

Course Information		
Course title	Cellular Network of Biological Molecules	
Semester	104-2	
Designated for	VARIOUS PROGRAM BIOTECHNOLOGY PROGRAM	
Instructor	TANG-LONG SHEN	
Curriculum Number	Prog5171	
Curriculum Identity Number	P05 U4120	
Class		
Credits	2	
Full/Half Yr.	Half	
Required/ Elective	Elective	
Time	Friday 234	
Remarks	The upper limit of the number of students: 60.	
Ceiba Web Server	<a href="http://ceiba.ntu.edu.tw/1042Prog5171">http://ceiba.ntu.edu.tw/1042Prog5171</a>	
Table of Core Capabilities and Curriculum Planning	Association has not been established	
Course Syllabus		
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Course Description	本課程內容涵蓋細胞內訊息分子的介紹、作用機制、參與途徑及其調控的細胞功能和生物反應。這些細胞訊息傳遞在生物內具專一性及/或共通性。因此，從動物細胞組織、植物到微生物內的重要途徑都將舉例介紹。同時，課程將以上課和主題討論的方式，並同時與日本京都大學進行即時視訊教學、討論；但以台大為主撥學校。以期增進國際學習交流和互動。全程將以英文上課。	
Course Objective	課程將以上課和主題討論的方式與日本京都大學即時視訊進行。以期增進國際學習交流和互動。全程以英文上課並且有機會實際前往日本京都大學進行學術交流。	
Course Requirement	對於細胞有興趣者及想瞭解基本訊息傳遞和反應者。	
Office Hours		
References	Molecular Cell Biology by Lodish et al (4th edition) (Freeman)	
Designated reading	待補	
Grading		
Progress		
Week	Date	Topic
第1週	2/26	Course organization in NTU

第2週		No class in KU, UT
第3週		No class in KU, UT
第4週		No class in KU, UT
第5週		No class in KU, UT
第6週		No class in NTU
第7週	4/8	Course organization/ Microscopy and Central dogma/Protein conformation, dynamics and enzymology&#9130;Kunio Takeyatu
第8週	4/15	Transcription &#9130;Feng-Ting Huang (NTU)
第9週	4/22	Cellular responses and adaptation to environmental factors (I) --- Development &#9130;Chun-Che Chang (NTU)
第10週		No class in KU
第11週	5/6	Regulation of gene expression --- Small RNA mediated gene silencing in animals&#9130;Chia-Ying Chu (NTU)
第12週	5/13	Signaling transduction&#9130;Jeff Lee (NTU)
第13週	5/20	The future of model organisms in human disease research and introduction to human genetics&#9130;Tadashi Uemura (KU)
第14週	5/27	Cellular responses and adaptation to environmental factors (II) --- Cell migration&#9130;Mineko Kengaku (KU)
第15週	6/3	Cellular responses and adaptation to environmental factors (III) --- Cell death&#9130;Shin Yonehara (KU)
第16週		No class in NTU (Holiday)
第17週	6/17	Regulation of gene expression (I) --- Transcriptional controls&#9130;Akira Kakizuka (KU)
第18週		Final examination (No class in NTU)