

**CARBOHYDRATE METABOLISM IN MYCOBACTERIA
AND EXPERIMENTAL TUBERCULOSIS**

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CERTIFICATE

Certified that Sri V. Ramakrishna, M.Sc., has completed work on the research problem " Carbohydrate metabolism in Mycobacteria and experimental tuberculosis" under my guidance. He is hereby permitted to submit the thesis under the same title for the Ph.D. Degree of the University of Mysore, Mysore.


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The work embodied in this thesis is original and was conducted at the Department of Biochemistry, Vallabhbhai Patel Chest Institute, University of Delhi, Delhi 110 007 (India). This work has not been submitted in part or in full to this or any other university for any other degree or diploma.

This study makes a contribution towards better understanding of the carbohydrate metabolism in mycobacteria and experimental tuberculosis.



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ABBREVIATIONS.

The following abbreviations have been used in this thesis:

ADP	..	Adenosine 5'-diphosphate
ADPG	..	Adenosine diphosphoglucose
ADP-mannose	..	Adenosine diphosphomannose
ADP-ribose	..	Adenosine diphosphoribose
AMP	..	Adenosine 5'-monophosphate
ATP	..	Adenosine 5'-triphosphate
CDFG	..	Cytidine diphosphoglucose
cpm	..	Counts per minute
DNPH	..	2,4-Dinitrophenylhydrazine
EDTA	..	Ethylenediaminetetra acetate
F-6-P	..	Fructose-6-phosphate
FDP	..	Fructose-1,6-diphosphate
G-1-P	..	Glucose-1-phosphate
G-6-P	..	Glucose-6-phosphate
G-1,6-di-P	..	Glucose-1,6-diphosphate
GDPG	..	Guanosine diphosphoglucose
NAD	..	Nicotine-adenine dinucleotide
NADH	..	Reduced NAD
NADP	..	Nicotine-adenine dinucleotide phosphate
NADPH	..	Reduced NADP
nm	..	Nano meter

PEP .. Phosphoenolpyruvate
Pi .. Orthophosphate
TCA .. Trichloroacetic acid
Tris .. Tris-(hydroxymethyl) aminomethane
UDPG .. Uridine diphosphoglucose

NOMENCLATURE

The recommendations of the International Union of Biochemistry (Report of the Commission on Enzymes of the International Union of Biochemistry, Pergamon Press, Oxford, 1961) have been followed in this thesis. For each enzyme, the systematic name with enzyme commission number are given in parenthesis. Subsequently, the trivial names are used.