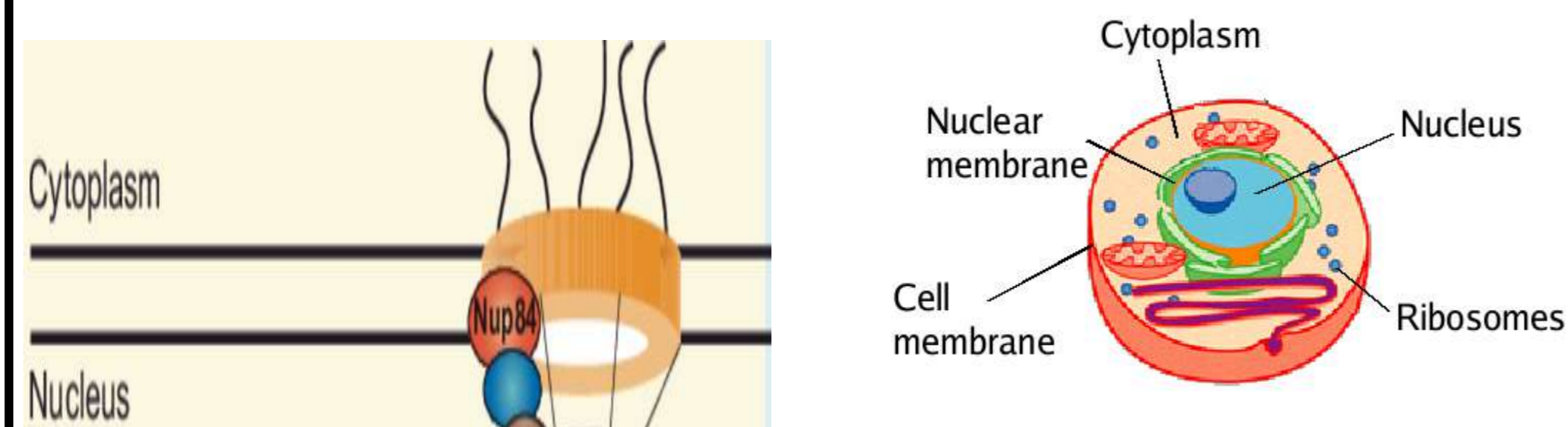


Placement at UAEU's laboratories

At UAEU, we had the opportunity to attend the laboratory of Dr Ahmed Al Marzouqi, that focused on chromatin remodelers of yeast. At this lab, we got to sample various different lab experiments related to microbiology. This included genetic engineering via yeast and bacteria transformation, followed by extracting DNA and proteins, and analysing them through processes such as CHIP, western blotting, and Confocal Fluorescence Microscopy. Dr Jisha and Dr Ahmed let us observe and participate in an experiment for the localization of NUP-84 on the nuclear membrane.

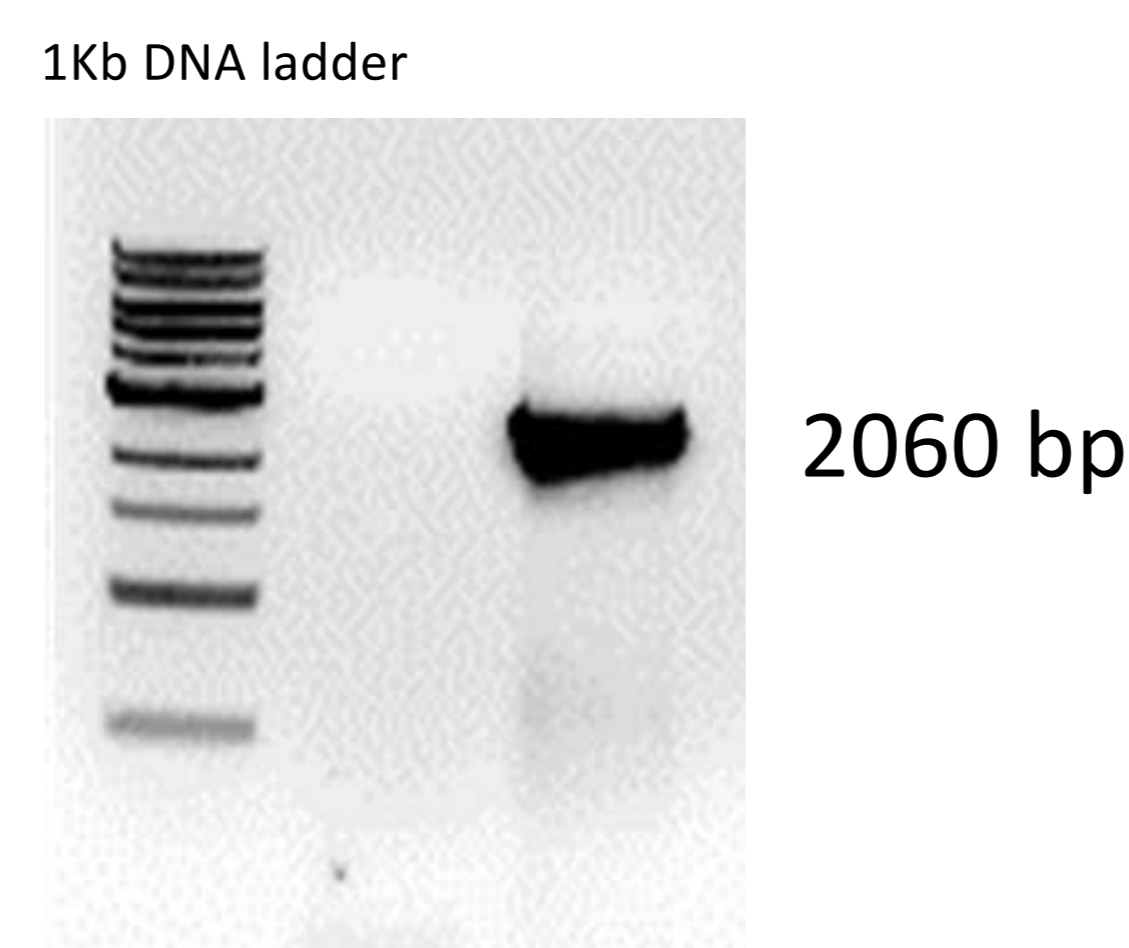
What is NUP-84

Heptameric Nup84/ Y complex is an essential scaffolding component of the NPC (Nuclear pore complexes). It functions as a selective gate for nucleocytoplasmic transport.) It is also involved in chromatin organization, the regulation of gene expression, and DNA repair.

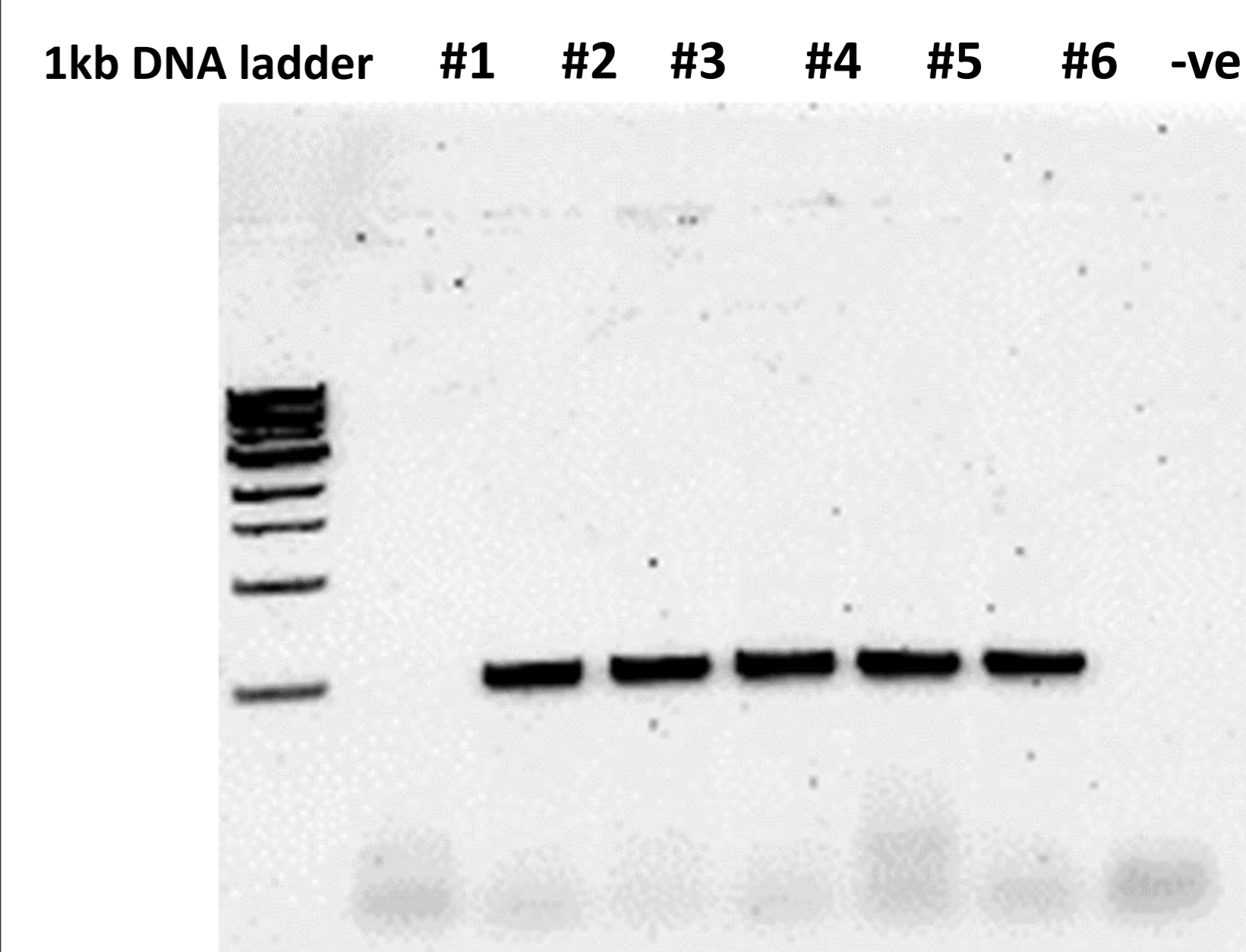


1 Nup84 GFP: His cassette

We used histidine as a selection marker for GFP tag. After having the GFP TAG-His ordered, we prepared PCR to be amplified. Electrophoresis was then done to separate DNA fragments, and we got 2060 BP.



2 Genomic DNA Isolation

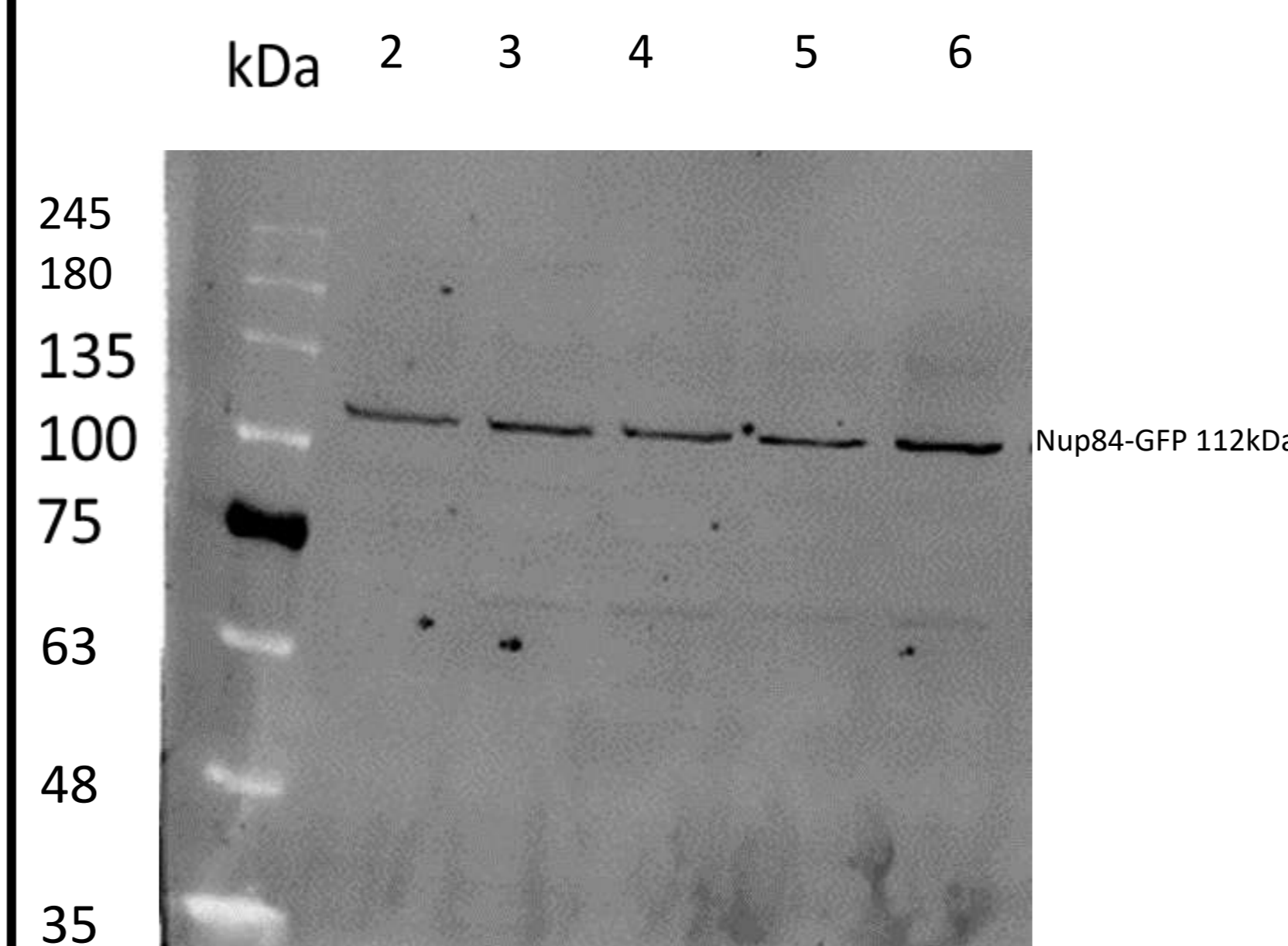


Overview

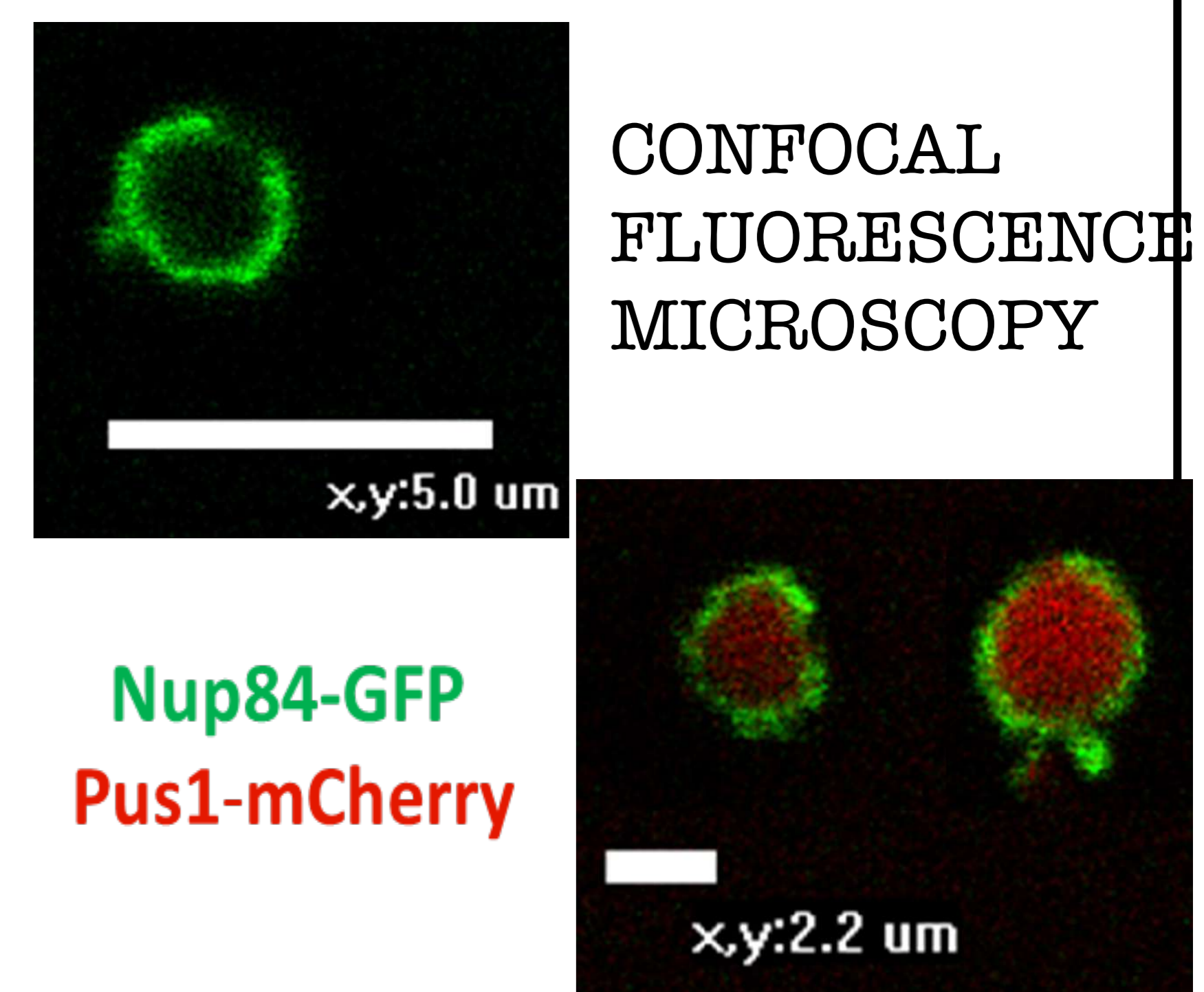
- PCR of GFP tag-HIS cassette for transformation
- Electrophoresis: to check if PCR worked
- Yeast transformation
- Streak out transformants
- Genomic DNA isolation & PCR screening
- Western blotting using GFP antibodies
- Confocal Fluorescence Microscopy

3 Western Blotting

After genomic DNA isolation, we do Western blotting to see if the GFP tag is attached.



4 Analyzing Data



Experiences in Al Ain



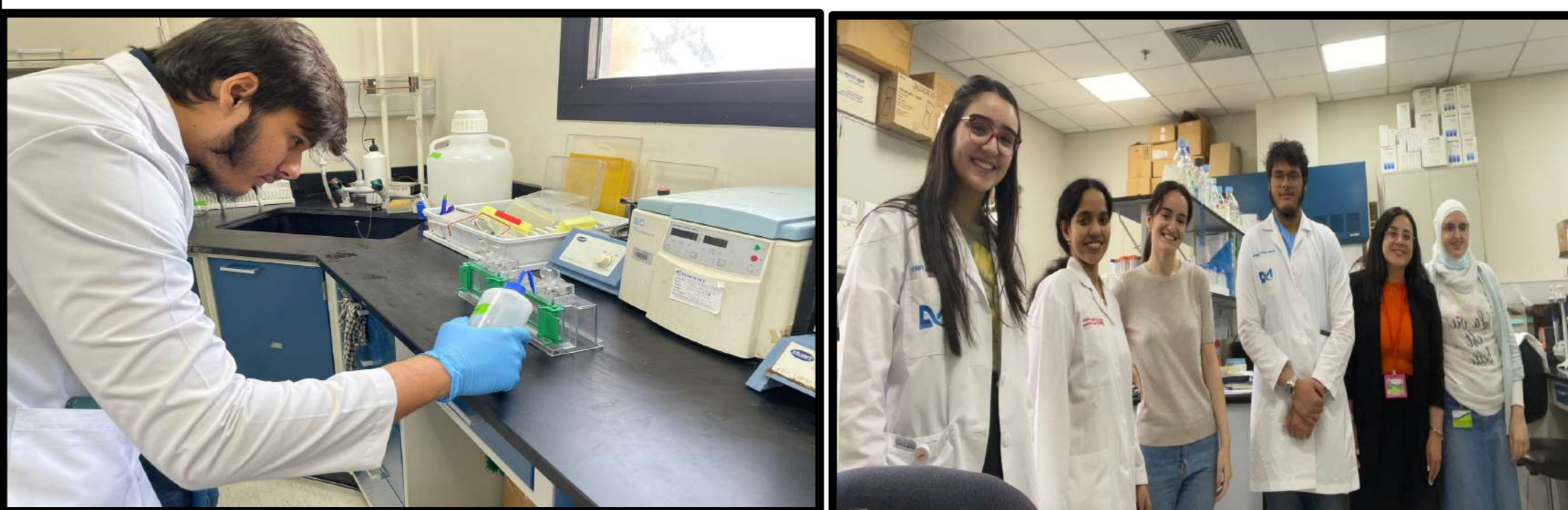
While in Al Ain, we got to explore the city and visit places like Jabal Hafet and Al Jahili fort. Overall, it was a great experience and we met amazing people that have been patient, kind, caring, and most importantly, passionate 😊

The Team



The Lab Team

Filling the wells



Western Blotting