

# CURRICULUM VITAE

**Vassiliki Labropoulou**

**Senior Researcher**

**Insect Molecular Genetics and Biotechnology**

**Institute of Biosciences and Applications**

**National Centre for Scientific Research "Demokritos"**

**Patr. Gregoriou E & 27 Neapoleos Str, 15341**

**Agia Paraskevi**

**GREECE**

Tel. Office: 210 650 3621 Lab: 210 6503609

email: [beslabro@bio.demokritos.gr](mailto:beslabro@bio.demokritos.gr)

Web site: <http://bio.demokritos.gr/en/main-page-imgb>

## **Education**

1991: Ph.D. Thesis, Faculty of Medicine, Microbiology Department, University of Ioannina.

1980: Bachelor of Science, B.Sc. Specialization in Biochemistry. Concordia University, Montreal, Canada.

## **Professional Appointments**

- 2009: Senior Researcher, Insect Molecular Genetics and Biotechnology, Institute of Biology, NCSR "Demokritos" Athens, Greece
- 2002: Insect Molecular Genetics and Biotechnology, Institute of Biology, NCSR "Demokritos"
- 1999: Researcher, Institute of Biology, NCSR "Demokritos"
- 1997: Assistant Researcher, Laboratory of Chemical Ecology and Natural Products, Institute of Biology, NCSR "Demokritos"
- 1994: Assistant Researcher, Molecular Virology Laboratory, Hellenic Pasteur Institute.
- 1991: Research Associate, Molecular Virology Laboratory, Hellenic Pasteur Institute.
- 1987: Research Scientist, Virology Department, Hellenic Pasteur Institute
- 1983: Research Scientist, Immunology Department, Hellenic Pasteur Institute.
- 1981: Research Scientist, Department of Biology, Nuclear Research Centre "Demokritos" Athens, Greece

## **Fellowships**

- 2001:** CIHEAM IAM, Mediterranean Agronomic Institute of Chania, Greece. Visiting Scientist.
- 1995:** Unite des Papillomavirus, Inserm U190, Institut Pasteur Paris, France. Visiting Scientist at the Laboratory of Gerard Orth
- 1992:** Department of Microbiology, University of Ferrara, Italy. Visiting Scientist at the Laboratory of Prof. E. Cassai.
- 1988:** INSERM U298, Centre Hospitalier Régional Universitaire, Angers, France. Visiting Scientist at the Laboratory of Dr Phil. Brachet.

## **Research Interests**

Viral immune responses. Molecular mechanisms involved in host immune suppression and protein-protein interactions between host and viral proteins. Transcription regulation and signalling pathways of immune related genes and antimicrobial peptides in insects.

Development of methods for insect pest control: recombinant insect viruses and protein expression system and their biotechnological applications. Functional genomics: development of high-throughput screening systems for the detection of biologically active compounds, functional expression of metabolic enzymes that are involved in insecticide resistance.

**Peer review Publications: 26**

**Reviews and Proceedings: 5**

**Publication in Greek Journals: 7**

**Abstracts in International Meetings: 44**

**Abstracts in National meetings: 23**

**Citations: 1140** (Scopus), **1525** (Google Scholar)

**h-index: 14** (Scopus), **16**, i10 index 19 (Google Scholar)

## Awards

Laudation for the basic research presentation, International Congress for Lung Cancer, 1994  
First prize of Hellenic Medical Association Congress, 1990  
First prize of Hellenic Medical Association Congress, 1986

## Educational Activities

- 2021:** The Baculovirus Expression System. Joint Post-Graduate Programme (JPGP) in “Applied Biochemistry: Clinical Chemistry, Biotechnology, Evaluation of Pharmaceutical Products” The Department of Chemistry, University of Patras, Greece, and the Institute of Biosciences and Applications, NCSR “Demokritos”.
- 2020:** Laboratory workshop for secondary school teachers. Institute of Biosciences and Applications (IBE) of NCSR “Demokritos”, in collaboration with the European Learning Laboratory for the Life Sciences (ELLS) of the European Molecular Biology Laboratory (EMBL) 11 to 13 September 2020.
- 2018, 2019, 2020:** Innate immunity in Insects. Joint Post-Graduate Programme (JPGP) in “Applied Biochemistry: Clinical Chemistry, Biotechnology, Evaluation of Pharmaceutical Products” The Department of Chemistry, University of Patras, Greece, and the Institute of Biosciences and Applications, NCSR “Demokritos”.
- 2018, 2019:** Molecular Biology techniques Summer Camp for High School students. IBA NCSR “Demokritos”.
- 2005:** Lepidoptera parasitism by hymenopteran: Symbiosis with DNA viruses and host immunosuppression. Summer School NCSR “Demokritos”.
- 2000, 2001, 2003:** Eukaryotic Transcription Graduate courses, Institute of Biology, NCSR “Demokritos”
- 2000:** Molecular mechanisms of HPV Infections. Invited speaker at Panhellenic Congress on Biochemistry and Molecular Biology. Athens.
- 1998, 1999, 2001:** The Molecular Biology techniques in viral and microbial diagnosis. Post-graduate seminars, Microbiology Department, Medical School, University of Athens.
- 1997:** PCR in viral and microbial diagnosis. Post-graduate seminars, Medical Biochemistry. Microbiology Department, Medical School, University of Athens.
- 1996:** Invited speaker at 3<sup>rd</sup> Congress on Virology, Athens, Greece. Laboratory Diagnosis of HPV. **1993:** Workshop on Clinical Virology. Hellenic Pasteur Institute, Athens. Detection and typing of HPV in biopsies and scrapes by Southern blot and PCR analysis. Lecture, organization and demonstration of the techniques. Athens.
- 1992:** Workshop on Human Papillomavirus, Hellenic Pasteur Institute, Athens.
- 1989:** Theoretical course Workshop on AIDS organized by the Hellenic Pasteur Institute and the Faculte St Antoine (Paris VI), Rhodes.
- 1989:** Practical course on PCR techniques organized by M. Moncany, Unite d’Oncologie Viral, Institut Pasteur Paris, held at the Hellenic Pasteur Institute, Athens.

## Publications

1. Peng Wei P., Demaeght P., De Schutter K., Linda Grigoraki L., **Labropoulou V.**, Riga M., Vontas J., Ralf Nauen R., Dermauw W., Van Leeuwen T. (2020). “Overexpression of an alternative allele of carboxyl/choline esterase 4 (CCE04) of *Tetranychus urticae* is associated with high levels of resistance to the keto-enol acaricide spiromeclofen”. *Pest Manag Sci* 76: 1142-1153.
2. M Feng, S Fei, J Xia, V **Labropoulou**, L Swevers, J Sun. “Antimicrobial peptides as potential antiviral factors in insect antiviral immune response” *Frontiers in Immunology* 11, 2020
3. Zhao Y., Kolliopoulou A., Ren F., Lu Q, **Labropoulou V.**, Swevers L., and Sun J. (2019). “Transcriptional response of immune-related genes after endogenous expression of VP1 and exogenous exposure to VP1-based VLPs and CPV virions in lepidopteran cell lines. *Mol Genet Genomics*. 294: pp. 887-899
4. Zhao Y., Sun J., **Labropoulou V.** and Swevers L. (2018). Beyond Baculoviruses: Additional biotechnological platforms based on insect RNA viruses *Advances in Insect Physiology*. 55: 123-162.
5. Swevers L., Ioannidis K., Kolovou M., Zografidis A., **Labropoulou V.**, Santos D., Wynant N., Broeck JV., Wang L., Cappelle K., Smagghe G. (2016). Persistent RNA virus infection of lepidopteran cell lines: Interactions with the RNAi machinery. *J Insect Physiol*. 2016: 93-94: 81-93.
6. Chen Z., Nohata J., Guo H., Li S., Jianqiu Liu, Guo Y., Kimiko Yamamoto, Kadono-Okuda K., Liu C., Kallare P., Kumar a, Nagaraju J, Zhang Y., Liu S., **Labropoulou V.**, Swevers L., Tsitoura P., Iatrou K., Gopinathan K.P., Goldsmith M.R., Xia Q. & Mita K. (2015). Construction, Complete Sequence, and Annotation of a BAC Contig Covering the Silkworm Chorion Locus. *Scientific Data* 2; 150062.
7. Chen Z., Nohata J., Guo H., Li S., Liu J., Youbing Guo, Yamamoto K, Kaduna-Okuda K., Liu C., Kalmar P., Kumar a, Nagaraju J., Zhang Y., Liu s, **Labropoulou V.**, Swevers L., Tsitoura P., Iatrou K., Gopinathan K.P., Goldsmith MR, Xia Q. & Mita K. (2015). A comprehensive analysis of the chorion locus in silkworm. *Scientific Reports* 5: 16424.
8. Magkrioti, Chr., Iatrou, K. and **Labropoulou, V.\*1** (2011). Differential inhibition of BmRelish1-dependent transcription in lepidopteran cells by bracovirus ankyrin-repeat proteins. *Insect Biochem Mol Biol*.41 (12): 993-1002.
9. Tsitoura, P., Andronopoulou, E., Tsikou, D., Agalou, A., Kotzia, G.A., **Labropoulou, V.**, Swevers, L., Georgoussi, Z., Iatrou, K. (2010). Expression and membrane topology of *Anopheles gambiae* odorant receptors in lepidopteran insect cells. *PLoS One* 5 (11):e15428.
10. Soin, T., De Geyter, H., Mosallanejad H., Iga, M., Martín, D., Ozaki, S., Shigeki Kitsuda, S., Harada, T., Miyagawa, H., Stefanou, D., Kotzia, G., Efröse, R., **Labropoulou, V.**, Geelen, D., Iatrou, K., Nakagawa,

- Y., Janssen, C.R., Smagghe, G., and Swevers, L. (2010). Assessment of species specificity of molting accelerating compounds in Lepidoptera: comparison of activity between *Bombyx mori* and *Spodoptera littoralis* by *in vitro* reporter and *in vivo* toxicity assays. *Pest Manag Sci* 66: 526–535.
11. **Labropoulou, V.\*<sup>1</sup>**, Douris, V., Stefanou D., Magrioti C., Swevers L., and Iatrou, K. (2008). "Endoparasitoid wasp bracovirus-mediated inhibition of hemolin function and lepidopteran host immunosuppression". *Cell Microbiol* 10: 2118-28.
  12. Soin, T., Swevers L., Mosallanejad, H., Efrose, R., **Labropoulou, V.**, Iatrou, v K., Smagghe, G. (2008). Juvenile hormone analogs do not affect directly the activity of the ecdysteroid receptor complex in insect culture cell lines. *J. Insect Physiol.* 54: 429-433.
  13. Andronopoulou, E., **Labropoulou, V.**, Douris, V., Woods, D. F., Biessmann, H., and Iatrou, K. (2006). Specific interactions amongst Odorant Binding Proteins of the African malaria vector *Anopheles gambiae*. *Insect Molecular Biology*, 15: 797-811.
  14. Douris, V., Swevers, L., **Labropoulou, V.**, Andronopoulou E., Georgoussi, Z., Iatrou, K. (2006). Stably transformed insect cell lines: tools for expression of secreted and membrane-anchored proteins and high throughput screening platforms for drug and insecticide discovery. *Adv. in Virus Res* 68: 113-156
  15. Papadopoulou, K., **Labropoulou, V.**, Davaris, P., Mavromara, P., Papastamatiou, H. (1998). Detection of human papillomaviruses in squamous cell lung carcinoma in Greece. *Virchows Arch* 433: 49-51.
  16. **Labropoulou, V.**, Diacomanolis, E., Dalianas, S., Kalpaktoglou, K., Balamotis, A., Mavromara, P. (1997). Type-specific genital HPV genotypes in benign, dysplastic and malignant biopsies in patients from Greece. *Sex Transm Dis* 24: 469-474.
  17. **Labropoulou, V.**, Diacomanolis, E., Dalianas, S., Kalpaktoglou, K., Rodolalakis, A., Beaudenon, S., Kakkanas, A., Mavromara, P. (1996). Genital papillomavirus types in Greek women with high grade intraepithelial neoplasia and cervical carcinoma. *J Med Virol* 48: 80-87.
  18. Markoulatos, P., **Labropoulou, V.**, Kordossi, A., Krikelis, V., Spyrou, N., Moncany, M. (1995). A combined indirect Elisa and immunoblotting for the detection of intrathecal Herpes Simplex Virus IgG antibody synthesis in patients with herpes simplex virus encephalitis. *J Clin Lab Analysis* 9: 325-333.
  19. **Labropoulou, V.**, Balamotis, A., Toska, A., Rotolla, A., Mavromara-Nazos, P. (1994). Typing of human papillomavirus in condylomata acuminata from Greece. *J Med Virol* 42: 259-263.
  20. Ong, C-K., Chan, S-Y., Campo, M.S., Fujinaga, K., Mavromara-Nazos, P., **Labropoulou, V.**, Pfister, H., Tay, S-K., Meulen, J., Villa, L., Bernard, H-U. (1993). Evolution of human papillomavirus type 18: an ancient phylogenetic root in Africa and intratype diversity reflect coevolution with human ethnic groups. *J Virol*, 67: 6424-6431.
  21. Ho, L., Chan, S., Burk, R., Das, B., Fujinaga, K., Icenogle, J., Kahn, T., Kiviat, N., Lancaster, W., Mavromara-Nazos, P., **Labropoulou, V.**, et al. (1993). The genetic drift of human papillomavirus type 16 is a means of reconstructing prehistoric viral spread and the movement of ancient populations. *J Virol* 67: 6413-6423.
  22. Markoulatos, P., Kordossi, A., Karagiorga-Lagana, M., **Labropoulou, V.**, Moncany, M. (1993) HIV1 related sequences detection by PCR in seronegative multitransfused thalassemic patients. *J Vir Diseases* 1: 50-60.
  23. Dicou, E., Nerriere, V., **Labropoulou, V.** (1991). Naturally occurring antibodies against the nerve growth factor in human and rabbit sera: comparison between control and herpes simplex virus-infected patients. *J Neuroimmun*, 34: 153-158.
  24. Krikelis, V., Spyrou, N., Markoulatos, P., **Labropoulou, V.** (1988). Human enteric virus serotypes occurring in domestic sewage in Greece. *Z Gesamte Hyg* 34: 523-526.
  25. Portocala, R., Spyrou, N., **Labropoulou, V.**, Pateraki, E. (1988). The presence of both antiviral and antiserum antibodies in sera from patients with adenovirus and influenza B. *Virologie*, 39 (3): 207-216.
  26. Dourtoglou, V., Gross, B., **Labropoulou, V.**, Zioudrou, C. (1984). o-BNT hexafluorophosphate as coupling reagent for the synthesis of peptides of biological interest. *Synthesis* 7: 472-474.

### **Reviews and Proceedings**

1. Morou, E.; Meristoudis, C.; **Labropoulou, V.**; Riga, M; Van Leeuwen, T; Iatrou, K ; Vontas, J ; Swevers, L. (2013) Production in insect cell lines and functional characterization of mite and whitefly esterases implicated in insecticide resistance. *FEBS Journal* 280: 584
2. Magkrioti, C., Iatrou, K., **Labropoulou, V.** (2008). Interactions between proteins of the symbiotic polydnavirus CcBV of the endoparasitic wasp *Cotesia congregata* and proteins of the NFκB pathway in insect and mammalian cell lines. *FEBS JOURNAL* 275: 272.
3. **Labropoulou, V.**, Douris, V., Tsikou, D., Efrose, R., Kotzia, G., Stefanou, D., Morou, E., Georgoussi, Z., and Iatrou, K. (2007). Genetically transformed insect cell lines as screening tools for improved insecticides and pharmaceuticals. *Entomological Research* 37, p. A86 -87.

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\*<sup>1</sup> Corresponding author

4. **Labropoulou, V.**, Douris, V., Stefanou, D., Magrioti, C., Andronopoulou, E., Swevers, L., Iatrou, K. (2007). The interaction of the *Cotesia congregata* bracovirus CcV1 protein with *Manduca sexta* hemolin. *J Insect Science* 7: 2007. Swevers, L., Andronopoulou, E.
5. **Labropoulou, V.** and Mazomenos, B. (2001). Pheromone binding and odorant binding proteins of *Sesamia Nonagriodes*. *ISOT/ECRO Abstracts. Chemical Senses* 26: 795.

***Publications in Greek Journals***

1. **Labropoulou, V.**, Diacomanolis, E., Dalianas, S., Kalpaktoglou, K., Balamotis, A., Mavromara P. (1997). Genital HPV genotypes in premalignant and malignant biopsies in patients from Greece. *Gynaecol & Obstet* 6: 74- 81.
2. **Labropoulou, V.**, Papadopoulou, K., Mavromara, P. (1997). The role of HPV16 and HPV18 variants in the pathogenesis of cervical cancer. *Gynaecol. & Obstet.* 6: 42-45.
3. **Labropoulou V.** (1996). Detection and HPV typing in cervical neoplasia. *Cancer and Colposcopy* 2 (4):251-258.
4. **Labropoulou, V.**, (1996). Laboratory diagnosis of HPV infections. *Hell Virology* 1:77-78.
5. **Labropoulou, V.**, Diacomanolis, E., Dailianas, S., Kalpaktoglou, K., Balamotis A., Mavromara, P. (1996). Molecular epidemiology of anogenital HPV infections. *Hell Virology* 1: 38-41.
6. Mavromara, P., **Labropoulou, V.**, Papadopoulou, K., Prousali, E. (1995). Laboratory detection of HPV. *Acta Microbiol Hell* 40: 64-67.
7. **Labropoulou, V.**, Balamotis, A., Papadopoulos, C., Toska, N., Stratigos, I., Mavromara-Nazos, P. (1992). Typing of Human Papillomaviruses in genital warts in Greek women. *Hellenic Congress on Virology*, Abstract book p.240-245.