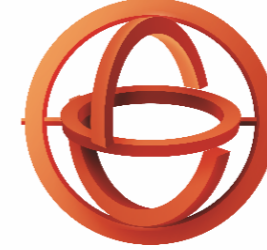


Description of Funded Research Projects

1<sup>st</sup> Call for H.F.R.I. Research Projects  
to support Post-Doctoral Researchers



**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

Research Project Title:

**The role of phagocyte activation and  
autophagy in the management of  
neonatal sepsis**

**Principal Investigator:**

**Eleni Vergadi**

**Popular Title:**

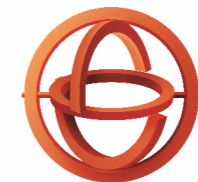
**NeoPhagES: Neonatal Phagocyte Enhancement in  
Sepsis**

**Scientific Field:**

**Life Sciences, Immunity and Infection**

**Host Institution:**

**University of Crete**



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Sepsis is the host's overwhelming and life-threatening response to infection. In the neonatal period, sepsis is responsible for substantial morbidity, mortality and long-term neurodevelopmental sequelae. Group B Streptococcus (GBS) is responsible for the majority of sepsis and meningitis cases in infants less than 3 months old worldwide. The “immaturity” of neonatal innate immune response is the major cause of neonatal susceptibility to infection. Up to now, there is no effective immunomodulatory strategy to enhance neonatal immune response in sepsis.

In this study we aim to investigate the ability of several molecular pathways to enhance neonatal phagocyte microbicidal capacity and response in sepsis. The work will further propose preventive and therapeutic approaches in targeting selected pathways and validate them in a pre-clinical setting to pave the way to the development of therapeutics in combating neonatal sepsis, the prognosis of which remains too dismal.

Sepsis in neonates and young infants has high mortality and morbidity rates and a tremendous negative impact in our perinatal health rates. The well - being of our population starts from the neonatal period and adverse events in this susceptible age group may have devastating neurodevelopmental outcomes in the later life. It is important to invest in measures that will reduce the impact of neonatal infections and improve survival and morbidity rates of children and adult population.

In this research project we attempt to shed light on molecular mechanisms that augment the neonatal immune response to infections and prevent pathogen invasion. We will investigate the efficacy of several molecular immunomodulatory treatments adjunctive to antibiotics as novel therapeutic targets in sepsis. We believe that such therapies will have an important positive impact in perinatal morbidity and mortality rates and in long term disabilities in neonates.

To me, H.F.R.I. funding  
would mean...

“



H.F.R.I. funding supports our research effort in a difficult time for research in Greece. It has been the motivation for the continuation of our research project and gives us possibilities for its implementation and expansion. It also provides new work opportunities and strengthens the research team with new members.

*The Principal Investigator,  
Eleni Vergadi*

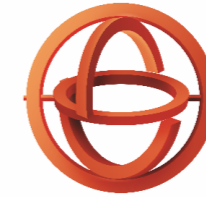
## Funding

Amount: **180,000 €**

Duration: **36 months**

Foundation: **H.F.R.I.**





**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

## CONTACT

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HELLENIC REPUBLIC  
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GENERAL SECRETARIAT FOR  
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