


CURRICULUM VITAE

PERSONAL INFORMATION	
Name	Burcu GÜNDÜZ ERGÜN
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Date of Birth	November 8, 1987



EDUCATION	
Ph.D.	
Institution	Middle East Technical University (METU) - Department of Biotechnology
Year of Graduation - GPA	2018 - GPA: 4.00/4.00
M.Sc.	
Institution	The University of Edinburgh - Department of Biotechnology
Year of Graduation	2014
M.Sc.	
Institution	METU - Department of Biotechnology
Year of Graduation	2012 - GPA: 3.97/4.00
B.Sc.(Major)	
Institution	Hacettepe University - Department of Food Engineering
Year of Graduation - GPA	2010 GPA: 3.52/4.00 (ranked 4th in the graduating class)
B.Sc.(Minor)	
Institution	Hacettepe University - Department of Chemical Engineering
Year of Graduation - GPA	2010 - GPA: 3.50/4.00

PROFESSIONAL EXPERIENCE		
15.06.2021-...	Postdoctoral researcher	Bilkent University, National Nanotechnology Research Center (UNAM)
30.12.2014- ...	Engineer	Republic of Turkey Ministry of Agriculture and Forestry – Biotechnology Research Center, Ankara
07.2019-12.2020	Maternity leave for twins	
01.2019-07.2019	Postdoctoral researcher	METU-Department of Chemical Engineering
15.10.2017-15.07.2018	Visiting Scientist	University of Natural Resources and Life Sciences (BOKU), Institute of Biotechnology, Vienna, Austria

AWARDS, DISTINCTIONS AND FELLOWSHIPS

- The Scientific and Technological Research Council of Turkey (TUBITAK) International Research Fellowship for PhD Students, 2017-2018.
- TUBITAK National PhD Scholarship, 2014-2016
- Turkish Higher Education System Scholarship for MSc in the UK
- METU Graduate Courses Performance Award (PhD), 2012-2013
- TUBITAK National MSc Scholarship, 2010-2012
- METU Graduate Courses Performance Award (MSc), 2010-2011

FOREIGN LANGUAGE

Exams	YÖKDİL	TOEFL	IELTS
English	95	89	7.5

PATENTS and PUBLICATIONS

PATENTS

- Çalık P., **Ergün B.G.**, ‘‘Modified AOX1 Promoter Variants’’ Publication number: WO/2020/068018, EP2019868082. (Under evaluation)
- Çalık P., **Ergün B.G.**, ‘‘Design of Alcohol Dehydrogenase 2 (ADH2) Promoter Variants by Promoter Engineering’’ Publication number: WO/2020/068019, EP2019864347 (Under evaluation)

SCI, SSCI, SCIE JOURNAL ARTICLES

- Watkins CA, Bartley DJ, **Ergün BG**, Yıldızhan B, Ross-Watt T, Morrison AA, Rosales Sanmartín MJ, Strathdee F, Andrews L, Free A. Interactions between *Teladorsagia circumcincta* Infections and Microbial Composition of Sheep with or without Successful Monepantel Treatment—A Preliminary Study. *Ruminants*. 2021; 1(1):31-45. <https://doi.org/10.3390/ruminants1010003>
- **Ergün, B.G.**, Demir, İ., Özdamar, T.H., Gasser, B., Mattanovich, D. and Çalık, P., 2020. Engineered Deregulation of Expression in Yeast with Designed Hybrid-Promoter Architectures in Coordination with Discovered Master Regulator Transcription Factor. *Advanced Biosystems*, 4(4), p.1900172.

- **Ergün, B.G.**, Gasser, B., Mattanovich, D. and Çalık, P., 2019. Engineering of alcohol dehydrogenase 2 hybrid-promoter architectures in *Pichia pastoris* to enhance recombinant protein expression on ethanol. *Biotechnology and Bioengineering*, 116(10), pp.2674-2686.
- Öztürk S*, **Ergün B.G.***, Çalık P. 2017. Double promoter expression systems for recombinant protein production by industrial microorganisms. *Applied Microbiology and Biotechnology*. 101(20), pp.7459-7475
*Equal contribution.
- **Ergün B.G.**, Çalık P. 2016. Lignocellulose degrading extremozymes produced by *Pichia pastoris*: Current state and future perspectives. *Bioprocess and Biosystems Engineering*. 39(1),pp.1-36

INVITED BOOK CHAPTERS

- **Ergün B.G.**, Çalık P. 2021. Hybrid-architected promoter design to deregulate expression in yeast. *In: Methods in Enzymology*. Academic Press. volume 659 (5). <https://doi.org/10.1016/bs.mie.2021.05.014>.
- **Ergün B.G.**, Çalık P. 2021. Hybrid architected promoter design to engineer expression in yeast. *In: Methods in Enzymology*. Academic Press. volume: 659 (4).
- **Ergün B. G.**, Hüccetogullari D., Öztürk S., Çelik E., Çalık P., 2019. Established and upcoming yeast expression systems. *In: Recombinant Protein Production in Yeast*. Ed: Gasser B, Mattanovich D, Humana Press Inc., ISBN: 978-1-4939-9023-8.

CONFERENCE PRESENTATIONS

- Ölmez F., Akan K., Maraş Vanlıoğlu F., Uslu T., **Ergün B. G.**, 2017. Yr15 Screening of Turkish Bread Wheat Varieties Using KASP Markers for Warrior, A New Race of Stripe Rust Pathogen (*Puccinia striiformis*) on Wheat in Turkey. Plant Health: Challenges Solutions, (Publication No:6169901) (Poster)
- **Ergün B.G.**, 16-21 April 2016. Potential applications of transglutaminase enzyme in cereal products. 15th International Cereal and Bread Congress, İstanbul, (Poster)
- **Ergün B.G.**, Çalık P., 3-6 April 2016. Extracellular microbial pro-transglutaminase production by recombinant *Pichia pastoris*. Pichia 2016 Conference, Antalya, Turkey, Abstract Book, P 63 (Poster)

- **Gündüz B**, Çalık P., 23-26 September 2012. "Recombinant transglutaminase production by metabolically engineered *Pichia pastoris*", 15th European Biotechnology Congress, İstanbul, Turkey, Abstract Book, P S80 (Poster)
- **Gündüz B**, Çalık P., 15-19 February 2012. Transglutaminase Production Using Modified *Pichia pastoris* with Metabolic Engineering, International Food, Agriculture and Gastronomy Congress, Antalya, Turkey, Abstract Book, P 245-246 (Oral presentation)

INVITED TALKS AND SEMINARS

- "Controlling transcription in non-conventional yeast *Komagataella phaffii*: Promoter engineering to enhance/deregulate expression", Gebze Technical University, Department of Bioengineering, 21 May 2021. (**Invited webinar**)
link: <https://www.gtu.edu.tr/icerik/3707/12261/display.aspx>

DISSERTATIONS

Doctorate, Transcriptional engineering of *Pichia pastoris* alcohol dehydrogenase 2 and alcohol oxidase 1 promoters for recombinant protein production, METU, Graduate School of Natural and Applied Sciences, Department of Biotechnology, 2018

Advisor: Prof Dr Pınar Çalık, Co-advisor: Prof Dr Diethard Mattanovich

Master of Science, Species composition changes in the ovine intestinal microbiome resulting from invasive microbial infection and treatment, The University of Edinburgh, School of Biological Sciences, Department of Biotechnology, 2014

Advisor: Dr Andrew Free, Co-advisor: Dr Craig Watkins

Master of Science, Recombinant transglutaminase production by metabolically engineered *Pichia pastoris* cells, METU, Graduate School of Natural and Applied Sciences, Department of Biotechnology, 2012

Advisor: Prof Dr Pınar Çalık, Co-advisor: Doç Dr Remziye Yılmaz

EDITORIAL BOARD APPOINTMENTS FOR SCIENTIFIC JOURNALS

2020-

Biotech Studies, Manager Editor

SCIENTIFIC ACTIVITIES

2020- Yeast4Bio (Non-Conventional Yeasts for the Production of Bioproducts)
COST Action N° CA18229 / Working Group 3&4 / Participant

RESEARCH INTERESTS

Industrial biotechnology, recombinant protein production, *Pichia pastoris*, strain design, de-novo genetic circuit design, synthetic biology, promoter engineering, transcriptional engineering, synthetic control of gene expression, CRISPR/Cas9, bioprocess design and optimization, pharmaceutical proteins, industrial enzymes

PROJECTS

Name	Role	Funding Body	Timeline	
			Star date	End date
1 Gıda Endüstrisinde Yüksek Potansiyele Sahip Transglutaminaz Enzimi Üretimi İçin <i>Pichia pastoris</i> Mayası ile Biyoproses Geliştirilmesi	Executive	TAGEM	01.01.2018	31.12.2022
2 Ege Bölgesi <i>Rhizobium</i> Bakteri Suşlarının Toplanması, Değerlendirilmesi ve Seleksiyonu	Researcher	TAGEM	01.01.2018	31.12.2021
3 TRANSCRIPTPROM - Integrative and comparative analyses of response of <i>Pichia pastoris</i>	Researcher	EU-IBISBA	2018	2019
4 <i>Pichia pastoris</i> Alkol Dehidrojenaz-1 Promotorunun Geliştirilmesi ve Tasarlanmış Promotor ile	Ph.D. Student	TUBITAK 1001	01.01.2017	31.12.2019

	Terapötik Protein Üretiminin Artırılması				
5	<i>Pichia pastoris</i> Alkol Dehidrojenaz 1 Promotoru ile Rekombinant Protein Üretimi	Ph.D. student	METU - BAP	01.01.2017	31.12.2019
6	Metabolik Mühendislik Yöntemleriyle Geliştirilmiş <i>Pichia pastoris</i> ile Rekombinant Transglutaminaz Üretimi	M.Sc. student	METU BAP	09.2010	09.2012
7	Gıda Katkı Maddelerinin Dinamik Davranışının Modellenmesi: Et Ürünlerindeki Nitrit Difüzyon Katsayısının Optimizasyonu	Executive	TUBITAK 2209-A	09.2009	06.2010