

## Department of Chemistry

### Books (2016-2021)

SI No	Name of the teacher	Title of the book	Year of publication	ISBN/ISSN number of the proceeding	Name of the publisher
1.	Dr.Beena Jose	Recent developments in the Chemistry of life and science playing God	2020	ISBN-978 620 2528542	Lap Lambert Academic Publishing, Germany
2.	Dr.Beena Jose	Anticancer potential of Wrightia tinctoria Roxb. R. Br.	2020	ISBN-978 620 2528559	Lap Lambert Academic Publishing, Germany
3.	Dr.Beena Jose	Biochemical studies on Glyricidia sepium and its medicinal application	2020	ISBN-978 620 2553735	Lap Lambert Academic Publishing, Germany

Wrightia tinctoria is a member of the family Apocynaceae commonly called as Indian Bush. The Indian Plant, 'Dhan' (Chemise, tinctoria) is used in both India. The leaves of this tree yield blue dye called 'indigo'. It is a widely recognized medicinal plant and considered to be therapeutically very effective plant as both an indigenous system of medicine. Crushed fresh leaves when filed in the cavity of decayed tooth relieve toothache. In Ayurvedic system of medicine, it is used for psoriasis and other skin diseases. Oil 777 prepared out of the fresh leaves of the plant has been reported to exhibit anti-inflammatory activities and to be effective in the treatment of psoriasis. It has anti-inflammatory and antiproliferative properties and hence is used in hair oil preparations. The study showed that Wrightia tinctoria can be used for the development of effective therapeutic approaches towards the prevention or treatment of various immune conditions and different types of cancer.



Beena Jose

### ANTICANCER POTENTIAL OF WRIGHTIA TINCTORIA (Roxb.) R. Br.



Dr. Sr. Beena Jose is a member of the Congregation of Mother of Carmel. She obtained Ph.D. in Chemistry and was an international research fellow at the ST of Santa Clara University, USA. She is also the recipient of the TORCH international fellowship, University of Oxford, UK. Currently she is the Principal of Vimala College, Kerala, India.

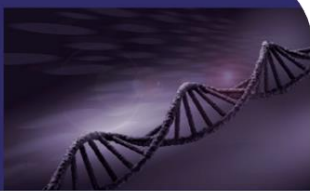


978-620-2-5285-9



The question of life's primordial beginnings, one of the existential questions that scientists have pursued since ancient times, belongs directly to the domain of chemistry. It is therefore relevant to study and reflect on the kinds of chemical reactions that would have been important in molecular origins. The origin of life can be discussed in the platform of an interdisciplinary approach that covers chemical, biological, as well as physical, chemical and philosophical sciences. In this book I focus on the chemical perspectives on the origin of life and the creation of the synthetic cell because of their overwhelming chemical significance. The book aims at exploring the ethical concerns over 'creating life' with special emphasis on Carl Sauer's synthetic cell work to ensure hope and security in the context of the scientific predictions and mounting expectations. It underscores the sacredness that synthetic cells are inherently had because they are unnatural or that their creators are 'playing God'.

CHEMISTRY OF LIFE AND 'SCIENCE PLAYING GOD'



Beena Jose

### RECENT DEVELOPMENTS IN THE CHEMISTRY OF LIFE AND 'SCIENCE PLAYING GOD'

A critical study of the theological and ethical aspects of science's attempt to synthesise life



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The Indian system of medicine, Ayurveda, makes use of plant kingdom very effectively and has used the best of time. Synthetic chemicals in the form of drugs, pesticides, etc. have been successful in combating diseases of man, his domestic animals and plants. However, these are effective and all major diseases in the modern world. However, many of the microbes and insects have become resistant to most of these chemicals. Hence we look to nature as an aid and recourse in finding new strategies to combat disease. In this respect plants serve as a vast reservoir of biologically active chemicals, many of which may have evolved in the defense of predators.



Beena Jose

### BIOCHEMICAL STUDIES ON GLIRICIDIA SEPIUM AND ITS MEDICINAL APPLICATION



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978-620-2-5537-3



### LABORATORY MANUAL

#### BSc Chemistry Complementary Course

Dr Theresa C J, Dr Nancy Mathew  
Dr Nimmy Kuriakose, Dr Jiji Abraham  
Dr Bijoy P Mathew, Dr Sri Lakshmi P Bhaskar

Supported By  
DBT STAR College Scheme, Department of Biotechnology,  
Ministry of Science & Technology, Government of India, New Delhi.

Vimala Publications

### LABORATORY MANUAL

#### BSc Chemistry Complementary Course

#### About the Book

This laboratory manual includes all the experiments for the chemistry complementary course as prescribed in the Calicut university syllabus. The theoretical and experimental concepts related to both quantitative and qualitative analysis in chemistry are discussed. Volumetric estimations such as normalisation titrations, permanganometry, dichrometry, iodometry and complexometry are discussed with all the combinations listed in the syllabus. This manual also contains qualitative analysis of various cations in an inorganic mixture with a discussion of their chemistry (balanced chemical reactions included) and related experiments. Additionally, this book also contains standard operating procedures in the lab, laboratory safety rules, basic first aid measures etc. recorde in lab, main laboratory safety rules, basic first aid measurements etc.



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