Assistant, Candidate of M.Sc.

Educational Background:

M.Sc. 2019-Present

Project: Physiological mechanisms of insect lipid metabolism and organelle communication

(Grade point average: 3.6 /4)

Department of Entomology,

University of Ankara, Ankara, TUR

Supervisor: Dr. Umut Toprak

B.Sc., 2014-2019

Project: Livers of Insects: The fat body, structure and functions

(Grade point average: 3.3 /4)

Department of Plant Protection

University of Ankara, Ankara, TUR

Supervisor: Dr. Umut Toprak

Relevant Employment:

Graduate Research Assistant; August-2019-Present Ankara University, Molecular Entomology Lab, Ankara, Turkey under guidance of Dr. Umut Toprak

Under Graduate Research Assitant; December 2017- July 2019 Ankara University, Molecular Entomology Lab, Ankara, Turkey under guidance of Dr. Umut Toprak

Visiting-Scholar Guest Researcher; August 2019 -June 2020 University of Wisconsin-Madison
Department of Entomology under guidance of Dr. Russel Groves
Visiting-Scholar Guest Researcher; February 2019- April 2019 Agriculture & Agri-Food
Canada, Saskatoon, Canada under guidance of Dr. Dwayne Hegedus
Visiting-Scholar Guest Researcher; June 2018-September 2018 Max Planck Institute for
Chemical Ecology in Jena, Germany under guidance of Dr. David Heckel

Awards and Honors:

The IGTRCN Peer-to-Peer Training award National Science Foundation	2019
1001 Student Scholarship <i>The Scientific and Technological Research Council of Turkey, Awarded, Researcher</i>	2019
The Erasmus Student Exchange Scholarship <i>European Union</i>	2018
Glocal Student Exchange Scholarship <i>Japanese Government (MEXT) Scholarship</i>	2017
The Erasmus Student Exchange Scholarship <i>European Union</i>	2016

Research Publications:

1. **Doğan, C.**, Hänniger, S., Heckel, D.H., Hegedus, D.D., Bayram Ş., Groves, R.L., Toprak, U., 2020. Two calcium-binding chaperones from the fat body of the Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae) involved in diapause. Arch Insect Biochem Physiol., e21755. <https://doi.org/10.1002/arch.21755>.
2. **Doğan, C.**, Hänniger, S., Heckel, D.H., Hegedus, D.D., Bayram Ş., Groves, R.L., Toprak, U., 2020. Characterization of Calcium Signaling Proteins From the Fat Body of the Colorado Potato Beetle, *Leptinotarsa decemlineata* (Coleoptera: Chrysomelidae): Implications for Diapause and Lipid Metabolism. submitted to journal of insect biochemistry and molecular biology.
3. Toprak U., Hegedus D., **Doğan C.**, Güney G., 2020. A journey into the world of insect lipid metabolism. Arch Insect Biochem Physiol., e21682. <https://doi.org/10.1002/arch.21682>.
4. **Doğan, C.**, Hänniger, S., Heckel, D.G., Hegedus, D.D., Bayram Ş., Groves, R.L., Toprak, U., 2020. Functional analysis of the Store-Operated Calcium Entry (SOCE) in lipid metabolism of *Leptinotarsa decemlineata*. In prep.

Teaching:

I have over two years of experience mentoring undergraduate students in the lab. I trained undergraduates intern to conduct biochemical and molecular work for on various molecular techniques.

Research Talks and Posters Presented:

1. Toprak, U., **Doğan, C.** 2020. “Do I have Diabetes?” An insulin-like peptide receptor and an insulin-like growth factor from the fat body of the Colorado potato beetle. Entomological Society of America Annual Meeting, Virtual, USA, November 11-25.
2. **Doğan, C.**, Toprak, U. 2020. Identification of mitochondrial carrier proteins from the fat body of Colorado potato beetle, *Leptinotarsa decemlineata* (Coleoptera:Chrysomelidae). Entomological Society of America Annual Meeting, Virtual, USA, November 11-25.
3. **Doğan, C.**, Groves, R.L., Toprak, U. 2020. A new model from Midwest to study human lipid metabolism disorders: The Colorado potato beetle. American Society for Biochemistry and Molecular Biology North Central Regional Meeting, Madison, WI, USA, March 7, 2020.
4. **Doğan, C.**, Güney, G., Bayram Ş., Toprak, U. 2019. A chicken or egg question in lipid research: Does calcium homeostasis affect lipid metabolism or lipid metabolism affect calcium homeostasis? Entomological Society of America Annual Meeting, St. Louis, USA, November 17-20.
5. **Doğan, C.**, Hänniger, S., Heckel, D.G., Hegedus, D.D., Bayram Ş., Toprak, U. 2019. Functional analysis of the Store-Operated Calcium Entry (SOCE) in lipid metabolism of *Leptinotarsa decemlineata*. Entomological Society of America Annual Meeting, St. Louis, USA, November 17-20.
6. **Doğan, C.**, Hänniger, S., Heckel, D.G., Hegedus, D.D., Bayram Ş., Toprak, U. 2019. Characterization of Seipin and Neuropeptide F genes in *Leptinotarsa decemlineata*. Entomological Society of America Annual Meeting, St. Louis, USA, November 17-20.
7. Toprak, U., Bayram, Ş., Güney, G., **Doğan, C.**, Sezen, K., Heckel, D. 2019. Cathepsins are downregulated in *Leptinotarsa decemlineata*(Coleoptera:Chrysomelidae) larvae during *Bacillus thuringiensis ssp. tenebrionis* infection. 7th Entomopathogens and Microbial Control Congress, Kayseri, Turkey, September 11-13.
8. **Doğan, C.**, Bayram, Ş., Toprak, U. 2019. Identification of antimicrobial peptides in wheat stink bug, *Aelia rostrata* (Hemiptera: Pentatomidae). Society for Invertebrate Pathology Annual Meeting, Valencia, Spain, July 28 - August 1. 6.
9. **Doğan, C.**, Hänniger, S., Heckel, D.H., Hegedus, D.D., Bayram Ş.,Kaydan,M.B., Toprak, U. 2019. Characterization of calcium-binding proteins in the fat body of Colorado potato beetle,

Leptinotarsa decemlineata. 1st International Molecular Plant Protection Congress, Adana, Turkey, April 10-13.

10. Toprak, U., Bayram, Ş., Güney, G., **Doğan, C.**, Babaroğlu, N., Ertürk, S., Kaydan, M.B., Baldwin, D., Coutu, C., Hegedus, D.D. 2019. Comparative fatbody transcriptomics and proteomics from feeding, aestivating and hibernating wheat stink bug, *Aelia rostrata* (Hemiptera: Pentatomidae) adults. 1st International Molecular Plant Protection Congress, Adana, Turkey, April 10-13.
11. Toprak, U., Bayram, Ş., Güney, G., **Doğan, C.**, Babaroğlu, N., Ertürk, S., Kaydan, M.B., Baldwin, D., Coutu, C., Hegedus, D.D. 2019. Comparative midgut proteomics from feeding and hibernating Sunnpest, *Eurygaster Maura* (Hemiptera: Scutelleridae). 1st International Molecular Plant Protection Congress, Adana, Turkey, April 10-13.
12. **Doğan, C.**, Bayram, Ş., Kaydan, M.B., Toprak, U. 2019. Identification of fatty acid binding and transport proteins in *Spodoptera littoralis*. (Boisduval)(Lepidoptera:Noctuidae): Potential target sites in pest control. 1st International Molecular Plant Protection Congress, Adana, Turkey, April 10-13.
13. Köse, E., **Doğan, C.**, Güler, A., Güney, G., Toprak, U. 2017. Entomopathogenic viruses as biological control agents in Turkey. 6th Entomopathogens and Microbial Control Congress, Tokat, Turkey, September 14-16.

Internships:

- August-September 2017 Undergraduate internship program in The Niigata and Fukushima, Japan Funded by Jasso scholarship
- August 2016-March 2017 Studied at University of Bonn, Bonn Germany funded by Erasmus scholarship

Skills and techniques

- Quantitative PCR, RNA interference, confocal and apotome microscopy, isolation of subcellular fractions, calcium measurements.

Service:

- **Organization Committee Member:** 1st International Molecular Plant Protection Congress Adana Turkey - April 10-13
- **Participated** in the workshop on Learning Intercultural Competence, conducted from December 9 through December 11, 2016 in Windeck-Rosbach by the center for development research (ZEF), University of Bonn, Germany was funded by DAAD.
- **Participated** at the AGEF Winter School The nexus of water, energy, soil and food 1517 February 2017 in Bonn was supported by the German Association of Postgraduate Programs with special Relevance to Developing Countries (AGEF).

- **The University of Bonn awards** extra-curricular activities in international and intercultural exchange, March 2017.
- **Participated** at United Nation Global Festival of Action for Sustainable Development World congress in Bonn March 2017.

Community:

- Entomological Society of America
- Insect Genetic Technology Research Coordination Network
- United Nation Youth Volunteer

References:

- **Umut Toprak, Associate Professor**
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- **Dr. Dwayne Hegedus, Research Scientist, Agriculture and Agri-Food Canada, Canada. & Adjunct Professor**, Dept. of Food and Bio-Product Sciences, University of Saskatchewan, Canada. Address: Agriculture and AgriFood Canada 107 Science Place Saskatoon, Canada.
Telephone: 306385-9427 E-mail: Dwayne.Hegedus@canada.ca
- **Dr. David Heckel, Professor, Max Planck Institute for Chemical Ecology, Germany & Director**, Dept. of Entomology, Max Planck Institute for Chemical Ecology, Germany.
Address: Max Planck Institute for Chemical Ecology, Dept. of Entomology, Hans-Knöll-Straße 8 D-07745 Jena, Germany.
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- **Dr. Russel Groves, Professor and Extension Specialist**, University Wisconsin-Madison Dept. of Entomology, United State of America
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