

## **Research Activities:**

**New guidelines have been set to the research competition, and the internship process with priority to NGU Graduates and Undergraduates.**

### **I. Research Competition:**

The students' research competition is announced after week 9 of each academic year.

Steps of the research competition:

- 1- After **registration**, each student must study one scientific research article from a provided list of articles, and then takes a quiz that covers those articles.
- 2- Based on the **grades of the quiz**, the students who pass the cut off are asked to prepare a **poster presentation for the earlier selected article and a 5-minute discussion, with a panel of judges.**
- 3- Based on the student's performance in the poster presentation, **top students are selected to start a hands-on lab experience** as the final step of the research competition where they learn some techniques and get to take part of working on small research projects.
- 4- **Students who fail to perform well in the poster presentation** are given a **second chance** and asked to prepare for a more detailed **PowerPoint presentation**, and if they pass the evaluation assessment by the judges, they can join the lab training.
- 5- **All students who do not pass any of the selection steps are highly encouraged to apply next year.**

**The best performers who completed the lab training, their grades are >75% and they wish to continue their lab work/training:**

Those students are invited to join the research team at SOM for an internship where they will be able to learn cutting-edge techniques in Molecular Genetics & Molecular Medicine as well as acquiring laboratory skills and knowledge in the running projects in the lab, that encompasses Molecular Cardiology, Molecular Hepatology, Molecular Neurology, etc....

Later, and according to their performance, they can be integrated into some running projects, poster presentations in international conferences, in addition to co-authoring peer-reviewed research articles.

### **Academic year 2024- 2025:**

- Registration for 2024-2024 research competition was open for students in December 2024.
- **Number of registered students: 110 students as follows:**  
**YEAR 1: 37 students.**  
**YEAR 2: 38 students.**  
**YEAR 3: 11 students.**  
**YEAR 4: 15 students**  
**YEAR 5: 9 students.**
- The quiz, presentation and selection process took place during the year 2025.
- **Number of students who passed the selection process and participated: 45 students.**

### **Academic year 2023- 2024:**

- Registration for 2023-2024 research competition was open for students in December with deadline 30<sup>th</sup> of January 2023.
- **Number of registered students: 95 students as follows:**  
**YEAR 1: 56 students.**  
**YEAR 2: 21 students.**  
**YEAR 3: 8 students.**  
**YEAR 4: 3 students**  
**YEAR 5: 7 students.**
- The quiz, presentation and selection process took place during the year 2024.
- **Number of students who passed the selection process and participated: 39 students.**

### **Academic year 2022- 2023:**

- Registration for 2022-2023 research competition was open for students in December with deadline 30<sup>th</sup> of January 2022.
- **Number of registered students: 80 students as follows:**

**YEAR 1: 46 students.**  
**YEAR 2: 9 students.**  
**YEAR 3: 4 students.**  
**YEAR 4: 13 students**  
**YEAR 5: 8 students.**

- The quiz, presentation and selection process took place during the year 2023.
- **Number of students who passed the selection process and participated: 28 students.**

## II. Lab work:



- **39 top medical students selected based on the competition during the academic year 2023-2024** underwent lab practice to perform basic and sophisticated experiments to be a nucleus for NGU research team in July 2024.
- **28 top medical students selected based on the competition during the academic year 2022-2023** underwent lab practice to perform basic and sophisticated experiments to be a nucleus for NGU research team in June/August 2023 and February 2024 for years 2,3 and 4.
- **48 top medical students selected based on the competition during the academic year 2021-2022 (Including all students who postponed because of COVID-19)** underwent lab practice to perform basic and sophisticated experiments to be a nucleus for NGU research team in July/August 2022

- **17 top medical students selected based on the competition during the academic year 2020-2021 (including some students who postponed because of COVID-19)** underwent lab practice to perform basic and sophisticated experiments to be a nucleus for NGU research team in March 2021
- **14 top medical students selected based on the competition during the academic year 2019-2020** but lab practice was postponed due to COVID-19 pandemic.
- **25 top medical students selected based on the competition during the academic year 2018-2019,** underwent lab practice to perform basic and sophisticated experiments to be a nucleus for NGU research team in November 2019.

Their first lab project was concerned with **DNA Cloning**, where they learn the following techniques:

1. Bacterial Transformation
2. Plasmid DNA extraction
3. DNA analysis using Gel electrophoresis.