

**VIP**Virtual
Internationalization
Program

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UNIVERSITY
of NICOSIA | Global
Semesters

BE A VIP THIS SUMMER!

Life & Health Sciences Virtual Internships

PROGRAM TERM

Summer 2021

PROGRAM DATES

June 8 – July 23, 2021

APPLICATION DEADLINE

May 25, 2021

PROGRAM COST

\$1,170

INTERNSHIPS FOR CREDIT WITH CULTURAL ENRICHMENT

Build Your Resume/CV During this Summer!

Research Internship Projects

✔ Scorpio Venom Peptides Against SARS-CoV-2

- The project aims to identify in silico scorpion antiviral peptides or antimicrobial peptides potential to inhibit SARS-CoV-2 attachment to the host cell by binding the ACE2 receptor or TMPRSS2 receptor disrupting their interaction with the RDB domain of the spike protein S of the virus.

Requirements: Passion for Science, good knowledge of Organic Chemistry and Biology, IT Skills.

✔ Development of a Database that Contain Short Peptides (Up To 5 – 8 AA) Self Assembled Nanostructures

- The project aims to build a database with short self assembled peptides will work as a platform for the design and experiment novel applications of these magnificent peptides.

Requirements: Passion for Science, ability to search in Scientific Databases, good knowledge of Organic Chemistry and Biology, IT Skills, willing to learn to design and use softwares like Chems sketch, Chemdraw, Avogadro, Samson and work with Webtools like SWISS-ADME, etc.

Application Requirements

1

Select
“VIP Internship Program”
In Your Application

2

Include Your
Statement of Interest
In Your Online Application Form

3

E-mail
a Copy of Your Resume to:
admissions@globalsemesters.com

④ **Investigation of Chemical and Physicochemical Properties of Small Molecules which Prevent SARS CoV-2 Entry by Elevating the pH of Endosomes**

- To identify the drugs tested preclinically or being tested clinically and found to be strong candidates to become useful clinical tools against SARS CoV-2, and to investigate their chemical and physicochemical characteristics like pKa, log P, molecular surface etc.

Requirements: Good knowledge of Chemistry and Biology.

④ **Natural Products with Inhibitory Effects Against Enzymes Linked to Alzheimer's**

- The project aims to review the available data on chemical compounds of plant origin with promising inhibitory effects against the enzymes (AChE and BChE) and build a database of the most promising compounds.

Requirements: Ability to search in Scientific Databases, good knowledge of Chemistry and Biology.

④ **Review of Zoonotic Diseases Transmitted from Birds to Humans**

- The spread of zoonotic diseases to humans either from livestock, pets and wildlife have constituted serious public health issues in human populations for thousands of years. In this study we will investigate the prevalence of zoonotic diseases that may be transmitted to humans by migratory birds, and the potential impacts on human health. control/containment.

Requirements: Good knowledge of Chemistry and Biology.

④ **Birds as Indicators of Microplastic Pollution**

- A literature review on the presence of microplastics in various bird species, and the impact on wildlife and the environment. Database searches, review of literature, data comparison between studies.

Requirements: Good knowledge of Chemistry and Biology.

④ **A Meta-Analysis of Songbird Poaching in the Mediterranean and Middle East**

- A systematic review of published literature; collation of published data in studies spanning more than 10 years; meta-analysis of the published data to determine overall trends.

Requirements: Good knowledge of Chemistry and Biology.

④ **In Silico Identification of Tau Aggregation Inhibitors as Potential Therapeutics of Alzheimer's Disease using Similarity Approach**

- The project aims to find compounds similar to known tau aggregation inhibitors such as curcumin (also β amyloid aggregation inhibitor used as a positive control in in vitro tau aggregation assays) or other compounds in clinical trials, and prioritize them according to properties including toxicity, lipophilicity, mutagenicity etc. The aim is to identify in silico other compounds that can be used as aggregation inhibitors that can eventually be verified by testing in vitro for activity.

Requirements: Good knowledge of Chemistry and Biology.