Summer research fellowship (SRF)

Sharing Session

LEE Sze Yuen, Shadow

2022 SRF Participant, Major: Molecular biology and Biotechnology

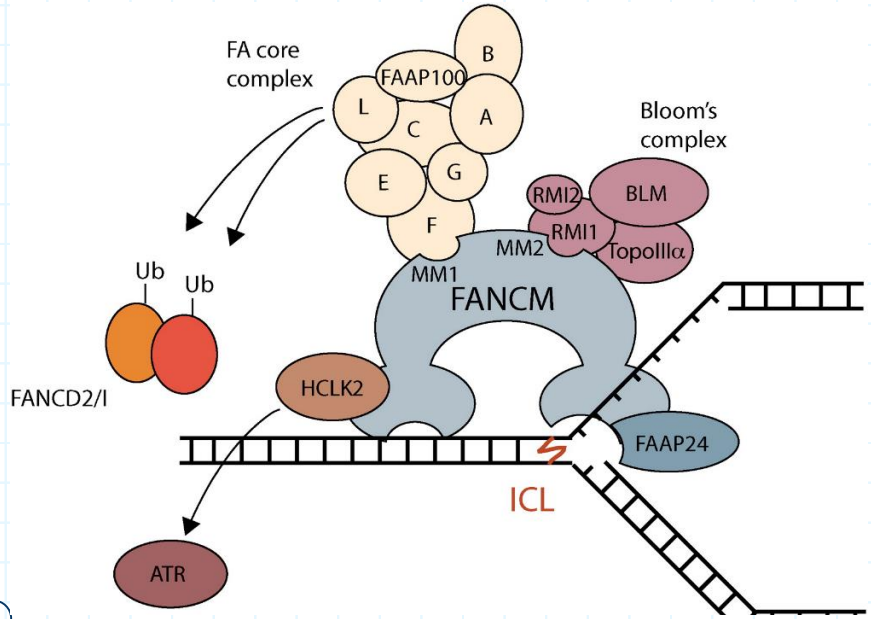
Table of contents

01

My research project

Fanconi anemia core complex M (FANCM)

- Mutation increase with higher cancer frequency
- A tumor suppressor
- Perform a general function in DNA replication and DNA repair

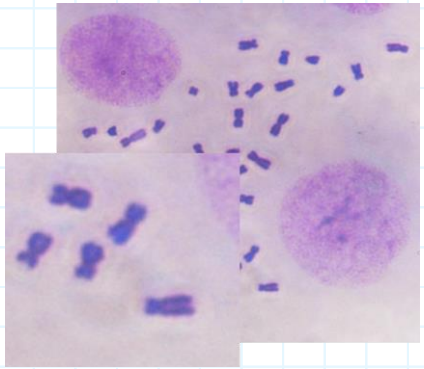


My research project

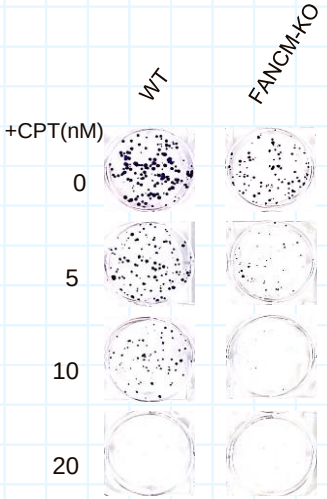
Function of FANCM in DNA damage response (DDR)

Supervisor ：Dr. CHAN, Gary Ying Wai

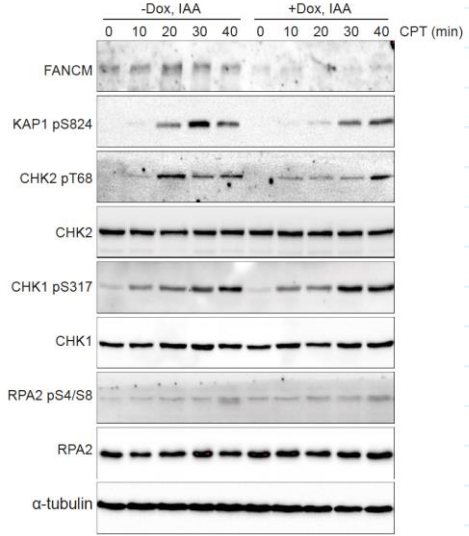
- Treating cell with DNA damage agent
- Carry out a series of experiments:



Mitotic Spread



Clonogenic Assay



Western Blot

02

Personal Experiences

Personal experiences

Prenetics™
NEXT GENERATION DNA TESTING

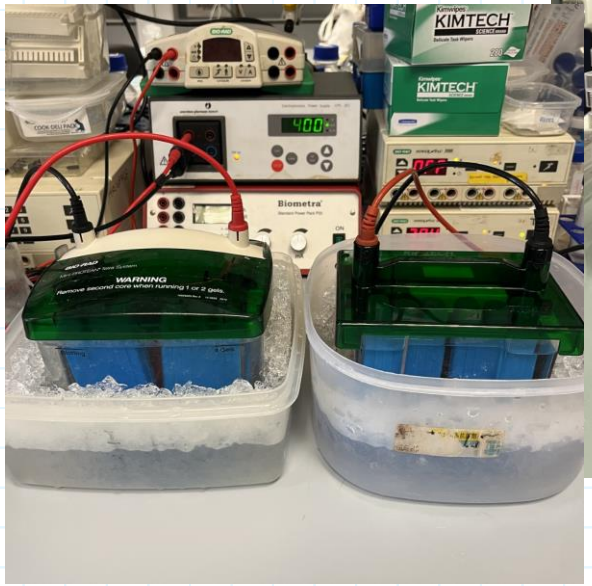
As a part-time assistant technical officer

- COVID-19 testing
- Assist MLT for the specimens' pre-processing steps
- Aliquot sample

CHAN LAB

As a student research assistant in Dr. Chan, Gary Ying Wai's laboratory

- work on a research project related to FANCM starting from year 2 sem 1
- determine whether FANCM is a potential target of cancer therapy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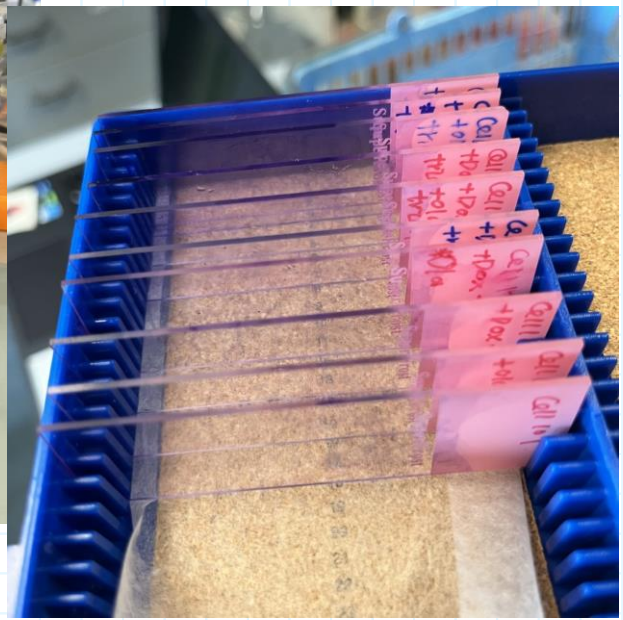
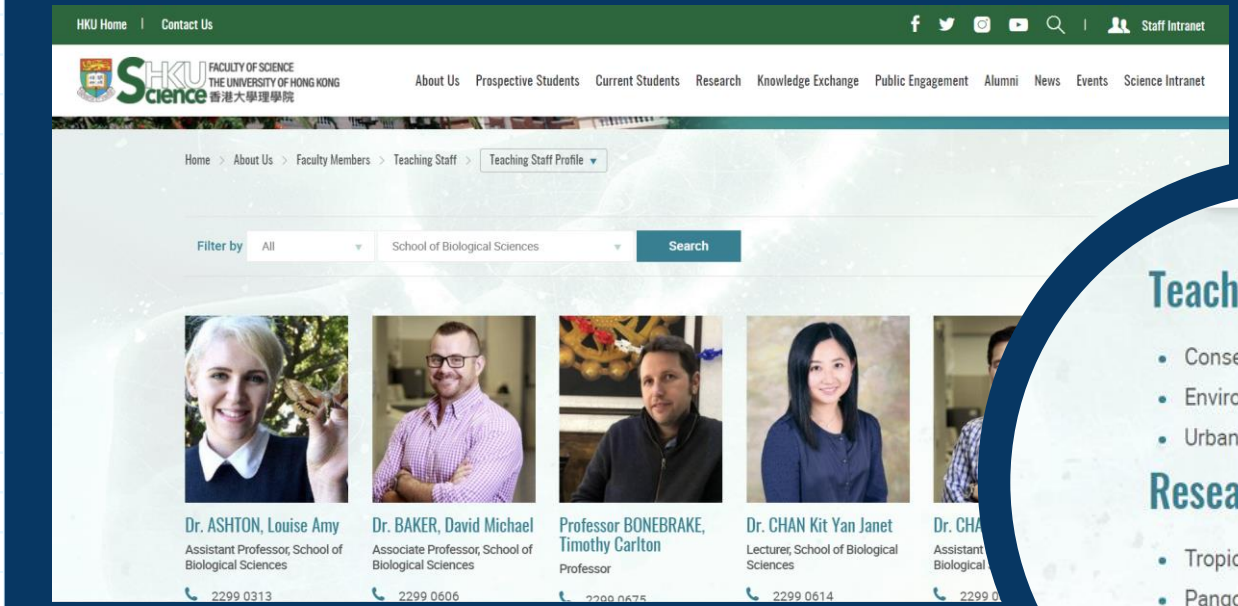
Biometra
WARNING
Remove second core when running 1 or 2 gels.



03

Approaching supervisors

Teaching staff profile @scifac.hku.hk

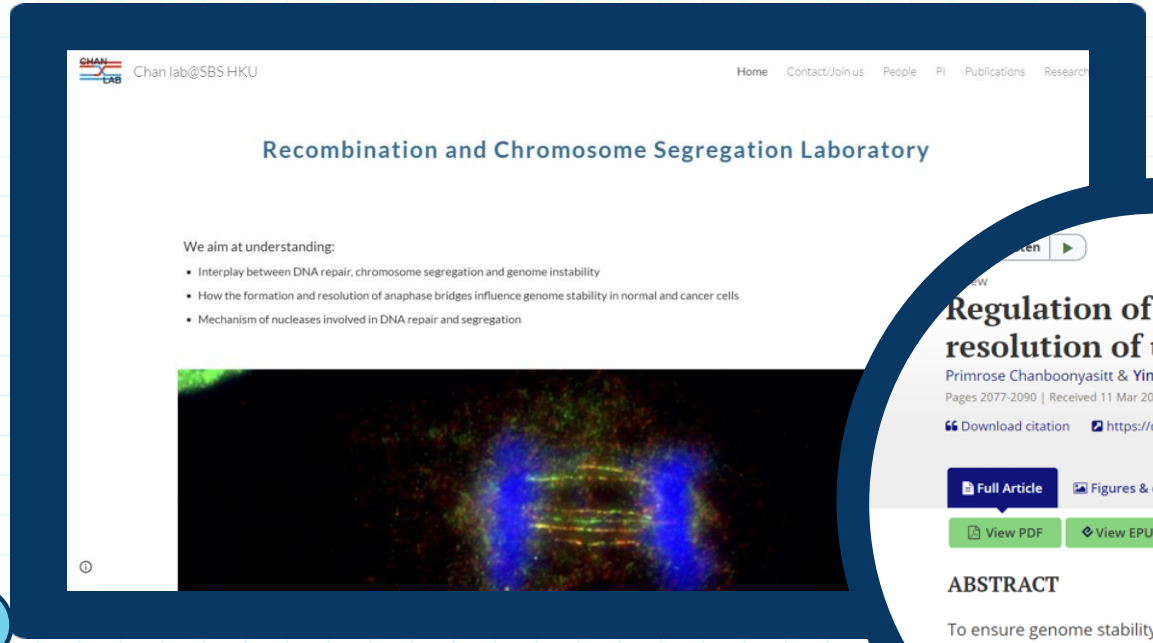


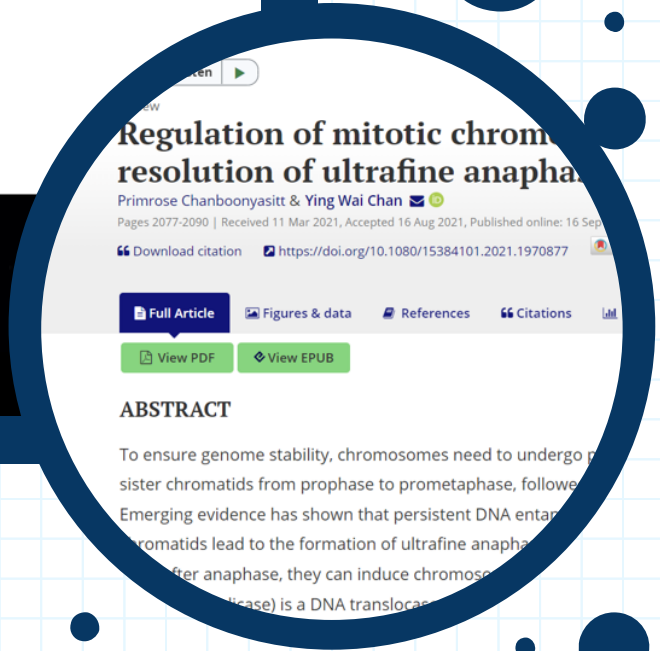
Teaching Areas

- Conservation Biology
- Environmental Data Analysis
- Urban Ecology

Research Interests

- Tropical climate change impacts
- Pangolins and pathogens
- Endangered species management
- Urban biodiversity
- Snakes and One Health
- ight-time ecology





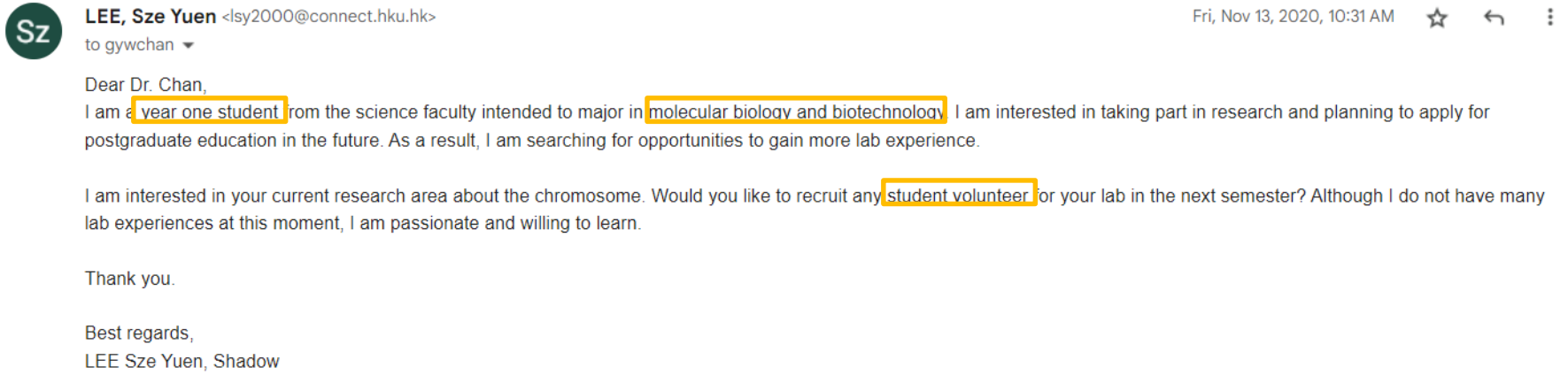
Website & publications

Send email (Don’t hesitate !)

Please state:

1. Your major and your year
2. Your purpose (SRF/student volunteer/student research assistant)
3. Your interest in research (related to the projects in their lab)

Example:



Sz

LEE, Sze Yuen <lsy2000@connect.hku.hk> Fri, Nov 13, 2020, 10:31 AM

to gywchan

Dear Dr. Chan,

I am a year one student from the science faculty intended to major in molecular biology and biotechnology. I am interested in taking part in research and planning to apply for postgraduate education in the future. As a result, I am searching for opportunities to gain more lab experience.

I am interested in your current research area about the chromosome. Would you like to recruit any student volunteer for your lab in the next semester? Although I do not have many lab experiences at this moment, I am passionate and willing to learn.

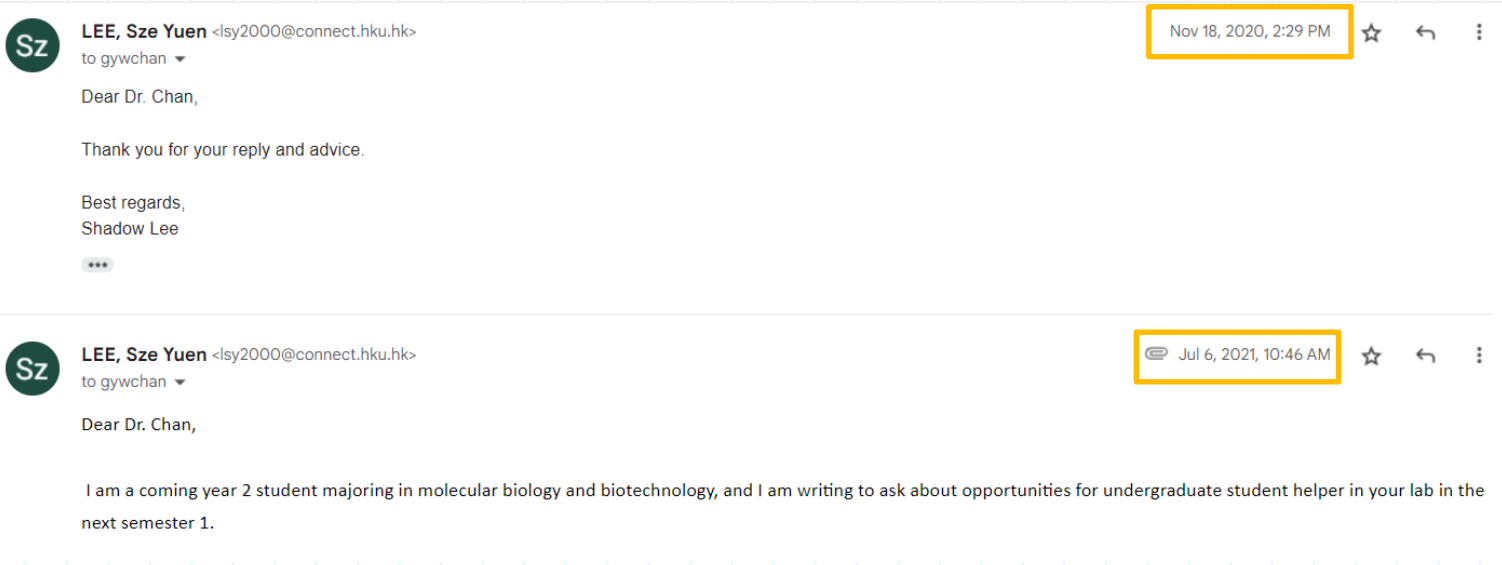
Thank you.

Best regards,

LEE Sze Yuen, Shadow

It's normal to be rejected by supervisors

Try to approach the same supervisor again when you have more experiences.
Approaching them by replying to the email you sent!



LEE, Sze Yuen <lsy2000@connect.hku.hk>
to gywchan

Nov 18, 2020, 2:29 PM

Dear Dr. Chan,

Thank you for your reply and advice.

Best regards,
Shadow Lee

•••

LEE, Sze Yuen <lsy2000@connect.hku.hk>
to gywchan

Jul 6, 2021, 10:46 AM

Dear Dr. Chan,

I am a coming year 2 student majoring in molecular biology and biotechnology, and I am writing to ask about opportunities for undergraduate student helper in your lab in the next semester 1.

04

Encounter difficulties

Unable to stick to my original plan

Title: Effect of FANCM in PARP inhibitor resistance

Name (UID): LEE Sze Yuen (3035779715) Curriculum: BSc (4), Year 2

1. Abstract

Previous study and our lab preliminary data showed that FANCM deficient cells are hypersensitive to PARP inhibitor (PARPi) (1), indicating that FANCM should be investigated as a potentially druggable target. Throughout this project, clonogenic assays will be carried out to determine the key domains of FANCM that are responsible for the resistance to PARPi. Therefore, full length and truncated FANCM -expressing cell lines will be generated and their responses to PARPi will be investigated.

- Cell line cannot be generated due to the delay and continuous failure of cloning for almost one year
- Need further trouble shoot
- Cannot start the experiments suggested on my proposal

Discuss with your supervisor

Can try to modified the title of your poster

The effect of FANCM in PARP inhibitor resistance

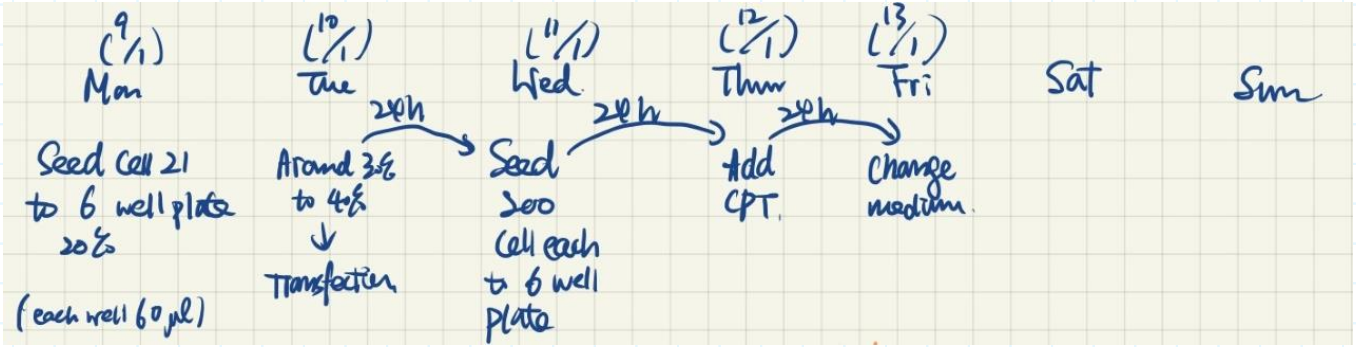
Function of FANCM in DNA damage response

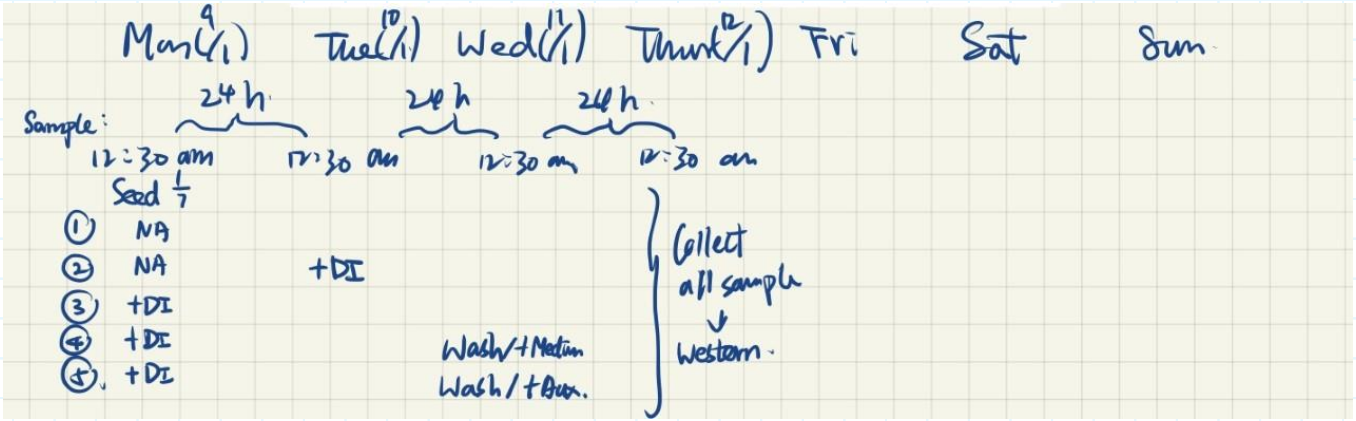
05

Lessons I learned

1. Time management

Write a weekly schedule every week before starting my experiments.

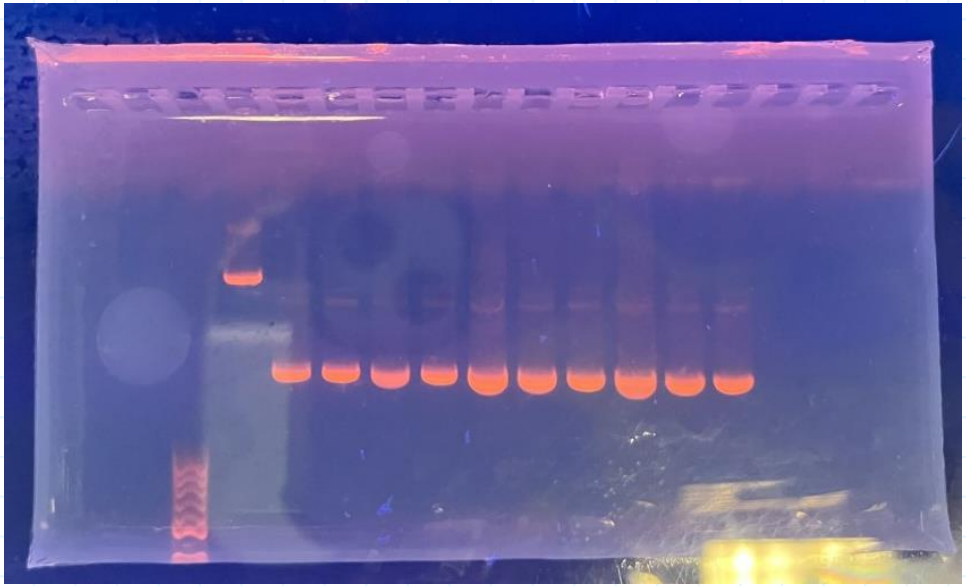


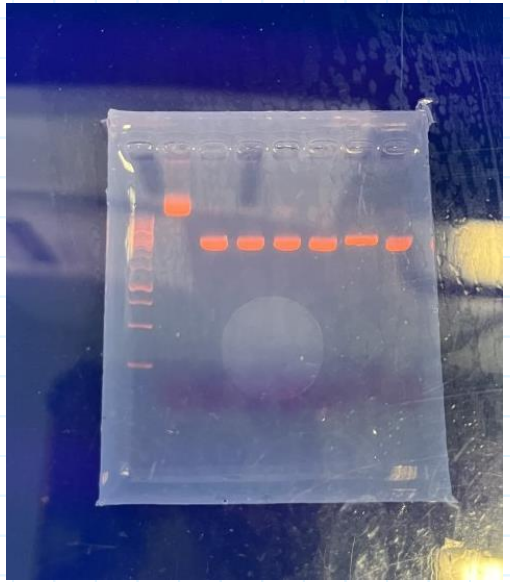


2. Don't focus too much on failure

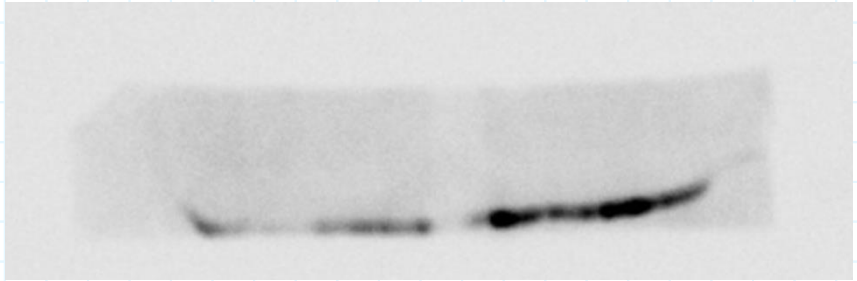
It is normal,

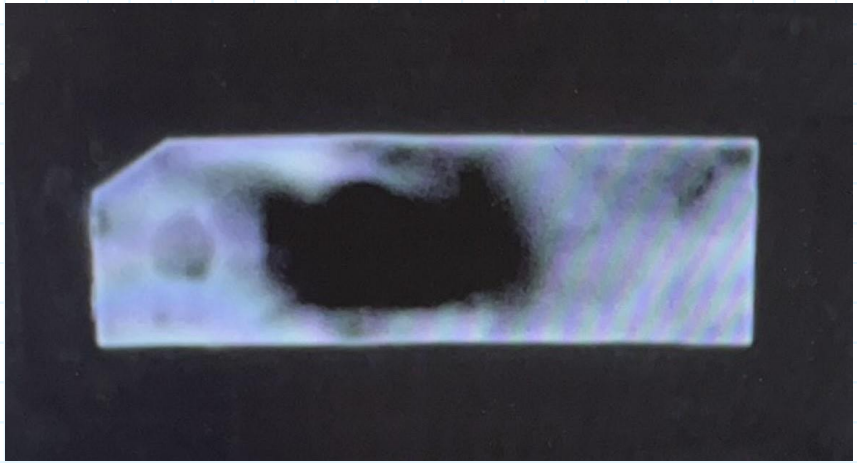
but don't forget to trouble shoot and modify your procedure after your failure.

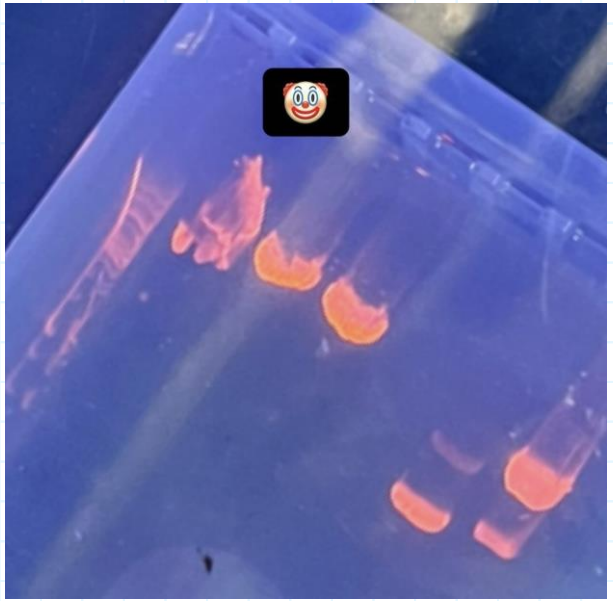


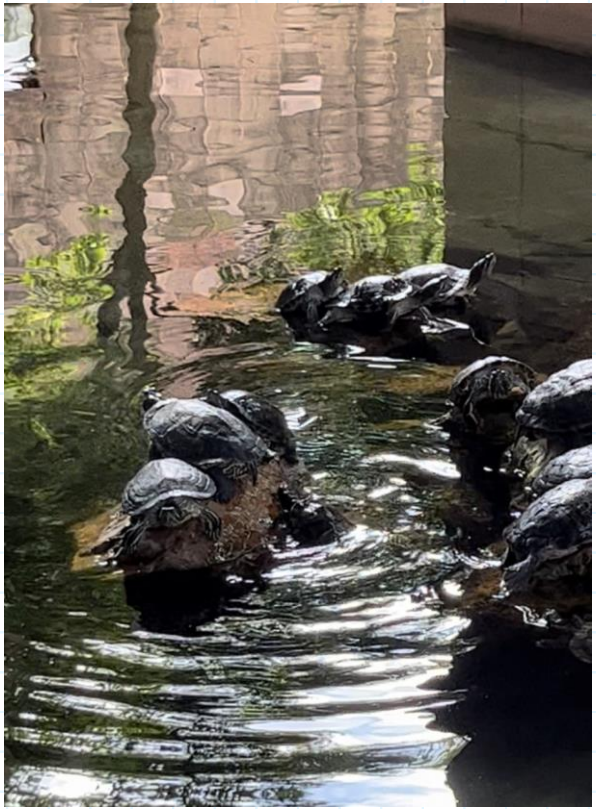


I failed to get the correct clone T-T









Find your happy place

3. Keep a work-life balance is important

Good physical health and mental health are the foundation of your road to success

Things I will do after finish my experiments

Thank you & good luck

My email: lsy2000@connect.hku.hk

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