



**Prof. Dr. Hasan
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Professor of
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Faculty web sites:

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AFFILIATIONS

- Koç University School of Medicine, Department of Pulmonary Medicine
- Principal Investigator, Chronic Lung Diseases Research Laboratory (KU-CLD)
- KUTTAM, Research Center for Translational Medicine

RESEARCH AREAS

- Adverse health effect of air pollutants, particularly diesel exhaust particles,
- Health effects of climate change including desertification, nanotoxicology, and allergen-particle interaction.
- Mechanisms underlying pathogenesis of chronic obstructive pulmonary diseases (COPD) including role of progenitor/stem cells, circadian rhythm, ciliary activity of airway epithelial cells in COPD and primary ciliary dyskinesia and bronchiectasis.
- Effects of SARS-COV-2 on airway epithelial cells, and pollutant-SARS-CoV-2 interaction.

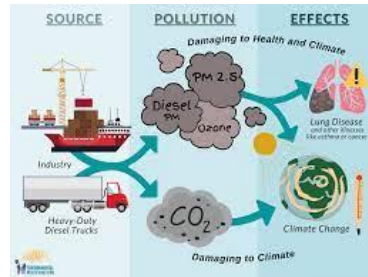
HIGHLIGHTS

- Projects supported by TÜBİTAK
- 100+ refereed publications at Q1 journals



RESEARCH AREAS

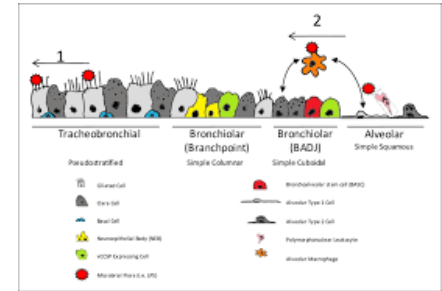
Climate change and air pollution



COPD

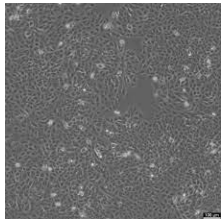


Airway epithelium

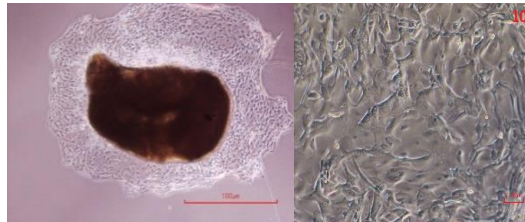


OUR MODELS

in vitro

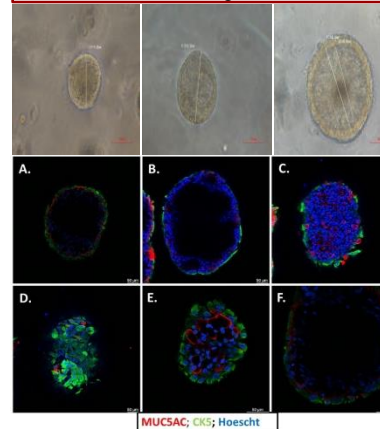


Cell lines



Primary human bronchial epithelial cells from the bronchial explants with non-smokers, smokers, and COPD patients

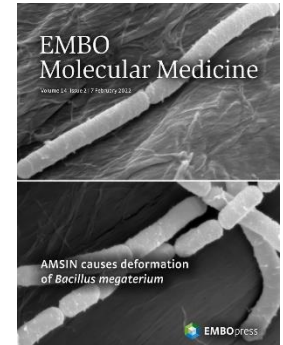
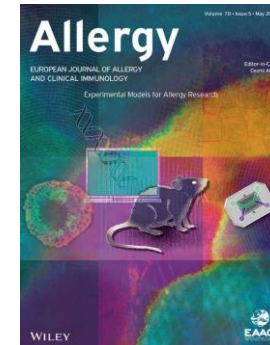
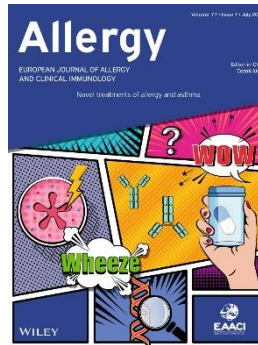
3D Cell System



Wet lab and omic approaches

- Cell viability
- Epithelial barrier function analysis (TEER and FITC-Dextran)
- Real Time PCR
- Immunoblotting
- Immunofluorescence
- Transmission electron microscopy
- Transcriptomic analysis
- Proteomic analysis
- Bead based cytometric assays
- Flow cytometry
- Pyrosequencing

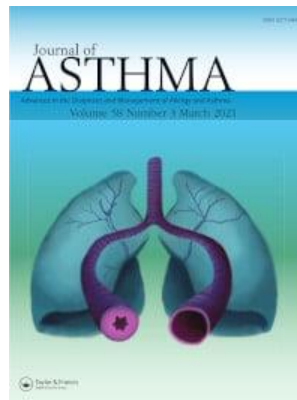
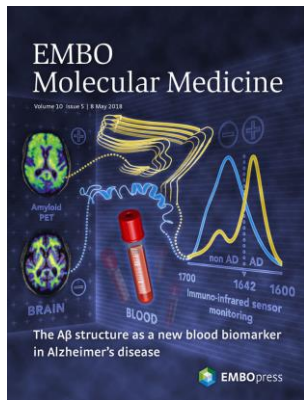
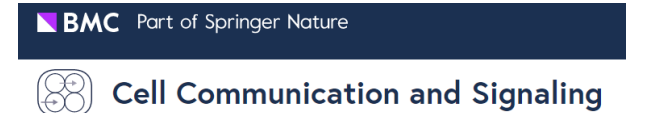
Publications



THE LANCET

nature communications

frontiers



Chronic Lung Diseases Research Laboratory (KU-CLD)

PostDoc Candidates

Postdoctoral candidates can e-mail a letter of interest and CV to Dr. Hasan Bayram (habayram@ku.edu.tr)

We are hiring a postdoc. We are seeking for applicants with expertise in cell culture, primary cell culture, Immunoblotting, Confocal Microscopy, Flow cytometry, qRT-PCR, gene transfection, gene silencing techniques and/or RNAseq and bioinformatic data analysis