

		<b>from chicken hatcheries</b>		
CM-09	P.44	探討克雷白氏肺炎桿菌中活化態以及非活化態的KvhA其點突變在RpoS-KvhA-YfiD抗酸途徑能力上的影響	吳文浩	中國醫藥大學
CM-10	P.45	探討 CRP-cAMP 訊息傳遞路徑對於克雷白氏肺炎桿菌中荚膜多糖體生成上的調控角色	洪義閔	中國醫藥大學
CM-11	P.46	Mechanism of <i>Vibrio vulnificus</i> RTX-mediated antiphagocytosis in macrophage	陳俊良	成功大學
CM-12	P.47	Inhibition of endocarditis-inducing streptococcal biofilm formation by synthetic small molecules	陳宜婷	台灣大學微生物所
CM-13	P.48	Methylation of hybrid sensor kinase RsbK inactivates $\sigma^B$ through interference of RsbK dimerization in <i>Bacillus cereus</i>	林孝武	高雄師範大學
CM-14	P.49	A Hpr-like protein BC1009 involves in $\sigma^B$ regulation in <i>Bacillus cereus</i>	柯沐禪	高雄師範大學
CM-15	P.50	Relationship between the cagA Gene 3' Polymorphisms, vacA and homA/B genotypes of <i>Helicobacter pylori</i> and disease outcome in Taiwan	李如芳	義守大學
CM-16	P.51	Study on the unknown effector for regulating <i>speB</i> expression in culture media of group A streptococcus	陳皓玟	成功大學
CM-17	P.52	Biofilm formation of <i>Acinetobacter baumannii</i> : characteristics of biofilm formation and screening of a transposon insertion library	陳妮靜	慈濟大學
CM-18	P.53	Bacterial flora in gastric biopsy from patients with upper gastrointestinal diseases	余佩珊	義守大學
CM-19	P.54	Regulation of <i>sda1</i> and <i>emm1</i> by PerR in group A streptococcus	王志宏	成功大學
CM-20	P.55	The effects of intracellular calcium induced by <i>Vibrio vulnificus</i> RTX toxin	黃梅子	輔英科技大學
CM-21	P.56	Analysis of core and accessory genomic regions in <i>Escherichia coli</i> strains	王世融	長榮大學
CM-22	P.57	Relationship between the cagA Gene 3' Polymorphisms, vacA and homA/B genotypes of <i>Helicobacter pylori</i> and disease outcome in Taiwan	李如芳	義守大學
CM-23	P.58	Rearrangement of CRISPR Spacers is Correlated with Erythromycin Susceptibility in Group A Streptococcus	鄭伯忻	成功大學
<b>環境微生物 (EM)</b>				
EM-01	P.59	Effect of RfaH on <i>ops</i> -containing genes in <i>Vibrio parahaemolyticus</i>	陳柏均	慈濟大學
EM-02	P.60	Relationship between TTC1138 and promoter in <i>Thermus thermophilus</i> HB27	陳葶	慈濟大學
EM-03	P.61	Functional Analysis of <i>idoB</i> Operon Regulator, IdoR, in <i>Acinetobacter baumannii</i> ACTT 19606	蔡芳偉	慈濟大學
EM-04	P.62	Isolation and characterization of <i>Aeromonas hydrophila</i> phages Ahp17 and Ahp24	王建斌	慈濟大學醫學

**Missing Pieces in *Klebsiella pneumoniae* Genomes**

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*Klebsiella pneumoniae* is an important opportunistic pathogen that infects human. Four *K. pneumoniae* strains, NTUH-K2044, NK8, NK29 and NK245, have been sequenced by whole genome shotgun approach in Taiwan. In short, multiple copies of the genomic DNA are sheared into overlapping DNA fragments, ligated into plasmid vectors and transformed into *E. coli*. While this approach was designed as the first step to generate a complete genomic sequence, it also determined which piece of DNA can be cloned into *E. coli* and which cannot. The fragments that cannot be cloned into *E. coli* will result in gaps in the initial shotgun assembly. We investigated the whole genome shotgun reads to find the common gaps in the initial shotgun assemblies of the four *K. pneumoniae* genomes. Therefore we clone those genes on the common gaps and observe the growth curve after inducing their expression. In this study, our aim is to discover unknown cytotoxic genes, small RNAs and genes that potentially inhibit *E. coli* gr

