



Undergraduate Research, Innovation and Cooperative Education
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Faculty of Science, Chiang Mai University

Title : Identification of Disease Resistance Gene
in Rice Genome Using Computational Model

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Type of presentation*
(choose 1) :

**Oral
Presentation**

(เฉพาะ ตัวแทนศ.ที่สาขาเลือกให้นำเสนอ
แบบบรรยาย)

Poster

(กรณี นำเสนอผลงานปัญหาพิเศษ/การ
ค้นคว้าอิสระ)

**Cooperative
Education**

(กรณี นำเสนอผลงานสหกิจศึกษา)

ABSTRACT

Rice blast, caused by *Magnaporthe oryzae*, is a major threat to global rice production. This study aims to develop a machine learning model to predict rice blast resistance using genomic data. By leveraging variant annotation tools like annoVar.

we extract and preprocess genetic features from rice germplasm, these feature features are then used to train and evaluate predictive models that classify variants as 'weak' or 'robust' in relation to blast resistance.

The resulting model provides a data-driven approach for identifying key genetic markers, aiding in precision breeding & resistance management strategies.