

國立陽明大學 九十九學年 第二學期 生物藥學研究所 授課進度表

生物藥學特論 II (Advanced biomaceutical science II): 2 學分 2011 Organizer: Dr.吳榮燦

100/02/10 Ver. I

2/22	Chemotherapy of neoplastic disease.	(Dr.吳榮燦)
3/01	Antiviral drugs.	(Dr.柯順龍)
3/08	Antiinflammatory drugs.	(Dr.吳榮燦)
3/15	Autonomic drugs and Psychopharmacologicals.	(Dr.吳榮燦)
3/22	Central nerve system depressants & stimulant.	(Dr.林滿玉)
3/29	Anti-microbial agents.	(Dr.柯順龍)
4/12	Ophthalmic drug discovery	(Dr.吳榮燦)
4/19	Cardiovascular drugs(下午 3:30-5:20)	(Dr.林幸榮)
4/23	Middle term open book test	(Dr.吳榮燦)
4/26	Drug therapy of the metabolic syndrome	(Dr.吳榮燦)
5/03	Plant tissue culture.	(Dr.蔡新聲)
5/10	Blood preparation and its substitutes.	(Dr.吳榮燦)
5/17	Drugs for immune disorders	(Dr.柯順龍)
5/24	Vaccine development.	(Dr.吳榮燦)
5/31	Regulation of clinical trials.	(Dr.黃文鴻)
6/07	Development strategies in health care industry.	(Dr.黃文鴻)
6/14	Design of clinical trials	(Dr.陳如如)
6/21	Drug development and drug approvals.	(Dr.吳榮燦)
6/25	Final term open book test	(Dr.吳榮燦)

上課時間：每星期（二）上午 10:10~12:00

上課地點：傳醫乙棟一樓 生物藥學所階梯教室

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有機化學特論(Advances Organic Chemistry) Spring2011 Organizer: Dr.蕭崇瑋

<u>Date</u>	<u>Topic</u>
1. 2/23	Chemical bonding and structure
2. 3/2	Principles of stereochemistry
3. 3/9	Conformational , steric, and stereoelectronic effects
4. 3/16	Organic reaction mechanisms
5. 3/23	Nucleophilic substitution I
6. 3/30	Nucleophilic substitution II
7. 4/13	Polar addition and elimination reactions I
8. 4/20	Midterm exam
9. 4/27	Polar addition and elimination reactions II
10. 5/4	Carbonions and other Nucleophilic carbon species I
11. 5/11	Carbonions and other Nucleophilic carbon species II
12. 5/18	Reaction of carbonyl compounds I
13. 5/25	Reaction of carbonyl compounds II
14. 6/1	Aromaticity and aromatic substitution I
15. 6/8	Aromaticity and aromatic substitution II
16.6/15	Concerted pericyclic reactions
17.6/22	Final exam

上課時間：Wednesday 1:30 to 3:20

上課地點：傳乙大樓一樓階梯教室

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醫藥化學(II) Medicinal Chemistry(II) Spring 2011 Organizer: Dr.蕭崇瑋

<u>Date</u>	<u>Topic</u>	<u>Lecturer</u>
1. 2/22	Antiviral agents	Dr. 柯順龍
2. 3/01	Antiliproteinemics & inhibitors of cholesterol biosynthesis	Dr. 吳榮燦
3. 3/08	Antiseizure and antipsychotic drugs	Dr. 忻凌偉
4. 3/15	Cardiac agents & diuretics	Dr. 柯順龍
5. 3/22	Opioid analgesics & related drugs of abuse	Dr. 蕭崇瑋
6. 3/29	Antithrombotics, thrombolytics, coagulants & plasma extenders	Dr. 蕭永基
7. 4/12	ACE inhibitors & calcium blockers	Dr. 柯順龍
8. 4/19	Central & peripheral sympatholytics and vasodilators	Dr. 嚴錦城
9. 4/26	Mid-term examination	Dr. 蕭崇瑋
10. 5/03	Adrenocorticoids	Dr. 蘇 瑤
11. 5/10	Insulin & oral hypoglycemic drugs	Dr. 吳榮燦
12. 5/17	Antiparkinsonian & spasmolytic agents	Dr. 林滿玉
13. 5/24	Estrogen, progestins & androgens	Dr. 蕭崇瑋
14. 5/31	Thyroid drugs & calcium homeostasis(2:30~4:30pm)	Dr. 郭清輝
15. 6/07	Antihistamines & related antiallergic & antiulcer agents	Dr. 林蔚靖
16. 6/14	Antifungal & antimycobacterial agents	Dr. 柯順龍
17. 6/21	Final examination	Dr. 蕭崇瑋

時間：Tuesday. 1:30 to 3:20 P.M.

地點：1F 階梯教室

Textbook：Foye's Principle of Medicinal Chemistry 6th Ed (2008). Williams D.A & Lemke T.L.

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蛋白質生化學 (Protein Biochemistry) 2 學分 2011 Organizer: Dr.林蔚靖

<u>Date</u>	<u>Topic</u>	<u>Lecturer</u>
2/21	1. Mechanisms of Enzyme Action	Dr.蕭崇瑋
2/28	2. Control of Enzymatic Activity	Dr.蕭崇瑋
3/07	3. Protein-nucleic Acid Interactions (I)	Dr.林敬哲
3/14	4. Protein-nucleic Acid Interactions (II)	Dr.林敬哲
3/21	5. Protein Structure and Function (I)	Dr.林蔚靖
3/28	6. Protein Structure and Function (II)	Dr.林蔚靖
4/11	7. Protein Structure and Function (III)	Dr.林蔚靖
4/18	8. Protein Structure and Function (IV)	Dr.林蔚靖
	<u>Midterm examination (Lectures 1-8 考試時間:10am~1pm)</u>	Dr.林蔚靖
4/25	9. Protein-Protein Interaction	Dr.林蔚靖
5/02	10. Glycobiology (I)	Dr.吳明道
5/09	11. Glycobiology (II)	Dr.吳明道
5/16	12. Posttranslational Modification (I)	Dr.林蔚靖
5/23	13. Posttranslational Modification (II)	Dr.林蔚靖
5/30	14. Protein Folding	Dr.周記源
6/13	15. Protein Degradation	Dr.黃奇英
6/20	16. Strategies for Protein Stabilization	Dr.吳榮燦
	<u>Final examination</u>	Dr.林蔚靖

時間：每星期一(Mon.) 10:10am - 12:00pm

地點：傳乙大樓一樓階梯教室

聯絡人：林蔚靖老師(Tel : 02-2826-7257 ; Fax : 02-2825-0883)

Email: wjlin@ym.edu.tw

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病毒學(Fundamental Virology) Spring 2011 1 學分 Organizer:柯順龍

Date	Topic	Instructor
2/2	Introduction	Dr. 蘇 瑀
3/07	Virus attachment and entry	Dr. 蘇 瑀
3/14	Replication of viral genome	Dr. 柯順龍
3/21	DNA animal viruses I: Herpes viruses	Dr. 陳紀如
3/28	Virus assembly	Dr. 柯順龍
4/11	RNA animal viruses	Dr. 陳美如
4/18	Viruses and cancer	Dr. 柯順龍
4/25	DNA animal viruses II: adenovirus and SV40	Dr. 王萬波
5/02	Final Examination	Dr. 柯順龍

時間：星期一 PM 1:30 - 3:20

地點：生藥所一樓階梯教室

Textbook: Introduction to modern virology 5th Ed. by N.J. Dimmock, A.J. Easton, K.N. Leppard

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細胞生物學 (Cell Biology) Spring 2011 2 學分

Organizer: Dr.林敬哲

<u>Date</u>	<u>Topic</u>	<u>Lecturer</u>
2/23	Membrane Structure	Dr.柯順龍
3/02	Membrane Transport and the Electrical Properties	Dr.柯順龍
3/09	Intracellular Compartments and Protein Sorting	Dr.林蔚靖
3/16	Intracellular Vesicular Traffic I	Dr.林蔚靖
3/23	Intracellular Vesicular Traffic II	Dr.林蔚靖
3/30	Mitochondria: Energy Conversion and Apoptosis	Dr.林蔚靖
4/06	Chromosomal behavior	Dr.林敬哲
4/13	<u>Middle term examination</u>	Dr.林敬哲
4/20	Cytoskeleton-microtubules	Dr.蘇 瑤
4/27	Cytoskeleton-intermediate filaments and microfilaments	Dr.蘇 瑤
5/04	Cell Junctions, Cell Adhesion, and the Extracellular Matrix	Dr.柯順龍
5/11	Mechanisms of Cell Communication	Dr.林蔚靖
5/18	Specialized Tissues, Stem Cells, and Tissue Renewal	Dr.柯順龍
5/25	The Cell Cycle	Dr.黃奇英
6/01	Nucleus	Dr.李曉暉
6/08	<u>Final examination</u>	Dr.林敬哲

- Textbook: Molecular Biology of the Cell, 5th ed. Julian Lewis, Martin Raff, Keith Roberts, Alexander Johnson, Peter Walter, Bruce Alberts. 2008, Garland pub. Inc.
- 時間: 每星期三 AM 10:10 - 12:00
- 地點: 傳乙大樓一樓階梯教室

國立陽明大學 生物藥學研究所 九十九學年度 第二學期
Seminar Schedule 【英文】

◎時間：星期三：PM 3：30~5:20 ◎地點：傳統醫學大樓二樓 201 室

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>	<u>Instructor</u>
03/09	唐美娟	Mitochondrial Gene Replacement in Primate Offspring and Embryonic Stem Cells <i>Nature 461, 367, 2009</i>	Dr. 蘇 瑀
03/16	徐培倫	Direct Reprogramming of Fibroblasts into Functional Cardiomyocytes by Defined Factors <i>Cell 142,375,2010</i>	Dr. 吳榮燦
03/23	翁靖傑	Paternally Induced Transgenerational Environmental Reprogramming of Metabolic Gene Expression in Mammals <i>Cell 143,1084,2010</i>	Dr. 蘇 瑀
03/30	尤泰元	Transcription termination maintains chromosome integrity <i>PNAS, Published online before print December 23, 2010</i>	Dr. 林敬哲
04/13	朱思遠	Short Telomeres and Stem Cell Exhaustion Model Duchenne Muscular Dystrophy in mdx/mTR Mice <i>Cell 143,1059,2010</i>	Dr. 蘇 瑀
04/20		期中考週	
04/27	華尉愷	Direct conversion of human fibroblasts to multilineage blood progenitors <i>Nature 468,521,2010</i>	Dr. 林蔚靖
05/04	邱奕穎	Driving the cell cycle with a minimal CDK control network <i>Nature 468,1074,2010</i>	Dr. 林照雄
05/11	連怡佳	Hypothalamic AMPK and fatty acid metabolism mediate thyroid regulation of energy balance <i>Nature medicine 16,1001,2010</i>	Dr. 吳榮燦
05/18	唐美娟	A Chromatin-Mediated Reversible Drug-Tolerant State in Cancer Cell Subpopulations <i>Cell 141,69,2010</i>	Dr. 蘇 瑀
05/25	王安民	A genetic defect in exportin-5 traps precursor microRNAs in the nucleus of cancer cells <i>Cancer Cell 18,295,2010</i>	Dr. 林敬哲
06/01	林穎正	Essential Role of Coiled Coils FOR Aggregation and Activity of Q/N-Rich Prions and PolyQ Proteins <i>Cell 143,1121,2010</i>	Dr. 吳榮燦

**國立陽明大學 生藥所 九十九學年度 第二學期
Seminar Schedule**

◎ 時間：每星期二：AM 8:30 星期四：PM 12:30 ◎ 地點：傳統醫學大樓一樓階梯教室

<u>Date</u>	<u>Speaker</u>	<u>Topic</u>	<u>Instructor</u>	<u>Modulator</u>
03/08(二)	許偉祥	Long noncoding RNAs with enhancer-like function in human cells <i>Cell 143, 46, 2010</i>	Dr. 黃奇英	翁靖傑
03/10(四)	劉峻宇	Recombinant Human Erythropoietin Antagonizes Trastuzumab Treatment of Breast Cancer Cells via Jak2-Mediated Src Activation and PTEN Inactivation <i>Cancer Cell 18,423,2010</i>	Dr. 蕭崇瑋	林穎正
03/15(二)	蘇溶真	Wnt Signaling Requires Sequestration of Glycogen Synthase Kinase 3 inside Multivesicular Endosomes <i>Cell 143,1136,2010</i>	Dr. 蕭崇瑋	陳俐廷
03/17(四)	陳若昕	Essential Role of the Histone Methyltransferase G9a in Cocaine-induced Plasticity <i>Science 327,213,2010</i>	Dr. 林蔚靖	華尉愷
03/22(二)	馬瓊中	PML Regulates Apoptosis at Endoplasmic Reticulum by Modulating Calcium Release <i>Science 330,1247,2010</i>	Dr. 李德章	連怡佳
03/24(四)	王經閔	Regulation of Peptidoglycan Synthesis by Outer-Membrane Proteins <i>Cell 143,1097,2010</i>	Dr. 林敬哲	尤泰元
03/29(二)	羅惠文	Termination of autophagy and reformation of lysosomes regulated by mTOR <i>Nature 465,942,2010</i>	Dr. 林敬哲	黃怡鳳
03/31(四)	莊凱嶠 d	Alleviating Cancer Drug Toxicity by Inhibiting a Bacterial Enzyme <i>Science 330,831,2010</i>	Dr. 吳榮燦	徐培倫
04/07(四)	黃瀟瑩 d	Tumor cell-specific bioluminescence platform to identify stroma-induced changes to anticancer drug activity <i>Nature medicine 16,483,2010</i>	Dr. 吳榮燦	陳俐廷
04/12(二)	鮑冠全	A Synthetic Lethal Interaction between K-Ras Oncogenes and Cdk4 Unveils a Therapeutic Strategy for Non-small Cell Lung Carcinoma <i>Cancer Cell 18,63,2010</i>	Dr. 蕭崇瑋	翁靖傑
04/14(四)	莊友均 d	Glucose and Weight Control in Mice with a Designed Ghrelin O-Acyltransferase Inhibitor <i>Science 330,1689,2010</i>	Dr. 吳榮燦	林穎正
04/19(二)		期中考週		
04/21(四)		期中考週		

04/26(二)	林靜雯	Fast Vesicle Fusion in Living Cells Requires at Least Three SNARE Complexes <i>Science 330,502,2010</i>	Dr. 林蔚靖	華尉愷
04/28(四)	薛曼君 d	A small-molecule scaffold induces autophagy in primary neurons and protects against toxicity in a Huntington disease model <i>PNAS 107,16982,2010</i>	Dr. 吳榮燦	徐培倫
05/03(二)	錢怡潔	Upf1 ATPase-Dependent mRNP Disassembly Is Required for Completion of Nonsense-Mediated mRNA Decay <i>Cell 143,938,2010</i>	Dr. 林敬哲	尤泰元
05/05(四)	張容華 d	Spiroindolones, a Potent Compound Class for the Treatment of Malaria <i>Science 329,1175,2010</i>	Dr. 蕭崇璋	陳俐廷
05/10(二)	林宗哲	Collective cell migration requires suppression of actomyosin at cell-cell contacts mediated by DDR1 and the cell polarity regulators Par3 and Par6 <i>Nature cell biology 13,49,2011</i>	Dr. 林蔚靖	朱思遠
05/12(四)	賴子玄 d	Treatment of cerebral ischemia by disrupting ischemia-induced interaction of nNOS with PSD-95 <i>Nature medicine 16,1439,2010</i>	Dr. 蕭永基	徐培倫
05/17(二)	謝宗翰	Reprogramming Cellular Behavior with RNA Controllers Responsive to Endogenous Proteins <i>Science 330,1251,2010</i>	Dr. 吳榮燦	連怡佳
05/19(四)	謝錫賢**	Covalent histone modifications-miswritten, misinterpreted and mis-erased in human cancers <i>Nature Reviews Cancer 10, 457, 2010</i>	Dr. 林敬哲	
05/24(二)	羅盛男 d	Pharmacological inhibition of EGFR signaling enhances G-CSF-induced hematopoietic stem cell mobilization <i>Nature Medicine 16,1141,2010</i>	Dr. 翁芸芳	翁靖傑
05/26(四)	曾才騰*	Targeting mitochondria for cancer therapy <i>Nature Reviews Drug Discovery 9, 447, 2010</i>	Dr. 吳榮燦	
05/31(二)	莊喬琪	ATR-X Syndrome Protein Targets Tandem Repeats and Influences Allele-Specific Expression in a Size-Dependent Manner <i>Cell 143,367,2010</i>	Dr. 林敬哲	黃怡鳳
06/03(五) 13:30	陳季緯*	Cartilage tumours and bone development: molecular pathology and possible therapeutic targets <i>Nature Reviews Cancer 10, 481, 2010</i>	Dr. 李德章	
06/07(二)	劉依蓁 d	An Autophagy-Enhancing Drug Promotes Degradation of Mutant α 1-Antitrypsin Z and Reduces Hepatic Fibrosis <i>Science 329,229,2010</i>	Dr. 吳榮燦	尤泰元

註：*：博士班資格考

**：博士班(預)資格考

d：drug development related paper

生物資源特論 Lecture schedule for Special Topics on Bioresources (1 credit) (AM 9:00- 12:00)

Organizer :Dr.Rong-Tsun Wu

06/27	Introduction of the BRC Cell Bank	Dr. Yukio Nakamura Dr. Takahiro Doi Dr. Hiroyuki Miyoshi
06/28	The mouse resources for the biomedical research (1) The mouse resources for the biomedical research (2) The mouse resources for the biomedical research (3) -Genetics in wild mice	Dr. Atsushi Yoshiki Dr. Atsushi Yoshiki Dr. Kazuo Moriwaki
06/29	Manipulation of mouse embryos and germ cells(1) Genetic engineering of mice	Dr. Atsuo Ogura Dr. Kuniya Abe
06/30	Introduction of the Mouse Clinic (phenotype analysis)	Dr. Shigeharu Wakana
07/01	Introduction of Plant tissue culture Introduction of bioresource information	Dr. Masatomo Kobayashi Dr. Kaoru Fukami
07/02	Examination	Dr. Rong-Tsun Wu

生物資源實驗方法 Schedule for Research Methods on Bioresources (1 credit) (PM 1:00- 7:00)

06/27	Laboratory tour (Cell Bank and laboratories)	Dr. Yukio Nakamura
06/28	Spontaneous and induced mutant mice. How to examine the genotype and phenotype? 1.PCR genotyping of the mutation. 2.Observation of various phenotypes of the mutant mice. 3.Discussion on the results.	Dr. Atsushi Yoshiki
06/29	In vitro fertilization of mice – From gamete collection to examination of fertilized eggs	Dr. Atsuo Ogura
06/30	Introduction of the Mouse Clinic (phenotype analysis experiments)	Dr. Shigeharu Wakana
07/01	Introduction of plant tissue culture (laboratory tours and experiments) Management of bioresource databases analysis Dissemination of bioresource information through the databases and their search engines (laboratory tours and experiments)	Dr. Masatomo Kobayashi Dr. Kaoru Fukami
07/02	Examination	Dr.Rong-Tsun Wu

國立陽明大學九十九學年度第二學期授課進度表

科目名稱：分子模擬的概論與應用

(科目代號：)

學分數：2

時間：每週三 13:30~15:20

地點：圖資大樓 403 室

授課系級：基科所等

授課教師：許世宜

聯絡電話：2826-7233

週次	日期	講 題	時 數	教師姓名(中文)
1	2/23	分子模擬介紹	2	許世宜
2	3/2	網路資料庫	2	許世宜
3	3/9	量子力學應用在分子結構	2	許世宜
4	3/16	分子力學與作用力場	2	許世宜
5	3/23	作用位能面	2	許世宜
6	3/30	能量最佳化的運算法	2	許世宜
7	4/6	校際活動週		
8	4/13	統計力學概論	2	許世宜
9	4/20	電腦模擬方法	2	許世宜
10	4/27	分子動力學模擬方法	2	許世宜
11	5/4	分子動力學運算法	2	許世宜
12	5/11	蒙地卡羅模擬方法	2	許世宜
13	5/18	分子模擬應用	2	許世宜
14	5/25	藥物設計應用	2	許世宜
15	6/1	水上運動會		
16	6/8	分子模擬模組操作一	2	許世宜
17	6/15	分子模擬模組操作二	2	許世宜
18	6/22	期末考試	2	許世宜

教科書名：1. Molecular modeling: Principles and Applications (Andrew R. Leach).

作 者：1. Andrew R. Leach

出版社：