
PERPUSTAKAAN HAMDAN TAHIR
UNIVERSITI SAINS MALAYSIA

RUKUN

UNIVERSITI SAINS MALAYSIA
GERAN PENYELIDIKAN UNIVERSITI PENYELIDIKAN
LAPORAN AKHIR

**MOLECULAR MECHANISM OF THE ACTIN-ASSOCIATED
PROTEIN HIP1R ON MALIGNANT B-CELL MIGRATION**

PENYELIDIK

DR. WONG KAH KENG

PENYELIDIK BERSAMA

**PROF. MUSTAFFA MUSA
PROF. GAN SIEW HUA
MS. LOO SUET KEE**

2015



KEMENTERIAN
PENDIDIKAN
MALAYSIA

FINAL REPORT
FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)

Laporan Akhir Skim Geran Penyelidikan Fundamental (FRGS)
Pindaan 1/2015

A RESEARCH TITLE: Molecular Mechanism of the Actin-Associated Protein HIP1R on Malignant B-cell Migration.

PHASE & YEAR: 2, Year 2015

START DATE: 1st June 2012

END DATE: 31st May 2014

EXTENSION PERIOD (DATE): RMC LEVEL: 30th November 2014

KPM LEVEL: -

PROJECT LEADER: Wong Kah Keng

I/C / PASSPORT NUMBER: 830808-14-5513

PROJECT MEMBERS: 1. Prof. Mustaffa Musa
(including GRA) 2. Prof. Gan Siew Hua
3. Ms. Loo Suet Kee (student)

PROJECT ACHIEVEMENT (Prestasi/Projek)

ACHIEVEMENT PERCENTAGE			
Project progress according to milestones achieved up to this period	0 - 50%	51 - 75%	76 - 100%
Percentage (please state #%)	100%	100%	95%
RESEARCH OUTPUT			
Number of articles/ manuscripts/ books (Please attach the First Page of Publication)	Indexed Journal	Non-Indexed Journal	
	1 (Impact factor: 9.379)	-	
Conference Proceeding (Please attach the First Page of Publication)	International	National	
	-	-	
Intellectual Property (Please specify)	-		


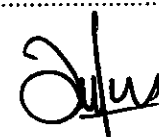
HUMAN CAPITAL DEVELOPMENT					
Human Capital	Number				Others (please specify)
	On-going		Graduated		
Citizen	Malaysian	Non Malaysian	Malaysian	Non Malaysian	
No. PHD STUDENT	1	-	-	-	
Student Fullname: IC / Passport No: Student ID:	Loo Suet Kee 871002-35-5344 P-UD0006/13(R)	-	-	-	
No. MASTER STUDENT	-	-	-	-	
Student Fullname: IC / Passport No: Student ID:	-	-	-	-	
No. UNDERGRADUATE STUDENT	-	-	-	-	
Student Fullname: IC / Passport No: Student ID:	-	-	-	-	
Total	1 (PhD)	-	-	-	

EXPENDITURE (Perbelanjaan) as Borang K1 (RMC)

C Budget Approved (Peruntukan diluluskan) : RM 125,000
Amount Spent (Jumlah Perbelanjaan) : RM 125,000
Balance (Baki) : RM 0
Percentage of Amount Spent : 100%
(Peratusan Belanja)

ADDITIONAL RESEARCH ACTIVITIES THAT CONTRIBUTE TOWARDS DEVELOPING SOFT AND HARD SKILLS
(Aktiviti Penyelidikan Sampingan yang menyumbang kepada pembangunan kemahiran insaniah)

International		
Activity	Date (Month, Year)	Organizer
(e.g : Course/ Seminar/ Symposium/ Conference/ Workshop/ Site Visit)		
National		
Activity	Date (Month, Year)	Organizer
Next Generation Researchers Cancer Symposium (<i>my role: presenter and organiser</i>) (e.g : Course/ Seminar/ Symposium/ Conference/ Workshop/ Site Visit)	19th November 2014	Centre for Research Initiative – Clinical and Health Sciences (CRI-CHS), Health Campus, Universiti Sains Malaysia.

E	PROBLEMS / CONSTRAINTS IF ANY (Masalah/Kekangan sekiranya ada)	
	<p>The first phase of the project (activity no. 1 and no. 2, please refer to the Gantt chart) had been completed, resulting in a paper published in <i>Leukemia</i> (impact factor: 9.379) in early 2014 and acknowledged FRGS, please refer to the evidences submitted together with this report. In the publication, we reported that HIP1R (a putative tumour suppressor) expression was repressed by the transcription factor FOXP1 (an oncoprotein), and their inverse expression pattern conferred worse survival in a series of B-cell lymphoma cases.</p> <p>The next phase of the project (activity no. 3 and no. 4) had been completed mid of last year and drafting of the manuscript is still in progress. The manuscript entitled "Prognostic and subtyping utility of the actin-binding protein HIP1R in diffuse large B-cell lymphoma" will be submitted into the journal <i>British Journal of Haematology</i> (impact factor 4.959), please refer to the first page of the manuscript draft. It will be submitted in late February or early March 2015 and the evidence for the submitted manuscript will be sent to CRI as soon as possible.</p>	
F	RECOMMENDATION (Cadangan Penambahbaikan)	
	<p>To submit the next manuscript entitled " Prognostic and subtyping utility of the actin-binding protein HIP1R in diffuse large B-cell lymphoma" into <i>British Journal of Haematology</i> as soon as possible (by end of Feb or early March 2015).</p>	
G	RESEARCH/ABSTRACT – Not More Than 200 Words (Abstrak Penyelidikan – Tidak Melebihi 200 patah perkataan)	
	<p>In this FRGS project, we aimed to uncover why HIP1R is expressed and how its expression is regulated in diffuse large B-cell lymphoma (DLBCL), an aggressive malignancy and the most common type of non-Hodgkin's lymphoma. We found that HIP1R was expressed at high levels in non-malignant mature B cells, and its expression was maintained in a subtype of DLBCL termed as GCB-DLBCL, the subtype with a better outcome compared to the more aggressive subtype, the ABC-DLBCL. In a patient cohort (n=157), HIP1R expression alone was predictive of outcome in the disease. We demonstrated that HIP1R expression was downregulated by FOXP1, a transcription factor involved as an oncoprotein in the disease, and that their inverse expression pattern conferred worse survival in the patient cohort. HIP1R was the first direct target of FOXP1 uncovered and our findings were published in the journal <i>Leukemia</i> (impact factor 9.379). Finally, we tested the prognostic and subtyping utility of HIP1R in a series of HUSM DLBCL patient cohort (n=73). In this independent series, HIP1R was predictive of survival and its expression was correlated with the GCB-DLBCL subtype, indicating that the molecule is a strong predictive marker in the disease as demonstrated in two independent patient cohort. (word count: 200)</p>	
	<p>Date : 30th Jan 2015 Tarikh</p>	<p>Project Leader's Signature: Tandatangan Ketua Projek </p>
H	COMMENTS, IF ANY/ENDORSEMENT BY RESEARCH MANAGEMENT CENTER (RMC) (Komen, sekiranya ada/ Pengesahan oleh Pusat Pengurusan Penyelidikan)	
	<p>Panggil uida pemantauan.</p> <p>Name: PROF. DR LEE KEAT TEONG Nama: Pengarah Pejabat Pengurusan & Kreativiti Penyelidikan Universiti Sains Malaysia 11800 USM, Pulau Pinang.</p> <p>Date: Tarikh: Signature:  Tandatangan: 10/2/15</p>	