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Dr. Sotiria Boukouvala is an Associate Professor in Molecular Genetics at the Department of Molecular Biology and Genetics (MBG) of Democritus University of Thrace (DUTH), Greece, where she has been a faculty member since 2006 and also lectured on fixed-term contracts between 2003 and 2005. In the past, her academic modules have included *Molecular Biology* (4 semesters), *Applied Biotechnology* (3 semesters), *Human Genetics* (2 semesters) and *Cell Biology* (1 semester). She is currently teaching two core modules, *Applications of Biosciences in Medicine* (since 2007) and *Genomics* (since 2010). She coordinated (2012-17) the elective module *Introduction to Bioscience Enterprise*, initially funded by an institutional programme for Innovation & Entrepreneurship. In 2014-17, she also coordinated a graduate module on *Bio-Entrepreneurship*. For those two modules, she mobilised a network of 11 MBG graduates and 16 experienced professionals from the industry, related regulatory and technology transfer agencies, as well as from the Career Office and Innovation & Entrepreneurship Unit of DUTH, who liaised with students and visited the department for several years. Her postgraduate lectures at DUTH have additionally covered scientific topics relevant to pharmacogenomics, comparative genomics, molecular diagnostics and drug development. In 2011-17, she served as departmental coordinator of the European mobility programmes *Leonardo Da Vinci* and *Erasmus (Studies, Traineeships and International Credit Mobility)*, overseeing 45 mobilities involving 26 institutions in 11 countries (including the EU, Australia and USA) that created opportunities for students and graduates. An incoming Fulbright Scholar from the USA carried out research in her lab (2018-19), while visiting students from Australia (2016) and France (2021-2024) have also trained with her. She currently serves as Fulbright Greece Outreach Ambassador and has also been invited to teach at the University of Angers in France (2022, 2024).

Dr. Boukouvala is the Director of the Laboratory of Molecular Genetics & Pharmacogenomics-Toxicogenomics. Her research group applies comparative genomic approaches to investigate genes and molecular mechanisms that modulate the effects of xenobiotics (drugs, carcinogens, pollutants and other toxic agents) on living organisms. Her research has been funded by national and international grants (including various bilateral programmes), and has also been supported by non-profit organizations and the industry. She has had research collaborations with the University of Oxford and Kingston University London (UK), the Eötvös Loránd University of Budapest (Hungary), the US Department of Agriculture (USA), the Universities of Paris-Décartes and Paul Sabatier-Toulouse (France), the University of Geneva (Switzerland) and Children's Mercy Research Institute (USA). Her research and educational collaborative network has also involved scientists from the Universities of Louisville (USA), Queensland (Australia), Angers (France), Jordan and Koç University (Turkey), as well as colleagues from Greek academic institutions and the industry. She participates in international pharmacogenomics initiatives coordinated in the US by the Centers for Disease Control & Prevention (CDC), the Pharmacogenomics KnowledgeBase (PharmGKB), the Pharmacogenomics Variation Consortium (PharmVar) and the Clinical Pharmacogenetics Implementation Consortium (CPIC). She is Chair of the International Arylamine *N*-acetyltransferase Gene Nomenclature Committee (<http://nat.mbg.duth.gr/>). Many of her collaborators have visited MBG-DUTH and she has been invited to give research seminars and lectures at academic institutions in the US, Europe and Australia. She has co-organised several scientific conferences and colloquia with international participation, and has served as reviewer for over 40 scientific journals.

Before her appointment at Democritus University of Thrace in 2006, Dr. Boukouvala was a research scientist with the Genome Biochemistry group at Exelixis Inc. in South San Francisco, CA, USA, where she investigated candidate pharmaceutical targets. She also worked in the R&D department of the Greek biotechnology company Medicon Hellas S.A., where she developed innovative systems for genetic diagnosis.

Dr. Boukouvala carried out her *D.Phil.* at the University of Oxford, UK, where she worked with Professor Edith Sim at the Department of Pharmacology as a graduate and post-doctoral research scientist between 1998 and 2002. She also holds a *M.Sc.* degree with Distinction (1997) from Imperial College London, UK, and a *B.Sc.* in Biology (1996) from the University of Athens, Greece. She has been a Scholar of the Hellenic Scholarship Foundation, the Bodossaki Foundation and Imperial College London. She received a Fondation Santé Fellowship in 2006, and in 2008 she was awarded the National UNESCO-L'Oréal Prize for Women in Science. In 2012, she was the first Greek scientist to be awarded the US-EU Fulbright-Schuman Research Scholarship.

Dr. Boukouvala has also studied classical music, holding degrees in piano, opera-lied-oratorio and harmony.

Dissertations

D.Phil. Thesis: “Expression of the genes for arylamine *N*-acetyltransferases in mice” (University of Oxford, 2002).

M.Sc. Thesis: “Analysis of the critical region for the mouse neural tube defect mutant *looptail* by representational difference analysis” (Imperial College, University of London, 1997).

B.Sc. Thesis: “Detection of structural mutations in the alpha-globin chain by direct sequencing of the alpha 2 (*HBBA2*) globin gene” (University of Athens, 1996).

Publications

Ivanova, D.; Fakis, G.; Boukouvala, S. (2024). Differential expression of *NAT1* pharmacogene in hormone receptor positive *vs.* negative female breast tumors may affect drug treatment. *Pharmacogenetics and Genomics*, 34(7):246-251.

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- Boukouvala S.; Glenn A.E. (2018). Arylamine *N*-acetyltransferases in eukaryotic microorganisms. Book chapter (255-281) in “*Arylamine N-acetyltransferases in Health and Disease: From Pharmacogenetics to Drug Discovery and Diagnostics*”, edited by E. Sim & N. Laurieri (World Scientific).
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