REPORT

Report of the Fellow who availed Fellowship/Training under Human Resource Development for Health Research

1.	Name and designation of Fellow	: Dr.K.Narayanasamy
2.	Address	: 83/33, Patel Road, Perambur Chennai - 600011
3.	Type of Fellowship and period	: Short term fellowship in Indian Institute
4.	Duration of fellowship	: One month, 20 th January 2015 to 19 th February 2015
5.	Frontline area of research in which Training /research was carried out	: Genetics
6.	Name & address of mentor and host instit	tute : Dr.A.K.Munirajan, Professor, Department of Genetics, University of Madras, Taramani Campus, Chennai – 600113.
7.	Highlights of work conducted	:
	i) Technique/expertise acquired (Give in about 150 words)	: Enclosure I
	 Research results, including any p prepared/submitted for publication (Give in about 300 words) 	oapers, on : Enclosure II
	 Proposed utilization of the experimentation in the Parent Institute. (Please sport proposed/ new project) 	rience pecify the project developed whether originally : Original Project titled "Finding of novel genetic markers associated with Non- Alcoholic fatty liver diseases (NAFLD) among South Indian population"
		Signature of Fellow Dr. K. Narayanasamy, MD.,DM Professor & Head Department of Hepatology, Rajiv Gandhi Govt. Gen. Hospital, & Madras Medical College, Chennai-3.

	(To be filled in	by the Fellow)
1.	Name, Designation and Address	: Dr.K.Narayanasamy Professor and Head, Department of Hepatology, Madras Medical College, Chennai - 60003
2.	ICMR Sanction letter No. and date	 1) HRD Fellowship/IV(2)/2014-15, Dated: 09-10-2014. 2) HRD Fellowship/III(I)/2014-15, Dated: 01-12-2014.
3.	Broad area of research	: Life Sciences
4.	Chosen area of training	: Genetics
5.	Name, designation & address	
	of Professor/Mentor of host institute	: Dr.A.K.Munirajan, Professor, Department of Genetics, University of Madras, Taramani Campus, Chennai – 600113
6.	Duration of the trainingtomonths	: One month, 20 January 2015 to 19 February 2015
7.	Details of expenditure on the training	
А	TRAVEL :	
i)	Place of work in India	: Department of Genetics, University of Madras, Taramani Campus, Chennai – 600113
ii)	Port of embarkation with date of depar	ture :
iii)	Port of disembarkation with date of arri	ival :
iv) above	Venue of training if in a city different f	r̀om iii) :
)	Air fare for onward travel to venue by	shortest route :
v)		

B.	Fellowship Rsxmonths	: Rs. 20,000 X 1 month

Total expenditure on Air travel (v + vi)

C. Contingency

vii)

iii) Taxi charges from parent institution to host institution) : Rs. 19,980

D. Total (A to C)

: Rs 39,980

Certificate :

Certified that I have participated in the above training/research programme and the particulars furnished above are correct. I also certify that I have not received any financial assistance from any other source.

Date:

8 Signature

Signature

Name & Address of Fellow : Dr.K.Narayanasamy, Professor and Head, Department of Hepatology, Madras Medical College, Chennai - 60003

Dr. K. Narayanasamy, MD.,DM., Professor & Head Department of Hepatology, Rajiv Gandhi Govt. Gen. Hospital, & Madras Medical College, Chennai-3.

Please attach the following documents:

- 1. Original receipts for items claimed against contingency grant (Item. C).
- Original receipt of Hotel/Guest house accommodation charges to be submitted by Senior Fellows.

Details to be furnished by Fellow

1.	Total grant received	: Rs.39,980	
2.	Sanction Letter no. & date	: 1) HRD Fellowship/IV(2)/2014-15, Dated: 09-10-2014. 2) HRD Fellowship/III(I)/2014-15, Dated: 01-12-2014.	
3.	Total expenditure incurred on of the Fellow	training : Rs. 39,980	
4.	Amount to be released to the concerned Fellow : Rs. 39,980		
5.	Balance (if available) returned/being returned to DHR/ICMR: None		
6.	Utilization certificate in the proforma enclosed:		

Certificate:

Certified that Fellow has been paid grant as sanctioned by ICMR column 2 above for training in India and as per guidelines of the DHR Fellow of HRD scheme.

Signature

Name& Address of Fellow

Dr.K.Narayanasamy Professor and Head, Department of Hepatology, Madras Medical College, Chennai - 60003

Dr. K. Narayanasamy, MD.,DM., Professor & Head Department of Hepatology, Rajiv Gandhi Govt. Gen. Hospital, & Madras Medical College, Chennai-3.

UTILIZATION CERTIFICATE

1.	Title	: HRD Fellowship Sponsored by DHR
2.	Address of the Institution	: Madras Medical College, Chennai - 60003
3.	Name & designation of Fellow	: Dr.K.Narayanasamy Professor and Head, Department of Hepatology, Madras Medical College, Chennai - 60003
4.	DHR/ICMR sanction letter no. & date	 : 1) HRD Fellowship/IV(2)/2014-15, Dated: 09-10-2014. 2) HRD Fellowship/III(I)/2014-15, Dated: 01-12-2014.
5.	Amount that was available for expenditure	: Rs. 39,980
6.	Actual expenditure	: Rs. 39,980
7.	Unspent balance if any	: None
8.	Balance to be reimbursed to the Fellow	: Rs. 39,980

Certified that out of **Rs. 39,980** of grant-in-aid sanctioned during the financial year 2014-2015 in favour of Dr.K.Narayanasamy DHR Fellowship awardee under DHR/ICMR sanction letter No : 1) HRD Fellowship/IV(2)/2014-15, Dated: 09-10-2014, 2) HRD Fellowship/III(I)/2014-15, Dated: 01-12-2014 A sum of **Rs. 39,980** has been utilized for the purpose of research/training India in respect of Dr. K.Narayanasamy. The fellow for which it was sanctioned and that the balance amount of Nil due to the awardee may please be reimbursed.

Date:

formant

Signature of Fellow Dr. K. Narayanasamy, MD.,DM., Professor & Head Department of Hepatology, Rajiv Gandhi Govt. Gen. Hospital, & Madras Medical College, Chennai-3.

Technique/expertise acquired

I) Following essential basic molecular analysis were learned during the fellowship period.

1) Isolation of DNA

In order to understand the DNA isolation procedure, blood samples were collected and DNA was extracted by Phenol - Chloroform - Isoamyl alcohol method (PCI).

2) Agarose Gel Electrophoresis

The isolated Genomic DNA was separated by Agarose Gel Electrophoresis method.

3) DNA quantification Method

DNA was quantified in Nanodrop spectrophotometer. Nanodrop spectrophotometer is commonly used for nucleic acid quantifications.

4) Polymerase Chain Reaction

PCR was carried out for P53 gene and amplified P53 was separated by Agarose Gel Electrophoresis.

5) Restriction Fragment Length polymorphism (RFLP).

RFLP reaction was set up for identification mutation in the P53.

6) Cytogenetics analysis

Karyotyping methods also were studied to analysis chromosomal abnormalities.

II) Advanced molecular techniques such as Genotyping, Real Time PCR were also learned.

RESULTS

Isolation of Genomic DNA from the blood samples by phenol - chloroform - isoamyl alcohol method (PCI):

Blood samples were collected from different subjects and DNA was isolated by Phenol - Chloroform - Isoamyl alcohol method (PCI).

0.7% of agarose gel showing Genomic DNA of 12 subjects:

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POLYMERASE CHAIN REACTION:

The PCR reaction was carried out for P53 gene.

PCR REACTION MIXTURE (30µl):

The polymerase reaction was setup using the following reaction mixture:

Total reaction : 08

Reaction volume : 30µ1

Total number of samples: 07

Non template control : 01

S.No	PCR	Stock	Working	Working	Total volume(µl)
	Composition	concentration	concentration	volume(µl)	Master mix
					(x8)
1	PCR Buffer	10X	1X	3	24
	(15mM Mgcl ₂)				
2	dNTP's	2.5mM	250μΜ	3	24
3	Forward primer	2μΜ	80nM	1.2	9.6
4	Reverse primer	2μΜ	80nM	1.2	9.6
5	Taq polymerase	5U/µl	0.5U/Reaction	0.1	0.8
	enzyme				
6	Distilled water	-	-	20.5	164
7	DNA Template	100ng/µ1	100ng/µ1	1	-
	-	Total		30	232

Master mix : $29 \mu l$ Genomic DNA : $1 \mu l$ Total : $30 \mu l$

GEL ELECTROPHORESIS OF POLYMERASE CHAIN REACTION:

Agarose gel showing PCR product of P53 gene at 342 bp:

7 samples(lane 1-4, 6-8) and Ladder(lane 4)



Agarose gel showing RFLP for P53 gene:



Lane	GENOTYPES	PCR-RFLP Fragment	No. of samples
1	Proline homozygous	342 bp	1
5	Arginine homozygous	210bp, 132bp	1
2,3,4,6,7	Heterozygous	342 bp, 210 bp and 132 bp	5
8	Non template control		
9	100bp ladder		

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Dr. K. Professor Dept. of Mondurary	Havagansang Helatologg Helatologg nelical college a _ 03	Date	12015
Closing Km Starting Km Total Km		Closing Time Starting Time	Hrs Hrs Hrs
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Professor & H Professor & H Department of Hep V Gandhi Govt Ga	PAN :		Driver's Signature