

DECLARATION

I. Saqolsem Sanaju Devi, bearing Registration No.: Ph.D/ /462 / 2007 hereby declare that the thesis entitled "Phytochemical and Biological Studies on certain Medicinal Plants of North-East India" submitted to Assam University, Silchar for the degree of Doctor of philosophy (Ph.D) is the result of my own research work carried out under the supervision of Prof. S.B. Paul, Department of Chemistry, Assam University, Silchar. Content of this thesis has not been previously submitted to any University or Institution for any degree or diploma to the best of knowledge.

This thesis is being submitted to Assam University, Silchar for the degree of Doctor of Philosophy in Chemistry.

Place: Silchar

Saqolsem Sanaju Devi

Date:

***Dedicated to sweet memories of my
loving father
Late S. Gourababu Singh***

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*Place: Silchar
Date:*

Sagolsem Saraju Devi

LIST OF ABBREVIATIONS

❖ AIDS	:	Acquired Immunodeficiency Syndrome
❖ ALP	:	Alkaline Phosphatase
❖ AM	:	Amikacin
❖ BaSO ₄	:	Barium sulfate
❖ BaCl ₂	:	Barium Chloride
❖ Bs	:	Bascilus Subtilis.
❖ CCl ₄	:	Carbon Tetrachloride
❖ CCGE	:	Croton Caudatus Geiseler Extract
❖ CDRI	:	Central Drug Research Institute
❖ CNS	:	Central Nervous System
❖ Ch	:	Choloramphenicol
❖ DPPH	:	Diphenyl-1-Picrylhydrazyl
❖ DMSO	:	Dimethyl sulfoxide
❖ DNA	:	Deoxyribo Nucleic Acid
❖ DADS	:	Diallyldisulphide
❖ DATS	:	Diallyltrisulphide
❖ Fu	:	Fluconazole
❖ GATT	:	General Agreement On Tariffs And Trade
❖ GC-MS	:	Gas Chromatography Mass Spectrometry
❖ GPCR	:	Glutamate Pyruvate Co-valent Receptor
❖ GSH	:	Glucocorticoid-Suppressible Hyperaldosteronism
❖ HIV	:	Human Immunodeficiency Virus
❖ HCl	:	Hydrochloric Acid
❖ H ₂ SO ₄	:	Sulphuric Acid
❖ HTI	:	Hemiasterlin
❖ IR	:	Infrared

- ❖ Kp : *Klebsilla Pneumonia*
- ❖ LB-reagent : Leibermann-Burchard Reagent
- ❖ MIC : MIC Minimum Inhibitory Concentration
- ❖ MUFA : Monosaturated Fatty Acid
- ❖ OECD : Organization for Economic Co-operation and Development.
- ❖ QSAR : Quantitative Structure-Activity Relationship
- ❖ ROS : Reactive Oxygen Species
- ❖ SAC : S-Allylcysteine
- ❖ SGOT : Serum Glutamate Oxaloacete Transminase
- ❖ SGPT : Serum Glutamate Pyruvate Transminase
- ❖ SEM : Standard Error Mean
- ❖ S : Streptomycin
- ❖ Sc : Sparfloxacin
- ❖ Sa : Staphylococcus Aureus
- ❖ T : Tetracycline
- ❖ TLC : Thin Layer Chromatography
- ❖ TPC : Total Phenolic Content
- ❖ TPSA : Total Polar Surface Area
- ❖ USA : United States Of America
- ❖ UNCTAD : United Nations Conference On Trade and Development
- ❖ UV : Ultra Violet
- ❖ UNEP : United Nations Environmental Program
- ❖ WHO : World Health Organisation
- ❖ NX : Norfloxacin
- ❖ NF : Nitrofurantoin
- ❖ NMR : Nuclear Magnetic Resonance
- ❖ ZOI : Zone of Inhibition

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Summary and General Conclusion

Scope of future studies

Annexture I : Mark sheet [Ph.D. course work (Old)] Examination,
2009

Annexture II : Identification of plant

Annexture III: Certificates

Annexture IV : Publications

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❖ AIDS	:	Acquired Immunodeficiency Syndrome
❖ ALP	:	Alkaline Phosphatase
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❖ BaCl ₂	:	Barium Chloride
❖ Bs	:	Bascilus Subtilis.
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❖ HTI	:	Hemiasterlin
❖ IR	:	Infrared

- ❖ Kp : *Klebsilla Pneumonia*
- ❖ LB-reagent : Leibermann-Burchard Reagent
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- ❖ SGPT : Serum Glutamate Pyruvate Transminase
- ❖ SEM : Standard Error Mean
- ❖ S : Streptomycin
- ❖ Sc : Sparfloxacin
- ❖ Sa : Staphylococcus Aureus
- ❖ T : Tetracycline
- ❖ TLC : Thin Layer Chromatography
- ❖ TPC : Total Phenolic Content
- ❖ TPSA : Total Polar Surface Area
- ❖ USA : United States Of America
- ❖ UNCTAD : United Nations Conference On Trade and Development
- ❖ UV : Ultra Violet
- ❖ UNEP : United Nations Environmental Program
- ❖ WHO : World Health Organisation
- ❖ NX : Norfloxacin
- ❖ NF : Nitrofurantoin
- ❖ NMR : Nuclear Magnetic Resonance
- ❖ ZOI : Zone of Inhibition

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Summary and General Conclusion

Scope of future studies

Annexture I : Mark sheet [Ph.D. course work (Old)] Examination,
2009

Annexture II : Identification of plant

Annexture III: Certificates

Annexture IV : Publications