İbrahim Çağrı Kurt, MSc, PhD

● ibrahim.kurt@bogazici.edu.tr ● linkedin.com/in/cagrikurt/

Work

(May 2024-Now) **CureCraft (London, UK)**
Co-founder & CSO

(Dec. 2022-Now) **Boğaziçi University (Istanbul, Turkiye)**
Assistant Professor at the Department of Molecular Biology & Genetics

(Jan. 2022 – Oct. 2022) **ELM Genomics Biotechnology (Istanbul, Turkiye)**
Co-founder & CEO

Education

(2015 – 2022) **Harvard University,** MA, USA
Ph. D. in Biological Sciences, Harvard Graduate School of Arts and Sciences (3.87/4.00)

(2013 – 2015) **Koç University,** Istanbul, Turkey
M. Sc. in Molecular Biology and Genetics, Graduate School of Sciences & Engineering
Research Assistant and Teaching Assistant (4.00/4.00)

(2011 – 2012) **University of California Santa Cruz**, CA, USA
Educational Abroad Program (Exchange) (3.47/4.00)

(2009 – 2013) **Bilkent University**, Ankara, Turkey
B. Sc. Molecular Biology and Genetics (3.35/4.00, Honor)

Research Interests

CRISPR, genome editing, protein engineering, protein language models (PLM)

Research Experience

(Jan. 2016– Mar. 2022) Harvard University, School of Medicine
Molecular Pathology Unit, Massachusetts General Hospital
Ph.D. Student in Dr. Keith Joung's Genome and Epigenome Editing Laboratory
http://www.jounglab.org/
- Engineering novel CRISPR-based base editor technologies
- Developing more sensitive off-target assays for CRISPR-based genome editing platforms

(Sep. 2013 – Jun. 2015) Koç University, School of Medicine
Research Assistant in Dr. Tugba Bagci-Onder's Brain Cancer Research & Therapy Laboratory
http://bagcionderlab.ku.edu.tr
- Interrogating the function of chromatin modifying enzymes in TRAIL response of glioblastoma multiforme cells

(Sep. 2014) University of Virginia, School of Medicine, Department of Biochemistry and Molecular Genetics
Visiting Researcher in Dr. Mazhar Adli's Chromatin Biology & Epigenomics Laboratory
- Conducting ChIP experiments on KDM2B

(Jan. 2012-Sep. 2012) University of California Santa Cruz, Department of Molecular, Cell and Developmental Biology
Undergraduate Researcher in Dr. David Feldheim's Mammalian Brain Development Laboratory
- Characterization of the role(s) of Brn3a in maintenance of health and function of adult retinal ganglion cells

(Jun. 2011 – Aug. 2011) Albert Einstein College of Medicine of Yeshiva University, Department of Genetics
Researcher in Dr. Ertugrul Ozbudak's Systems Biology of Stem Cells and Embryonic Development Laboratory
- Characterization of the functional domain and protein interactors of Cited3

Teaching Experience

(2022 - Present) Bogazici University
BIO102: Cellular and Molecular Biology II, **BIO106**: Cell Biology Laboratory, **BIO121**: Introduction to Cell Biology, **BIO152**: Introduction to Modern Biology, **BIO353**: Molecular Genetics, **BIO407**: CRISPR Seminar

(Fall 2013) Koç University, School of Medicine
Teaching Assistant of Cellular and Molecular Biology Lab (**MBGE 110**)

(Summer 2012) University of California Santa Cruz, Department of Molecular, Cell and Developmental Biology
Teaching Assistant of the Cell Biology (**BIOL 110**)

Patents

JK Joung, **IC KURT**, Z Ronghao, J GRUNEWALD. "C-to-G Transversion Dna Base Editors". WO2021042047A1. PCT/US2020/048777. (https://patents.google.com/patent/WO2021042047A1/en)

Publications

Sak R, Caglar ES, Akbas F, **Kurt IC** & Sagiroglu AA (2026) Formulation-dependent serum effects on functional mRNA delivery: a head-to-head comparison of lipid and polymer-lipid hybrid nanoparticles. Journal of Drug Delivery Science and Technology, https://doi.org/10.1016/j.jddst.2026.108490

Kurt IC, Guner H, Erdem ZA, Can O, Gumustop I, Sirin A, Erol I, Kotil ES & Ortakci F (2026) Genomic evidence of ecological flexibility and cross-niche CRISPR spacerome targeting phage–plasmid hybrids in Latilactobacillus curvatus. BMC Genomics, https://doi.org/10.1186/s12864-026-13098-8

Kasapoglu MZ, Acar I, Gumustop I, Erol I, **Kurt IC** & Ortakci F (2026) Pangenomics of Limosilactobacillus fermentum reveals genomic diversity and bacteriocin activity against Staphylococcus aureus and Escherichia coli. Scientific Reports, https://doi.org/10.1038/s41598-026-51219-1

Gumustop I, Genel I, **Kurt IC** & Ortakci F (2025) Comparative Genomics of Lentilactobacillus buchneri Reveals Strain Level Hyperdiversity and Broad-spectrum CRISPR Immunity Against Human and Livestock Gut Phages. PLOS ONE, https://doi.org/10.1371/journal.pone.0325832

Can O, Gumustop I, Genel I, Unver H, Dertli E, **Kurt IC**, & Ortakci F (2025). Comparative Genomics of Bifidobacterium animalis subsp. lactis Reveals Strain-Level Hyperdiversity, Carbohydrate Metabolism Adaptations, and CRISPR-Mediated Phage Immunity. Fermentation, 11(4), 179. https://doi.org/10.3390/fermentation11040179

Karl P, Zhang W, Ma J, Schmidts A, Lee H, Horng JE, Kim DY, **Kurt IC**, Clement K, Hsu JY, Pinello L, Maus MV, Joung JK, Yeh JR. "CRISPR prime editing with ribonucleoprotein complexes in zebrafish and primary human cells". Nature Biotechnology, 2022 Apr 29, doi: 10.1038/s41587-021-00901-y

Kurt IC, Zhou R, Iyer S, Garcia SP, Miller BR, Langner LM, Grünewald J, Joung JK. "CRISPR C-to-G Base Editors for Inducing Targeted DNA Transversions in Human Cells". Nature Biotechnology, 2021 Jul 20, doi: 10.1038/s41587-020-0609-x

Kurt IC, Sur I, Kaya E, Cingoz A, Kazancioglu S, Kahya Z, Toparlak OD, Senbabaoglu F, Kaya Z, Ozyerli E, Karahuseyinoglu S, Lack NA, Gumus ZH, Onder T, and Bagci-Onder T. "KDM2B/JHDM1B, an H3K36-specific demethylase, regulates apoptotic response of GBM cells to TRAIL". Cell Death and Disease, 2017 Jun 29;8(6):e2897. doi: 10.1038/cddis.2017.288

Conferences

Oral Presenter: Kurt IC. Slush 2022 Biotech Showcase: ELM Genomics (https://youtu.be/Q_amWySBBr4?si=ykSXOcqvjAlnxj72)

Oral Presenter: Kurt IC. "CRISPR base editors for installing targeted DNA transversions in human cells". Washington University School of Medicine in St. Louis (STL Genome Editing 2021 Virtual Conference), 2021. (https://youtu.be/mLTRmociaGo?t=3645)

Oral Presenter: Kurt IC. "Programmable C-to-G Transversions in Human Cells with Engineered CRISPR Base Editors". American Society of Gene & Cell Therapy (ASGCT) Annual Meeting, Boston, USA, 2020.

Poster Presenter: Kurt IC. Authors: Kurt IC, Kahya Z, Cingoz A, Kaya Z, Lack N, Gumus ZH, Onder T, Bagci-Onder T. "KDM2B, an H3K36-specific demethylase, regulates apoptotic response of GBM cells to TRAIL". International Cell Death Society (ICDS) Meeting, Prague, Czech Republic, Poster presentation, 2015.

Poster Presenter: Kurt IC. Authors: Kurt IC, Kahya Z, Toparlak D, Lack N, Onder T, Bagci-Onder T. Interrogating the function of chromatin modifying enzymes in TRAIL response of GBMs*. International Cell Death Society (ICDS) "Cell Death and Diseases" Meeting, Cape Town, South Africa*, Poster presentation, 2014.

Editorship and Peer Review

Peer Review Activity for Nature Communications Biology (2025)

Honors, Scholarships, Awards and Memberships:

(15 Nov 2022)	Slush 2022, Newborn DNA Screening Product Showcase, Helsinki (https://youtu.be/Q_amWySBBr4)
(12 May 2020)	ASGCT Excellence in Research Award Recipient (https://annualmeeting.asgct.org/am20/abstracts/award-recipients)
(2020-2022)	Associate Member of American Society of Gene & Cell Therapy (ASGCT)
(10 May 2014)	1st place in poster prize, "Interrogating the function of chromatin modifying enzymes in TRAIL response of GBMs". International Cell Death Society, "Cell Death and Diseases" meeting, Cape Town, South Africa
(Jan. 2014 - 2016)	Member of the European Association for Cancer Research (EACR)
(Jan. 2014 - 2016)	Member of the International Cell Death Society (ICDS)