

**2nd INTERUNIVERSITY CERTIFICATE PROGRAM of PREDICTIVE  
and PERSONALIZED MEDICINE/HEALTHCARE in DAILY  
MODERN MEDICINE and PHARMACY**

**P4**

Predictive  
Preventive  
Personalized  
Participative

**MEETING**



**ANADOLU UNIVERSITY, FACULTY OF PHARMACY**

**13 -16 SEPTEMBER 2012**

**ESKİŞEHİR, TÜRKİYE**

Under the Aegis of:

**ESKİŞEHİR OSMANGAZİ UNIVERSITY, TÜRKİYE**

**ACIBADEM UNIVERSITY, TÜRKİYE**

**AMERICAN UNIVERSITY OF BEIRUT, LEBANON**

**C2H-VICHYGENOMICS/KAANMED, FRANCE, TÜRKİYE**

**CENTRE FOR ARAB GENOMIC STUDIES, UNITED ARAB EMIRATES**

**CENTRE JEAN PERRIN, FRANCE**

**FATİH UNIVERSITY, TÜRKİYE**

**McGILL UNIVERSITY, CANADA**

**UNIVERSITY OF AUVERGNE, FRANCE**

**UNIVERSITY OF MONTREAL, CANADA**





### WHAT MAKES THIS CERTIFICATE PROGRAM UNIQUE

Through the **2nd INTERUNIVERSITY CERTIFICATE PROGRAM of PREDICTIVE and PERSONALIZED MEDICINE/HEALTHCARE IN DAILY MODERN MEDICINE and PHARMACY**, we would like to underline the importance and application of individual approach to predictive, preventive, personalized and participative (**P4**) medicine/healthcare delivery into the mainstream of clinical practices such as oncology, psychiatry, cardiology, nutrition, infectious diseases, occupational health and genetic testing with a significant impact on “New Genetics” for improvement of healthcare. We sincerely hope that this certificate program will develop mutual awareness of personalized medicine/healthcare applications and will form a scientific platform for discussing the significance of genomics and pharmacogenomics in clinical practice for 4P medicine while taking into account the bioethical aspect and raising challenging questions in the context.



### WHY THIS CERTIFICATE PROGRAM IS ORGANIZED

The concept of P4 medicine/healthcare is a lifelong and individually tailored healthcare approach to the detection, prevention and treatment of diseases using disease-based knowledge on individuals' personalized peculiarities and their precise genetic profile. The philosophy behind personalized medicine is that every patient has a unique biology. P4 medicine/healthcare deals with individual diversities and the complexity of human body considering external factors such as environmental or lifestyle factors. By analyzing and examining each person according to his proper context, personalized medicine enables the change from “**disease-centered**” healthcare to “**human-centered**” healthcare and contributes to individual approach for routine medical and pharmaceutical practices.

Pharmacogenomics which studies genetic variations among individuals to predict disease susceptibility and responses to therapeutic agents can be regarded as the ‘21<sup>st</sup> Century's answer’ for rational use of drugs - **the right drug to the right patient at the right dose.**

Education of health professionals about genetics is essential in the post-genomic era for integration of P4 medicine into the mainstream of healthcare. The ultimate goal of this program, which is intended for clinicians, pharmacists, investigators, industry, physicians and medical students, nurses and other clinical research staff, is to have high level specialists encouraged to use P4 medicine in clinical practice by applying genetic science to human health as a regular and reliable method with ethical, clinical and psychological approach. **The strategy of Anadolu University “Lifelong Learning” will be realized through “Current and Future Need for Education in Personalized Medicine/Healthcare”.**

**Information gathered through this Program will help to make personalized medicine/healthcare reality available to everybody.**

## **TARGET AUDIENCE**

- 1 Physicians
- 2 Pharmacists
- 3 Dentists
- 4 Biologists
- 5 Nurses
- 6 Health institutions, healthcare administrators, healthcare IT professionals
- 7 Scientists and research staff
- 8 National leaders
- 9 Investigators
- 10 Public and private payers, biomedical industry
- 11 Graduate students (medical, pharmacy, science, etc)
- 12 Other healthcare professionals (nutritionists, dieticians, etc)
- 13 Pharmaceutical industry
- 14 Pharmacoeconomists, economists, health policy setters
- 15 Government policy makers and regulators
- 16 Patient advocates and media experts

## **SUBJECTS COVERED in the TRAINING PROGRAM**

- 1 Basics of molecular genetics
- 2 Polygenic and monogenic rare diseases
- 3 Drug metabolism
- 4 Drug-drug interactions
- 5 Pharmacogenetic testing for oncology, immunology, cardiology, asthma, algology and psychiatry; liability issues for physicians and patients
- 6 Drug safety and pharmacovigilance
- 7 Personalized prevention based on analysis of genetic specificities
- 8 Therapeutic drug monitoring (TDM) for individualized medication
- 9 Interpretation of pharmacogenetic testing results as personalized reports
- 10 Psychological aspects of predictive and personalized medicine
- 11 Pharmacoeconomics
- 12 Nutrigenetics and its practical applications
- 13 Oncogenetics
- 14 Epigenetics
- 15 Cardiovascular and asthma genetics
- 16 Immunogenetics and HLA
- 17 Role of genetics and environmental factors in the development and treatment of diseases
- 18 Oxidative stress
- 19 Antiaging
- 20 Evidence-based medicine
- 21 Molecular biology techniques and high-throughput technologies
- 22 Bioinformatics and biostatistics
- 23 Ethical aspects of genomics
- 24 Patient rights, application of medical privacy and confidentiality for genetics

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## SCIENTIFIC PROGRAM

### HONORARY GUEST

**Prof.Dr. Graham Taylor, PhD**

Head of Leeds Institute of Molecular Medicine (LIMM), Leeds, UK

#### 1<sup>st</sup> Day, 13.09.2012

- 08:30 – 09:30**                      **Registration**
- 09:30 – 09:50**                      **Welcome**  
Prof.Dr. Yasemin Yazan, *PhD*, Dean, Anadolu University, Faculty of Pharmacy, Eskişehir, Türkiye  
Turkish Ministry of Health, TBA, Ankara, Türkiye  
Prof.Dr. Davut Aydın, *PhD*, President, Anadolu University, Eskişehir, Türkiye
- 09:50 – 10:00**                      **Opening Remarks**  
Dr. Candan Hizel, *PhD*, Eskişehir, Türkiye; Vichy, France; Montreal, Canada
- 10:00 – 10:40**                      **Summit Overview**  
Prof.Dr. Kevser Erol, *PhD*, Eskişehir, Türkiye  
Assoc.Prof.Dr. Vural Özdemir, *MD, PhD*, Montreal, Canada
- 10:40 – 11:25**                      **Keynote**  
**Collective Innovation in Post-genomics Personalized Medicine: Human Variome Project and Beyond**  
Prof.Dr. Graham Taylor, *PhD*, Leeds, UK
- 11:25 – 11:40**                      **Coffee Break**
- 11:40 – 12:15**                      **Human Lymphoblastoid Cell Lines as Drug Response Biomarkers Discovery Tool**  
Prof.Dr. David Gurwitz, *PhD*, Tel-Aviv, Israel
- 12:15 – 12:50**                      **Moving Knowledge on Human Genome SNP Variation to the Clinic**  
Prof.Dr. Nazlı Başak, *PhD*, İstanbul, Türkiye
- 12:50 – 14:00**                      **LUNCH**
- 14:00 – 14:35**                      **Cancer Genomics and Personalized Medicine**  
Prof.Dr. Yves-Jean Bignon, *MD, PhD*, Clermont-Ferrand, France
- 14:35 – 15:10**                      **Genetic and Environmental Contributions to Human Disease Susceptibility: Lessons Learned in the Arab Populations**  
Dr. Ghazi Tadmouri, *PhD*, Dubai, UAE
- 15:10 – 15:30**                      **Coffee Break**
- 15:30 – 16:05**                      **Epigenetics and Personalized Medicine**  
Dr. Dominique Bernard-Gallon, *PhD*, Clermont-Ferrand, France
- 16:05 – 16:40**                      **Clinical Applications of Pharmacogenetics in Psychiatry**  
Prof.Dr. Marja-Liisa Dahl, *MD, PhD*, Stockholm, Sweden
- 16:40 – 17:15**                      **Drug Biotransformation**  
Prof.Dr. Ece Genç, *PhD*, İstanbul, Türkiye
- 19:30-21:30**                      **Cocktail Party**

**2<sup>nd</sup> Day, 14.09.2012**

- 09:00 – 09:35**      **Pharmacogenetics of Drug Metabolizing Enzymes: Lessons Learned in Türkiye**  
Prof.Dr. Ümit Yaşar, *MD, PhD*, Ankara, Türkiye
- 09:35 – 10:10**      **Pharmacogenetics and Drug-Drug Interactions: What Do Pharmacists and Physicians Need to Know**  
Prof.Dr. Jacques Turgeon, *PhD*, Montreal, Canada
- 10:10 – 10:45**      **Fourth Paradigm Data-Intensive Science for Personalized Medicine: Introduction and Invitation to DELSA**  
Dr. Eugene Kolker, *PhD*, Seattle, USA
- 10:45 – 11:05**      **Coffee Break**
- 11:05 – 11:40**      **Genomics Medicine Horizon Scanning: Postgenomics Global Personalized Medicine**  
Assoc.Prof.Dr. Vural Özdemir, *MD, PhD*, Montreal, Canada
- 11:40 – 12:15**      **Bioinformatics for Personalized Medicine I**  
Assist.Prof.Dr. Yeşim Aydın Son, *MD, PhD*, Ankara, Türkiye
- 12:15 – 12:50**      **Personalized Medicine for Metabolic Disorders: Focus on Diabetes**  
Prof.Dr. Pavel Hamet, *MD, PhD* and Dr. Johanne Trembley, *PhD*, Montreal, Canada
- 12:50 – 14:05**      **LUNCH**
- 14:05 – 14:40**      **Bioinformatics for Personalized Medicine II**  
Assist.Prof.Dr. Yeşim Aydın Son, *MD, PhD*, Ankara, Türkiye
- 14:40 – 15:15**      **Personalized Medicine and Pharmacogenomics in Primary Care**  
Assoc.Prof.Dr. Nathalie Khoueiry Zgheib, *MD, PhD*, Beirut, Lebanon
- 15:15 – 15:35**      **Coffee Break**
- 15:35 – 16:10**      **Convergence of Pharmacoepidemiology and Pharmacogenetics in Personalized Medicine**  
Assoc.Prof.Dr. Gillian Bartlett, *PhD*, Montreal, Canada
- 16:10 – 16:45**      **Continuum from Monogenic to Polygenic and Multi-factorial Disease**  
Prof.Dr. Hülya Kayserili, *MD*, İstanbul, Türkiye
- 16:45 – 17:20**      **Nanotechnology and Nanodiagnostics for Personalized Medicine**  
Dr. Gürer Budak, *MD, PhD, MBA*, Ankara, Türkiye
- 19:30 –**              **GALA DINNER**

**3<sup>rd</sup> Day, 15.08.2012**

- 09:00 – 09:35**      **SNPs for Assessing Response to Cancer Chemotherapy**  
Prof.Dr. Mehmet Gündüz, *MD, PhD*, Ankara, Türkiye
- 09:35 – 10:10**      **Direct-to-Consumer Personal Genomics Tests: Challenges and the Road Ahead**  
Prof.Dr. Denise Avard, *PhD*, Montreal, Canada
- 10:10 – 10:45**      **Clinical Applications of Cancer Pharmacogenetics: Lessons Learned in Türkiye**  
Prof.Dr. Ahmet Demirkazık, *MD, PhD*, Ankara, Türkiye
- 10:45 – 11:05**      **Coffee Break**
- 11:05 – 11:40**      **Nutrigenetics and Nutraceuticals**  
Prof.Dr. Helena Baranova, *MD, PhD*, Monaco
- 11:40 – 12:15**      **Pharmacogenetic Testing and Personalized Reports I: How We Can Interpret Test Results: Case Studies in Oncology, Psychiatry and Cardiology**  
Dr. Candan Hizel, *PhD*, Eskişehir, Türkiye; Vichy, France; Montreal, Canada
- 12:15 – 12:50**      **Dosage Individualization: Modernizing Conventional Therapeutic Drug Monitoring with Pharmacogenetic Testing in Personalized Medicine**  
Prof.Dr. Matthias Schwab, *MD, PhD*, Stuttgart, Germany
- 12:50 – 14:05**      **LUNCH**
- 14:05 – 14:40**      **Genomics and Infectious Diseases: Focus on HIV and HCV**  
Dr. Christine Jacomet, *MD*, Clermont-Ferrand, France
- 14:40 – 15:15**      **Cardiovascular Pharmacogenetics: Lessons Learned**  
Dr. Véronique Michaud, *PhD*, Montreal, Canada
- 15:15 – 15:35**      **Coffee Break**
- 15:35 – 16:10**      **Pharmacogenetic Testing and Personalized Reports II: How We Can Interpret Test Results- Case Studies in Diabetes, Gastroenterology and Analgesics**  
Dr. Candan Hizel, *PhD*, Eskişehir, Türkiye; Vichy, France; Montreal, Canada
- 16:10 – 16:45**      **Evidence-Based Medicine, Pharmacoeconomics and Building Capacity for Health Technology Assessment in Türkiye**  
Dr. Rabia Kahveci, *MD*, Ankara, Türkiye
- 16:45 – 17:20**      **Pharmacogenetic Applications in Neurology**  
Prof.Dr. Halil Atilla, *MD*, İstanbul, Türkiye and Prof.Dr. Demet Adapınar, *MD*, Eskişehir, Türkiye
- 17:30 –**              **Eskişehir by Night: Sightseeing and Dinner**



**4<sup>th</sup> Day, 16.08.2012**

- 09:00 – 09:35**      **State of Genetic Testing in Türkiye**  
Assoc.Prof.Dr. Cengiz Yalçiner, *MD, PhD*, İstanbul, Türkiye
- 09:35 – 10:10**      **A New Frontier: Human Microbiome and Personalized Medicine**  
Prof.Dr. Tanıl Kocagöz, *MD, PhD*, İstanbul, Türkiye
- 10:10 – 10:40**      **Coffee Break**
- 10:40 – 11:15**      **Pharmacovigilance and Adverse Drug Reaction (ADR) Prediction**  
Prof.Dr. Semra Şardaş, *PhD*, İstanbul, Türkiye
- 11:15 – 11:50**      **Genetic Counseling for Personalized Medicine**  
Dr. Belgin Kesim, *MD*, İstanbul, Türkiye
- 12:00 – 13:30**      **LUNCH**
- 13:30 – 14:30**      **FINAL EXAM**

## REGISTRATION

REGISTRATION FEE *	Before 1 June 2012				After 1 June 2012			
	Daily		4-Day		Daily		4-Day	
<b>Participant</b>	200 TL	80 €	500 TL	200 €	250 TL	100 €	600 TL	240 €
<b>Student</b>								
Undergraduate Student	50 TL	20 €	100 TL	40 €	75 TL	30 €	150 TL	60 €
Graduate Student	75 TL	30 €	150 TL	60 €	100 TL	40 €	200 TL	80 €
<b>Accompanying person</b>	25 TL	10 €	50 TL	20 €	35 TL	15 €	70 TL	28 €

1 € = 2.500 TL

\*Registration includes access to sessions, coffee breaks and welcome cocktail.

4-day lunch: 50 TL (20 €) (daily: 15 TL - 6 €)

Gala Dinner: 65 TL (25 €)

## ACCOMMODATION

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# LET'S GET PERSONAL

from “disease-centered” healthcare  
to  
“human-centered” healthcare

**because we are all different!**

## Cooperation of the Following Organizations is Kindly Acknowledged

Düzen Laboratories

Eskişehir Pharmacists' Chamber

İstanbul Pharmacists' Chamber

Scientific and Technological Research Council of Turkey (TÜBİTAK)

Turkish Association of Pharmacists

Turkish Association of Physicians

