

CONTENTS

COVER PAGE	i
RATIFICATION PAGE	ii
STATEMENT PAGE	iii
DEDICATION	iv
PREFACE	v
CONTENTS	vi
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF APPENDICES	x
ABSTRACT	xi
INTISARI	xii
CHAPTER I INTRODUCTION	1
I.1. Background	1
I.2. Purpose	4
I.3. Benefits of Research	4
CHAPTER II LITERATURE REVIEW AND HYPOTHESIS FORMULATION	5
II.1 Literature Review	5
II.1.1 Chalcone	5
II.1.2 Heterogeneous Catalyst	6
II.1.3 Pyrazoline	8
II.1.4 MTT Assay	9
II.2 Hypothesis Formulation and Research Plan	11
II.2.1 Hypothesis formulation I	11
II.2.2 Hypothesis formulation II	11
II.2.3 Research plan	12
CHAPTER III RESEARCH METHOD	14
III.1 Materials	14
III.2 Equipment	14
III.3 Research Procedures	15
III.3.1 Synthesis of 3-(4-Dimethylaminophenyl)-1-(4-hydroxy-phenyl)-propenone (Chalcone)	15
III.3.2 Synthesis of N-hydrogen-4-(3-(4-hydroxy-phenyl)-4,5-dihydro-1H- pyrazoline)-N, N-dimethylaniline (N-hydrogen pyrazoline)	15
III.3.3 Cytotoxicity selectivity of Synthesized Chalcone and N-hydrogen pyrazoline	16
CHAPTER IV RESULTS AND DISCUSSION	19
IV.1 Synthesis of 3-(4-Dimethylaophenyl)-1-(4-hydroxy-phenyl)-propenone (Chalcone)	19
IV.2 Synthesis of N-hydrogen-4-(3-(4-hydroxyphenyl)-4,5-dihydro-1H- pyrazoline)-N,N-dimethylaniline (N-hydrogen pirazoline)	26

IV.3 Cytotoxicity Assay of Chalcone and N-hydrogen Pyrazoline	32
CHAPTER V CONCLUSION AND SUGGESTION	36
REFERENCES	37
APPENDICES	40