



Federation of European Toxicologists & European Societies of Toxicology

# The 2<sup>nd</sup> Course on Molecular Toxicology

22-24 Mayıs 2024

Ege Üniversitesi - İzmir, Türkiye

EUROTOX - Molecular Toxicology Specialty Section (<http://www.eurotox.com/molecular-toxicology/>) is organizing *The 2<sup>nd</sup> Course on Molecular Toxicology* in collaboration with Ege University Faculty of Pharmacy and the Turkish Society of Toxicology between May 22 and May 24, 2024.

## Why should you attend this course?

Molecular toxicology is the discipline that particularly emerged in recent years due to the paradigm shift currently underway in the field of toxicology. This shift involves transitioning from classical toxicology, focusing on apical endpoints of toxicity in animal models, to more predictive in vitro toxicology, relying on information on toxicity mechanisms.

Driven by these recent developments, the Molecular Toxicology Specialty Section within EUROTOX aimed to establish a comprehensive modular education and training in this field. In this 2<sup>nd</sup> course, a series of state-of-the-art lectures related to 4 themes will be provided, namely, General principles, Receptor-mediated toxic outcomes, Targets and cellular responses, and Approaches to toxicity prediction. Each lecture within these themes will elaborate on both the basics and progress regarding specific topics pertinent to the molecular toxicology area. This 2.5 days' course will be assessed by a multiple-choice exam.

This course is the 2<sup>nd</sup> of its kind and has been recognised as an ERT Course on the core topic [B4: Molecular and Cellular Toxicology](#).

## Who should attend this course?

This course is intended for (post)doctoral students and early-stage scientists from industry, academia or regulatory agencies who recently became active in the field of toxicology. Applicants should ideally have a background in toxicology, pharmaceutical sciences, biology, chemistry, (bio)medical sciences, veterinary sciences or equivalent.

## How can I register?

To register, please complete the registration form (3<sup>rd</sup> page) and email it to [ecz.kemal.atmaca@gmail.com](mailto:ecz.kemal.atmaca@gmail.com) along with the bank receipt of the registration fee and any additional payments of your choice (Group Dinner and/or Daily Tour to Ephesus). Registration will be completed after the email confirmation from the Organizing Committee. **The number of attendees will be limited to 40.**

Prof. Dr. Angela Mally, Ph.D., E.R.T.  
Chair of the Molecular Toxicology Specialty Section

Prof. Dr. Hilmi Orhan, Ph.D., E.R.T.  
Chair of the Local Organizing Committee



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## DAY 1. May 22<sup>nd</sup>, Wednesday

08:30-09:00	Opening and Introduction .....	Hilmi Orhan
09:00-12:30	<b>RECEPTOR-MEDIATED TOXIC OUTCOMES</b>	
09:00-09:45	Xenoreceptors: PARP, CAR, PXR, KEAP and Nrf-2 .....	Hartmut Jaeschke
09:45-10:30	Modes of Cell Death .....	Hartmut Jaeschke
10:30-11:00	Coffee break	
11:00-11:45	AhR Receptors .....	Jan Vondracek
11:45-12:30	Hormone Receptor-Mediated Toxic Outcomes .....	Bayram Yilmaz
12:30-13:30	LUNCH	
13:30-17:30	<b>APPROACHES TO TOXICITY PREDICTION</b>	
13:30-14:45	Adverse Outcome Pathways .....	Mathieu Vinken
14:45-15:30	Liver-based <i>In Vitro</i> Models: Tools for Molecular Toxicology Research .....	Mathieu Vinken
15:30-16:00	Coffee break	
16:00-16:45	New Approach Methodologies (NAM)-based Testing .....	Thomas Hartung
16:45-17:30	Novel Computational Approaches to Predict Drug Metabolism and Toxicity .....	Atilla Akdemir
17:30-18:15	Zebrafish as an <i>In Vitro</i> Toxicity Testing Model .....	Gülçin Çakan Doğan

## DAY 2. May 23<sup>rd</sup>, Thursday

09:00-11:45	<b>GENERAL PRINCIPLES</b>	
09:00-09:45	Structure-Activity and Dose-Response Relationships .....	Edward Calabrese
09:45-10:30	The Continuing Role of Biotransformation in Toxicology .....	Peter Guengerich
10:30-11:00	Coffee break	
11:00-11:45	Chemical and Biological Properties of Reactive Intermediates .....	Peter Guengerich
11:45-12:30	Membrane Lipid Structure and Cell Signalling.....	Suna Sabuncuoğlu
12:30-13:30	LUNCH	
13:30-17:00	<b>TARGETS AND CELLULAR RESPONSES-1</b>	
13:30-14:15	Carcinogenesis and Risk Assessment .....	Edward Calabrese
14:15-15:00	Physiological and Toxicological Functions of MicroRNAs .....	Timothy Gant
15:00-15:30	Coffee break	
15:30-16:15	Risk Factors Involved Interindividual Susceptibility and Genetic Polymorphism .....	Sinan Sützen
16:15-17:00	Cellular Responses to DNA Damage and Genotoxicity Testing .....	Marcus Cooke

## DAY 3. May 24<sup>th</sup>, Friday

09:00-12:30	<b>TARGETS AND CELLULAR RESPONSES-2</b>	
09:00-09:45	Mitochondrial Dysfunction Induced by Chemicals .....	Hilmi Orhan
09:45-10:30	ER Stress and Consequences .....	Jan Vondracek
10:30-11:00	Coffee break	
11:00-11:45	Ion Channels and Ion Imbalances in Adverse Outcomes.....	Metiner Tosun
11:45-12:30	Protein Modification and Cellular Responses .....	Angela Mally
12:30-14:00	LUNCH	
14:00-16:30	Multiple choice exam	
20:00-	Group Dinner	

## May 25<sup>th</sup>, Saturday

09:00-16:00	Excursion	
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	Kayıt Ücreti*
Akademi veya Kamu	75 EUR
Endüstri	250 EUR

\* Kayıt ücretine tüm derslere katılım, dijital ve basılı kurs materyalleri, öğle yemekleri ve kahve molaları dahildir.

## İsteğe bağlı ek ücretler:

- Grup Yemeği (24 Mayıs 2024) 30 EUR
- Efes Günlük Tur (25 Mayıs 2024) 75 EUR (tur + öğle yemeği)

## KONAKLAMA

**Üniversite Konukevi:** Etkinliğin yapılacağı Eczacılık Fakültesine 10 dakikalık yürüme mesafesindedir.

Günlük ücret tek kişilik oda için kişi başı 35,5 Avro'dur (kahvaltı dahil). **Rezervasyon** +90 232 311 21 33 numaralı telefondan doğrudan veya [ecz.kemal.atmaca@gmail.com](mailto:ecz.kemal.atmaca@gmail.com) adresinden organizasyon aracılığıyla yapılabilir.

**Coordinat Suits**, Ege Üniversitesi'ne erişim için metro istasyonuna yürüme mesafesindedir (Sanayi durağından sonra 3 durak).

Günlük ücret tek kişilik oda için kişi başı 73 Avro'dur (kahvaltı dahil).

**Rezervasyon** doğrudan <https://coordinatsuits.com> adresinden veya organizasyon aracılığıyla [ecz.kemal.atmaca@gmail.com](mailto:ecz.kemal.atmaca@gmail.com) adresinden yapılabilir.

**Lütfen aşağıdaki formu doldurun** ve kayıt ücreti ve ek ödemeler (Grup Yemeği ve/veya Efes Antik Kenti Günlük Turu) için banka dekontu ile birlikte [ecz.kemal.atmaca@gmail.com](mailto:ecz.kemal.atmaca@gmail.com) adresine gönderin:

**Hesap Adı:** Kemal ATMACA

**IBAN:**TR28000320000000124117319

**SWIFT:**TEBUTRISXXX

Ad-Soyad: .....

Bağlı Kuruluş: .....

Kayıt Tipi:  Akademi  Endüstri

Geliş Tarihi: .....

Ayrılış Tarihi: .....

Oda Tercihi:  Tek  Çift

Grup Yemeği:  Evet  Hayır

Efes Günlük Tur:  Evet  Hayır

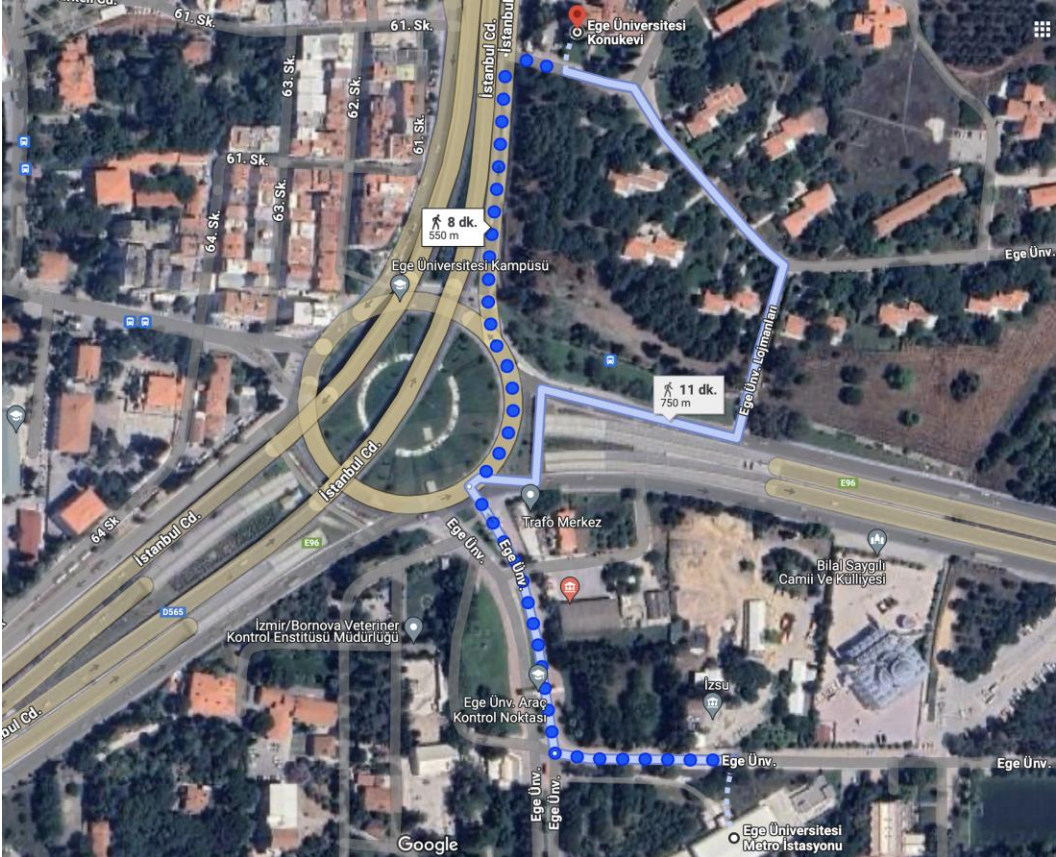
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## Havaalanından Konukevine nasıl ulaşabilirsiniz?

- 1) Ege Üniversitesi Konuk Evi/Bornova'ya ulaşmak için Adnan Menderes Havalimanı'nda İZBAN hattından Menemen yönüne giden trene binin.
- 2) 20-25 dakikalık bir yolculuktan sonra Hilal aktarma istasyonunda inin.
- 3) Bornova yönüne giden metroya binmek için «Evka-3» yazan yönde ilerleyin ve metroya binin.
- 4) Ege Üniversitesi istasyonunda inin.
- 5) Yaklaşık 5 dk'lık mesafedeki Ege Üniversitesi Konukevi'ne ulaşmak için haritada mavi noktalarla gösterilen yolu takip edin.



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## Havaalanından Coorinat Suits'e nasıl ulaşabilirsiniz?

- 1) Coorinat Suits'e ulaşmak için Adnan Menderes Havalimanı'nda İZBAN hattından Menemen yönüne giden trene binin (A).
- 2) 20-25 dakikalık bir yolculuktan sonra Hilal aktarma istasyonunda inin.
- 4) Coorinat Suits'e (3. Sanayi durağı) giden metroya binmek için "Evka-3" işaretli yönde ilerleyin ve metroya binin.
- 5) Sanayi istasyonunda inin.
- 6) 5 dakika yürüyerek Coorinat Suits oteline ulaşın (B).
- 7) Kurs yerine ulaşmak için Sanayi istasyonundan metroya binin ve Ege Üniversitesi'nde (3. istasyon) inin. İstasyondan sol çıkıştan çıkın, mavi noktaları takip ederek Eczacılık Fakültesine ulaşın (C).

