

ISOLATION AND IDENTIFICATION OF  
*Pasteurella multocida* FROM CATS ORAL CAVITY

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Isolation and Identification of *Pasteurella multocida*  
from Cats Oral Cavity

By

Tan Lip Pien

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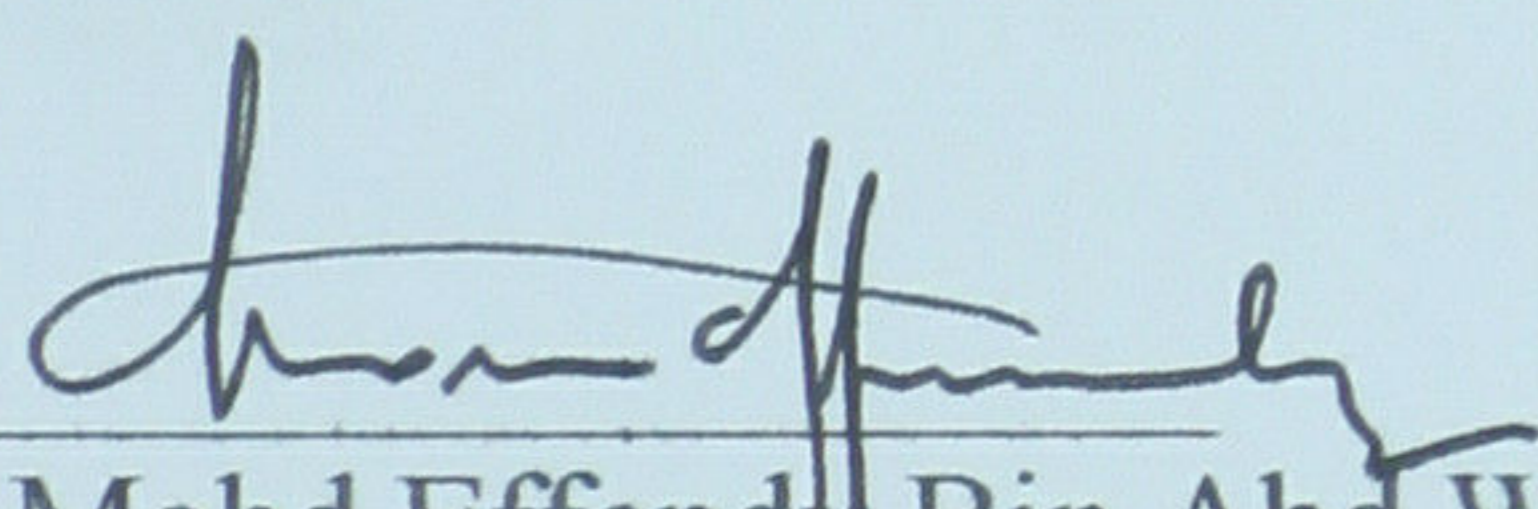
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**APPROVAL AND CERTIFICATION FORM**

I certify that the report of this final year project entitle 'Isolation and Identification of *Pasteurella multocida* from Cats Oral Cavity' by TAN LIP PIEN no. UK4112 have been read and all the alteration and recommendation by Examiner have been done. This thesis submitted to Department of Biological Sciences, have been accepted as fulfillment of the requirement for degree of Sarjana Muda in Management and Conservation of Biodiversity in Faculty of Science and Technology, University College Science and Technology Malaysia (KUSTEM).

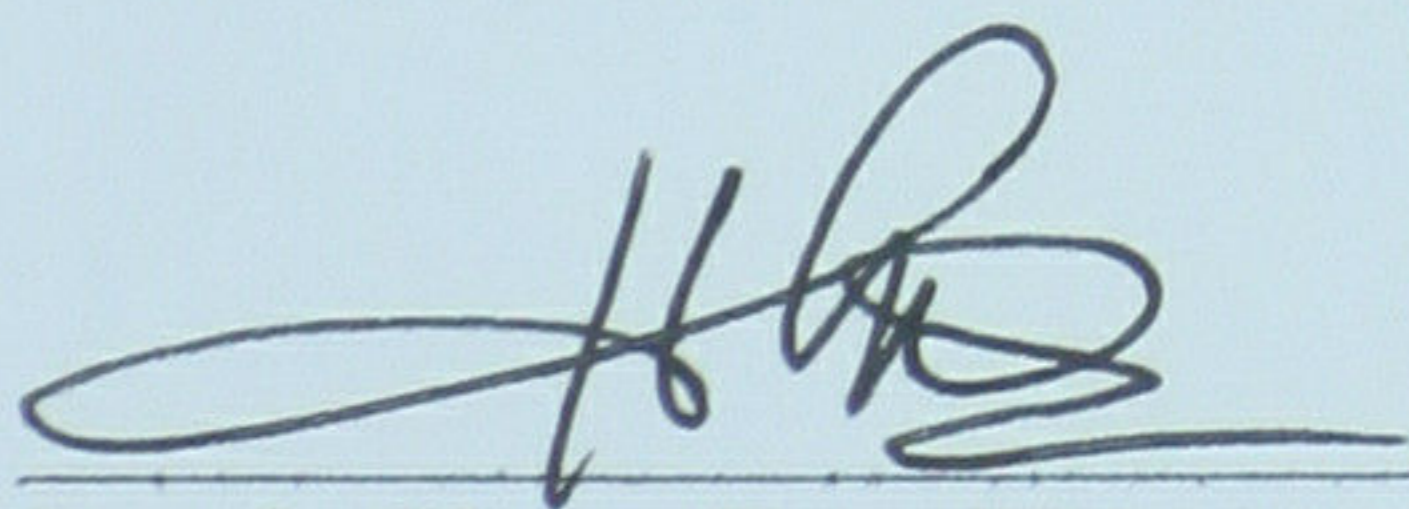
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## Abstrak

*Pasteurella multocida* merupakan patogen yang amat penting kepada manusia dan bidang veterinar. *P. multocida* boleh menyebabkan beberapa jenis jangkitan yang membahayakan akibat daripada digigit atau dicalar haiwan. Luka akibat digigit kucing merupakan salah satu pekara yang paling banyak dijumpai di hospital manusia dan klinik haiwan. 37 *P. multocida* berjaya dikumpul dan dikenali menggunakan langkah kerja piawai. Semua *P. multocida* yang diperolehi menjalani ujian rangsangan antibakteria dengan menggunakan sembilan jenis agen antibakteria yang biasa digunakan. Daripada sembilan jenis agen antibakteria yang digunakan, enam (Erythromycin, Ampicilline, Chloramphenical, Polymyxin B, Cephalothin and Kanamycin) didapati berkesan untuk membanteras pertumbuhan *P. multocida*. Bacteria ini menunjukkan rintangan yang tertinggi terhadap Bacitracin. Ia juga menunjukkan rintangan terhadap Gentamicin dan Tetracycline. Terdapat beberapa cara bacteria memperoleh rintangan terhadap antibiotik. Kebanyakan rintangan terhadap antibiotik pada bacteria enterick disebabkan oleh penyebaran luas plasmid rintangan dari spesies yang sama dan juga dari spesies dan genera yang berbeza.

## Abstract

*Pasteurella multocida* is an important veterinary and opportunistic human pathogen. *Pasteurella multocida* can cause several human infections mostly as a consequence of animal-bites and scratch wounds. Cat bite infections are one of the most common diseases presented to veterinary practices and to emergency rooms at human hospitals. 37 isolates of *Pasteurella multocida* recovered were identified using standard procedures. All isolates underwent antimicrobial sensitivity test using nine types of commonly used antimicrobial agents. Of the nine antimicrobial agents used, six (Erythromycin, Ampicilline, Chloramphenical, Polymyxin B, Cephalothin and Kanamycin) were found to be effective in inhibiting the growth of *Pasteurella multocida*. This bacterium shows highest resistance to Bacitracin. It also shows resistance to Gentamicin and Tetracycline. There are various ways by which bacteria may gain resistance to antibiotics. Most antibiotic resistance in enteric bacteria is attributable to the widespread transmission of resistance plasmid from the same species and also other species and genera.