

**BIOGRAPHICAL SKETCH**

NAME: Dr. Athanassios Kakkanas

Web of science researcher I.D.: AAQ-5185-2020

POSITION TITLE: Specific Operations Scientist A

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Degree in Chemistry from the National & Kapodistrian University of Athens.	7,5	04/1984	Chemistry
Postgraduate student of the Department of Biology the National & Kapodistrian University of Athens at the Laboratory of Virology of the Hellenic Pasteur Institute.	10	05/1990	Biology

**A. Personal Statement**

I am a Chemist with a doctorate in Biology and my doctoral dissertation is on the function of oncogenes. From the beginning of my career at the Hellenic Pasteur Institute I have joined the Department of Microbiology and especially in the laboratories of Virology. We do basic research on viruses and my interests are to investigate the mechanisms of action of viruses, their life cycle and the pathogenesis they cause in humans. I have dealt with and studied a wide range of viruses, such as Herpes viruses, Papilloma viruses, Hepatitis C virus and recently with SARS-CoV2. Due to my long experience, I have trained almost all the staff who have worked in the laboratory from time to time and I have actively participated in the elaboration of doctoral dissertations and scientific studies by the staff. I have constructed hundreds of plasmids and dozens of viruses to support the laboratory's research work, as well as dozens of biotechnology products of interest.

**B. Positions and Honors**

From 09/1984 I was Technician in the Virology Dept. of Hellenic Pasteur Institute. In parallel I was preparing my doctoral dissertation which was prepared at the Laboratory of Virology of the Hellenic Pasteur Institute and at the Biological Department of EKPA in 1991.

At 04/2001 I was selected to take the position of Specific Operations Scientist C' degree and positioned at the laboratory of Molecular Virology in the Department of Microbiology of EIP.

At 07/2007 I was promoted, following a proposal by the Promotions Committee, as Specific Operations Scientist B' and positioned at the laboratory of Molecular Virology in the Department of Microbiology of EIP.

At 10/2019, I was promoted, following a proposal by the Promotions Committee, as Specific Operations Scientist A' and positioned at the laboratory of Molecular Virology in the Department of Microbiology of EIP.

Institutional Scientific Board: From June 2017 up to May 2021, I was member of the Scientific Board of Hellenic Pasteur Institute.

Member of Scientific Societies

- Member of the Hellenic Society of Biochemistry & Molecular Biology.
- Member of the Hellenic Virological Society. Union of Greek Chemists.

Biosafety Officer: I have been appointed by the Executive Board of the Institute as the Biosafety Officer of the Institute, with extensive tasks of dealing with chemical and radioactive hazards that the Institute may face.

Chief of the Civil Defense: I have been appointed as Chief of the Civil Defense of the Institute, for the protection of the Personnel and the facilities, in cases of emergency, as defined by the Ministry of National Defense

Biosafety Conferences Speaker (2018-2019):

1. Bimonthly Health and Good Laboratory Practices Seminars organization for the all the newcomers in HPI (PhD, Internships, master's degree students, etc.) on the following topics: Biological Risks in Laboratories. The use of GMOs. Good Laboratory Practices. Biological risks, Radiological Hazards in Laboratories, Disinfection and sterilization. Fumigation methods, Chemical Hazards in Laboratories. Good Laboratory Practices, Ergonomics and Safety in Laboratories, Other Laboratory dangers and risks.

2 Speaker at the 1st Conference organized on October 19, 2016 at EIP, by the Hellenic Institute of Occupational Health and Safety (EL.IN.Y.A.E.) and the Hellenic Pasteur Institute (E.I.P.) on the topic: "Health and safety in research laboratories". Title of speech "Biological hazards and use of recombinant pathogens 1"

3 Speaker at the 2nd Conference organized on March 15, 2017 by the Hellenic Institute of Occupational Health and Safety (EL.IN.Y.A.E.) and the Hellenic Pasteur Institute (EIP), in collaboration with the Aristotle University of Thessaloniki (AUTH) and the National Center for Research & Technological Development (EKETA), at the Aristotle University of Thessaloniki, on health and safety in research laboratories.

Title: "Biological hazards and use of recombinant pathogens".

4 Speaker at the Conference organized on March 16, 2017 by the TEI of Athens on "Health and Safety in the laboratories of the TEI of ATHENS". Title: "Biological hazards and use of recombinant pathogens".

5 Badounas A.F, Kakkanas A. Oikonomopoulou C. BIORISK-BIOTERRORISM: Genetic editing & CRISPR Technology. Is it a national security threat? "Security and Crisis Management International Conference". ATHENA 18. Turning risk into opportunity: An efficient crisis management. Dekelia Air Base, Athens, Nov 2018.

6 Speaker on congress " Biological hazards and use of recombinant pathogens. Occupational Health and Safety: Experiences and Prospects:. Ioannina Greece. Oct. 2018

7 Speaker on congress: The role of the Biosafety Officer in Health Enterprises. Prevention and strategies to ensure Public Health. 2nd Panhellenic Conference on Health and Safety at Work. Athens Concert Hall. Nov 2019.

Conference Organization: "Exposure Limit Values (E.L.V.) of chemicals. New obligations of the European Union ". Amphitheater of the Hellenic Pasteur Institute, Athens. November 2018.

C. Contributions to Science

Participation in programs - Development of new technologies:

A. Scientific Associate in the EPET / SPA program "Production of vaccines with classical Molecular Biology" [Title: "Glycoproteins from Herpes Simplex Virus and vaccines containing them". EPO: 796333, WO 9617938].

B. Scientific Associate in the BIOMED program: "Molecular approaches to analyze Hepatitis C virus replication for the development of effective therapy and vaccines".

C. Scientific Associate in the BIOTECH program: European Union Network for evaluation of nucleic acid - based vaccines for induction of antiviral immunity ".

D. Scientific Associate in the Quality of life program, EUROAMP: "European network for development of novel safe vaccines on new generation amplicons (AMP) and other defective HSV-1 derived vectors as foreign antigen delivery systems".

E. Scientific Associate in the PTR Grant program: "Implications of HCV diversity in the diagnosis and pathogenesis of virus infection in Eastern Europe, SE Asia and Central Africa. 2003 - 2006.

F. Scientific Associate in the OP program. "EDUCATION AND LIFELONG LEARNING" ACTION "EXCELLENCE" entitled: "The role of oncogenic viruses in the pathogenesis of hepatocellular carcinoma "The biological action of HCV core / core + 1 proteins in the development of liver cancer". - NSRF 2013.

Z. Scientific Associate in the project "Development proposals of research institutions - KRIPIS": EU4.2: "The role of micro-RNAs as possible diagnostic markers for HCV-associated hepatocellular carcinoma". 2013 - 2014.

H. Scientific responsible for the ACIP program A23 / 13: "Effect of the genetic variability of the HCV core protein on the wnt /  $\beta$ -catenin signaling pathway and its regulation by the stress-related protein kinase PKR: Role in HCV induced pathogenesis and hepatocellular carcinoma development". 2013 - 2014.

Education of students and research associates.

Doctoral Degree Ph.D.: Supervision of Dr. Stefanie Aicher the Department of Pharmacology, Pharmaceutical Biotechnology and Biomedicine, University of Patras, prepared her postdoctoral degree Ph.D. in 2018, entitled: "Genetic diversity of Hepatitis C virus core gene and transferal regulation".

Diplomatic tasks:

Alexandra Kouriantaki (2009), Department of Biochemistry and Biotechnology (TBB), University of Thessaly. entitled: "Cloning and expression of NS4b proteins of subtypes 1a, 4p and 6a of the hepatitis C virus (HCV) in *E. coli*".

Stefani Aicher (2010) Department of Biochemistry and Biotechnology (TBB), University of Thessaly, entitled: "Functional study of the core gene of the hepatitis C virus".

Training of students: I have been trained totally twenty undergraduate students and six post graduated scientists from foreign Universities

Conference Organization: "Exposure Limit Values (E.L.V.) of chemicals. New obligations of the European Union ". Amphitheater of the Hellenic Pasteur Institute, Athens. November 2018.

Publications during the period 2018 – 2021:

1. Aicher S, Kakkanas, A, Cohen L, Blumen B , Oprisan G, Njouom R, Meurs E. F., Mavromara P and Martin A, (2018). Differential regulation of the Wnt/ $\beta$ -catenin pathway by hepatitis C virus recombinants expressing core from various genotypes. *Sci Rep.* Jul 25;8(1):11185. (IF:4,122)

2. Karamichali E., Chihab H., Kakkanas A., Marchio A., Karamitros T., Pogka V., Varaklioti A., Kalliaropoulos A., Martinez-Gonzales B., Foka P., Koskinas I., Mentis A., Benjelloun S., Pineau P. and Georgopoulou U. (2018). HCV defective genomes promote persistent infection by modulating the viral life cycle. *Front Microbiol.* 2018 Dec 3;9:2942. (IF2018:4.019).

3. Dimitriadis A, Foka P, Kyratzopoulou E, Karamichali E, Petroulia S, Tsitoura P, Kakkanas A, Eliadis P, Georgopoulou U, Mamalaki A (2021). The Hepatitis C virus NS5A and core proteins exert antagonistic effects on HAMP gene expression: the hidden interplay with the MTF-1/MRE pathway. *FEBS Open Bio.* 2021 Jan; 11(1): 237–250. (IF2020: 2.231).

Full list of publications: Web of Science Researcher ID: AAQ-5185-2020

Additional Information: Research Support and/or Scholastic Performance

WEB OF SCIENCE DOCUMENTS: 24  
TOTAL TIMES CITED: 259  
H-INDEX: 10  
AVERAGE CITATIONS PER DOCUMENT: 10.7

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