

LSMC 5353

100 學年度第一學期

細菌毒素研究

教師：王雯靜時間：星期二 9:00am ~12:00pm

地點：生科二館 526 室

第 週	日期	Topics
1	9/13	Introduction
2	9/20	Molecular Pathogenesis: Microbial virulence factors
3	9/27	Helicobacter pylori
4	10/4	Cytotoxin-associated antigen (CagA)
5	10/11	Vacuolating toxin (VacA)
6	10/18	AB-type toxins and pore-forming toxins <a href="#">Special articles discussion Cycle I</a> : 王雯靜老師
7	10/25	Bacillus anthracis & Anthrax toxin Bordetella pertussis & Pertussis toxin Corynebacterium diphtheriae & diphtheria toxin <a href="#">Special articles discussion Cycle I</a> : 劉靜
8	11/1	Escherichia coli & heat-labile toxin, verotoxin Shigella dysenteriae & shiga toxin Vibrio cholerae & cholera toxin <a href="#">Special articles discussion Cycle I</a> : 周昆俞
9	11/8	期中考 <a href="#">Special articles discussion Cycle I</a> : 陳仲勤
10	11/15	Clostridium tetani & tetanus toxin Clostridium botulinum & botulinum toxin <a href="#">Special articles discussion Cycle I</a> : 林均璞
11	11/22	Campylobacter jejuni & cytolethal distending toxin <a href="#">Special articles discussion Cycle I</a> : 周仕堃
12	12/29	Pathogen-cell interaction <a href="#">Special articles discussion Cycle II</a> : 王雯靜老師
13	12/6	Phylogenetic perspectives in innate immunity <a href="#">Special articles discussion Cycle II</a> : 劉靜
14	12/13	Secretion machines <a href="#">Special articles discussion Cycle II</a> : 周昆俞
15	12/20	Recent topics on bacterial virulence I <a href="#">Special articles discussion Cycle II</a> : 陳仲勤
16	12/27	Recent topics on bacterial virulence II <a href="#">Special articles discussion Cycle II</a> : 林均璞

17	1/3	Recent topics on bacterial virulence III <a href="#">Special articles discussion Cycle II</a> : 周仕堃
18	1/10	期末考

參考書本:

1. Murray, P. R., Kobayashi, G. S., Pfaller, M. A. & Tenover, K. C. (1994). Medical Microbiology. Wolfe.
2. Alouf, J. E. and Freer, J. H. (1999). Bacterial protein toxins. Academic Press.
3. Evans, A. S. and Brachman, P. S. (1998). Bacterial Infections of Humans. Epidemiology and Control. Plenum Medical  
[http://www.youtube.com/watch?v=9A1\\_BberZ8w&feature=related](http://www.youtube.com/watch?v=9A1_BberZ8w&feature=related)

Literature search:

Discovery  
 Underlying mechanisms  
 Translational medicine  
 Ignorance → knowledge  
 Epigenetic regulation in infection/cancer  
 Epigenetic modifiers: demethylases, methyltransferases, sumoylases, acetylases, ubiquitinases  
 Relationship of Hp virulence factors and modifiers

Template articles: Hp, gastric cancers, carcinogenesis

Observation  
 Make a hypothesis  
 Research design  
 Preliminary results  
 Discussion  
 Future aspects

Two cycles: Teacher 1, students later

Thesis:

Title/proposal  
 Background and significance  
 Preliminary results  
 Research design  
 Difficulties  
 Budget  
 References