

# Eleftherios Kontizas

Biologist | PhD

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## EDUCATION

- **PhD** “The impact of *Helicobacter pylori* infection on DNA damage repair mechanisms”, **Faculty of Biology of National and Kapodistrian University of Athens (NKUA)**, (2022).
- **MSc** “Applications of Biology in Medicine”, **Faculty of Biology & Medicine School of NKUA**, (2017).
- **BSc**, **Faculty of Biology of NKUA**, (2014).

## RESEARCH - LABORATORY - PROFESSIONAL EXPERIENCE

### **A. Hellenic Pasteur Institute, Diagnostic Department, Laboratory of Autoimmune Neurological Diseases.**

**Scientific Personnel**, (01/2023-present).

- Detection of Myasthenia Gravis-related (AChR, MuSK), Lambert-Eaton Myasthenic Syndrome-related (VGCC), Autoimmune Encephalitis-related (e.g., NMDA-R, GABA $\beta$ -R), Neuromyelitis Optica Spectrum Disorder-related (MOG, AQP-4), Paraneoplastic Neurological Syndromes-related (e.g., Hu, Yo), Autoimmune Myopathies-related (e.g., HMGR, cN1A, PM-Scl100) and Peripheral Neuropathy-related (Myelin, MAG, Gangliosides) autoantibodies.
- IgG oligoclonal bands detection in serum and CSF samples.

### **B. LABnet, Molecular Biology & Microbiology Diagnosis Departments.**

**Molecular Biologist - Microbiologist**, (12/2021-01/2023).

- Molecular and Immunological detection of infectious diseases (e.g., SARS-CoV-2, Influenza, *Chlamydia*, CMV).
- Molecular detection of genetic diseases (e.g., JAK2 V617F, BCR-ABL).
- Bacteria and yeast culture test, Kirby-Bauer test, VITEK 2 microbial identification and antibiotic susceptibility testing.

### **C. In Vitro Labs SA, Molecular Diagnosis Department.**

**Molecular Biologist**, (07/2021-11/2021).

- Molecular detection of infectious (SARS-CoV-2, HBV, HCV) and genetic (CF  $\Delta$ F508, Thrombophilia-associated gene variants, JAK2 V617F, HLA-B27) diseases.

### **D. Hellenic Pasteur Institute, Medical Microbiology Laboratory & Diagnostic Department.**

**PhD candidate - MSc student**, (09/2016-07/2021).

- Construction of genetically modified *H. pylori* strains. RNA-Seq-based transcriptome-bioinformatics analysis of *H. pylori*-infected gastric cells. Investigation of *H. pylori* infection and the involvement of CagA virulence factor, *E. coli* infection and *H. pylori*-*E. coli* co-infection in the promotion of genomic instability, DNA damage repair deregulation and oxidative stress.
- Investigation of EMMPRIN protein role in the promotion of genomic instability and epithelial-mesenchymal transition.

**Diagnostic Services Department Support**, (09/2016-07/2021).

- Isolation-culturing of *H. pylori* strains from gastric biopsy specimens. DNA extraction from gastric biopsy specimens and *H. pylori* molecular detection. Antibiotic susceptibility testing of *H. pylori*.

### **E. Faculty of Biology, Botany section, NKUA.**

**Undergraduate student**, (10/2007-10/2009).

- Study of green algae cytoskeleton organization and role in cell cycle promotion, division, morphology and viability.

## LABORATORY SKILLS

DNA-RNA isolation, AGE, SDS-PAGE, siRNA gene silencing, cloning techniques, plasmid recombination utilizing restriction enzymes, PCR, cDNA synthesis, RT-PCR, RT-PCR primers/probe design, protein isolation, protein concentration assay, Western Blot, ELISA, Comet Assay, Flow Cytometric measurement of ROS production, Immunofluorescence, Radioimmunoassay, Isoelectric Focusing and Immunoblotting, Gram and Ziehl-Neelsen staining, nuclei staining, brightfield - fluorescence - differential interference contrast microscopy. Culturing of clinical *H. pylori* strains from biopsy specimens, phenotypic and molecular characterization of antibiotic susceptibility, bacteria and yeast culture test, microbial identification and antibiotic susceptibility testing (Kirby-Bauer test, VITEK 2, Etest), *in vitro* infection of gastric cells with *H. pylori* and *E. coli* strains, culturing of transformed and non-transformed eukaryotic cells, handling and infection of laboratory animal models (mice) with *H. pylori* strains.

## PUBLICATIONS - PRESENTATIONS IN CONFERENCES - SCHOLARSHIPS

3 publications (2 as first author), 5 oral and 24 poster presentations in international and national conferences, participation in 2 research programs, 3 scholarships from Hellenic Pasteur Institute, 1 oral and 2 poster presentation awards, 3 travel grants for the participation in international conferences, participation in 2 conference organizing committees.