#### 主辦單位

同步輻射蛋白質結晶學核心設施

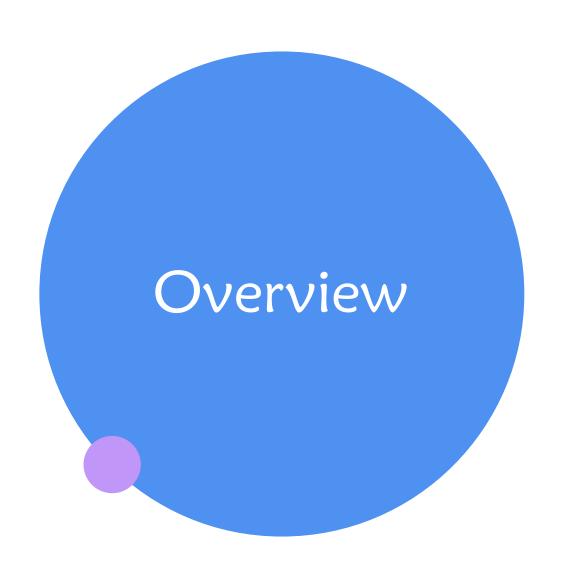
# 2024 蛋白質結晶學訓練課程

2024 Protein Crystallography Training Course

第一梯次:2024/7/22 ~ 7/26

第二梯次:2024/7/29~8/02

上課地點:國家同步輻射研究中心



• 課程简介 Introduction

• 課程表 Schedule

• 團隊成員

Team

· 參與學員 Participant

· 活動花絮 Photos

### Introduction

The Protein Crystallography Training Course series provides lecture programs and hands-on training. The goal of this training course is to disseminate experimental techniques of macromolecular crystallography to researchers or graduate student with an interest in using this specific method to further the scope of their research. This course covers broad spectrum of topics on synchrotron-based protein crystallography, ranging from crystallization of proteins, data collection strategy, phasing techniques, radiation damage on protein crystals, to structure determination of proteins.





# 課程表 Schedule

# 課程表 Scuedule

(7/22) Day 1 Registration 10:00~10:30	(7/23) Day 2 Breakfast 08:00~09:00	(7/24) Day 3 Breakfast 08:00~09:00
The Importance and Historical Review of PX	Data Collection Strategy in Rotation Geometry	Phase Problem and Phasing Methods
Introduction of Protein Crystallization		Comparison of MAD, MIR and SAD Phasing
Lunch 12:00~13:00 D260	Lunch 12:00~13:00 D260	Lunch 12:00~13:00 D260
Introduction of Crystal Symmetry	Step-by-Step Practice of Data Processing with the HKL2000	Step-by-Step Practice of Structure Determination by SAD Phasing with CCP4
Basic of X-ray Diffraction		
<b>Dinner</b> 18:00~19:00 D260	<b>Dinner</b> 18:00~19:00 D260	<b>Dinner</b> 18:00~19:00 D260
Basic of X-ray Diffraction	Individual Practice of HKL2000	Individual Practice of SAD Phasing
(7/25) Day 4 Breakfast 08:00~09:00	(7/26) Day 5 Breakfast 08:00~09:00	
Se-MAD/SAD and S-SAD Data Collection Strategy	Radiation Damage on Cryo-cooled Protein Crystals	
Introduction of MR Phasing	Cryo-Technique in Protein Crystallography	
Step-by-Step Practice of Ligand Search by MR with CCP4	Group Photos and Farewell	
Lunch 12:00~13:00 D260	Lunch 12:00~13:00 D260	
Optical Screening, Cryo-sample preparation, Mounting and Centering Individual Practice of Ligand Search by MR with CCP4 Experimental Station Tour		
<b>Dinner</b> 18:00~19:00 D260		
• Individual Practice		
Note: Gray section means hands-on session		



## Team

#### 主辦人員

李宜靜

#### 講師

課程:周重光、姜政宏、陳懿慧、曾建璋、黃駿翔、趙俊雄、劉怡君

實習:周重光、曾建璋、黃駿翔、葉孋嬋

#### 實習助教

江佩珣、李姿玲、柯金伶、陳怡蓉、陳懿慧、黃怡珍、黃婉婷、葉孋嬋、劉怡君、郭乃瑛

#### 行政人員

黃楨盈、陳慧珊、邱采綺

# 報名洽詢

#### 李宜靜小姐

連絡電話:03-5780281#7310

E-mail: yc.lee@nsrrc.org.tw

