WELCOME
TO
NAAC PEER TEAM

Department of Biochemistry
Andhra University
Visakhapatnam

Overview

- Vision & Mission
- Department History & Profile
- Curricular Aspects
- Teaching, Learning & Evaluation
- Research, Innovation and Extensions
- Students support and Progression
- Infrastructure and Learning resources
- Outreach programs
- Way forward

Vision

To be recognized as a center of excellence in Biochemistry by imparting in-depth knowledge in Biochemistry through Teaching & Research activities as per the Industrial Demand & Societal Needs.

Mission

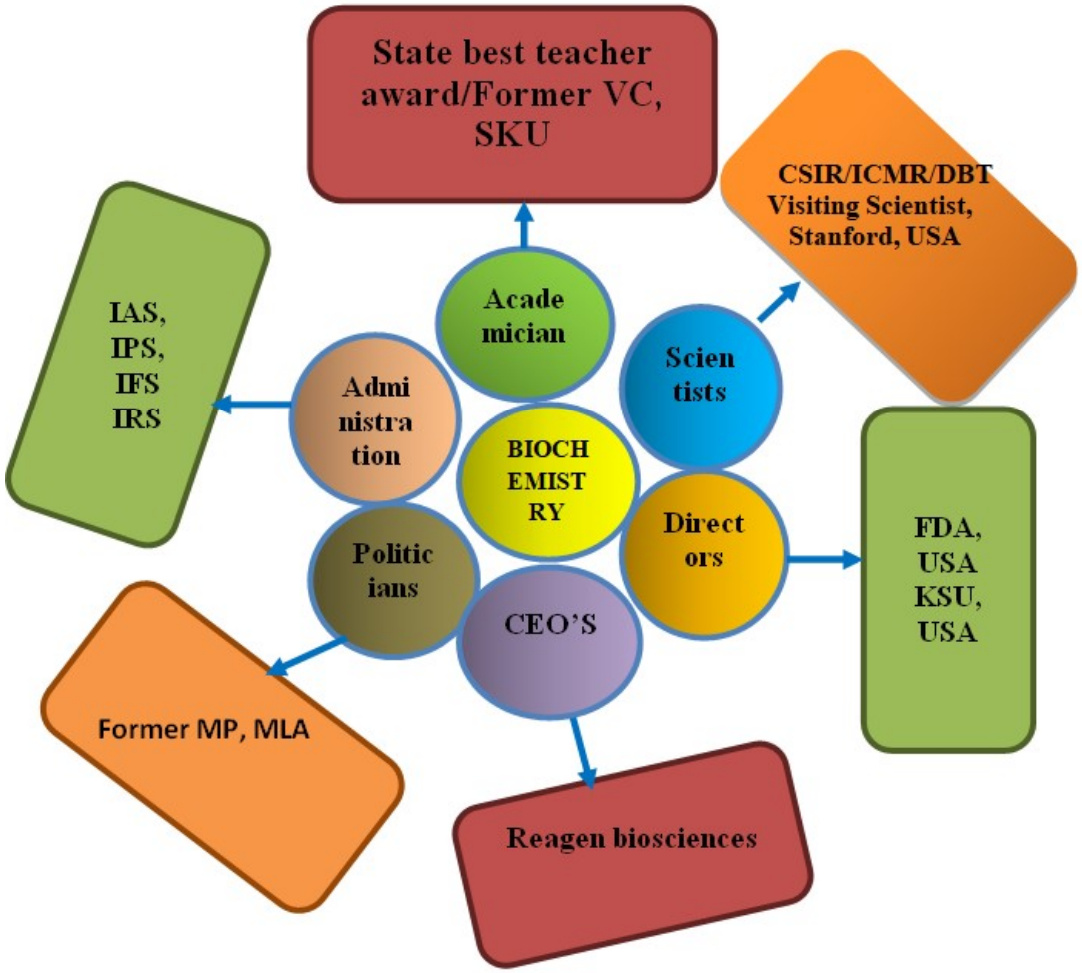
- To provide quality teaching to the students through advanced techniques in Biochemistry
- To create a learning environment that helps the students to enhance critical thinking and innovative research skills
- To foster entrepreneurial skills through high-quality research in Biochemistry

Department History and Profile

Department profile

Established in the year1971

DST-FIST & UGC-SAP Recognized



Prof. B. Naganna

- Founder Professor & HOD. Fellow of the Royal Society of Chemists (UK) & AP Academy of Sciences

Golden jubilee

November, 2021

- International conference (BUNHL-2021)

- Awareness raising activities organized

Eminent Scientist - Dr. Vinay K. Nandicoori

J C Bose Fellow, Director, CSIR-CCMB

Distinguished alumni - Prof. N. Siva Kumar

Dean, School of Life Sciences, UoH

Souvenir released by
Prof. P.V.G.D. Prasad Reddy, VC, AU

Prof. N. Siva Kumar, Dean, School of Life Sciences, UoH

Participants

Dr. Vinay K. Nandicoori
J C Bose Fellow, Director, CCMB

Curricular Aspects

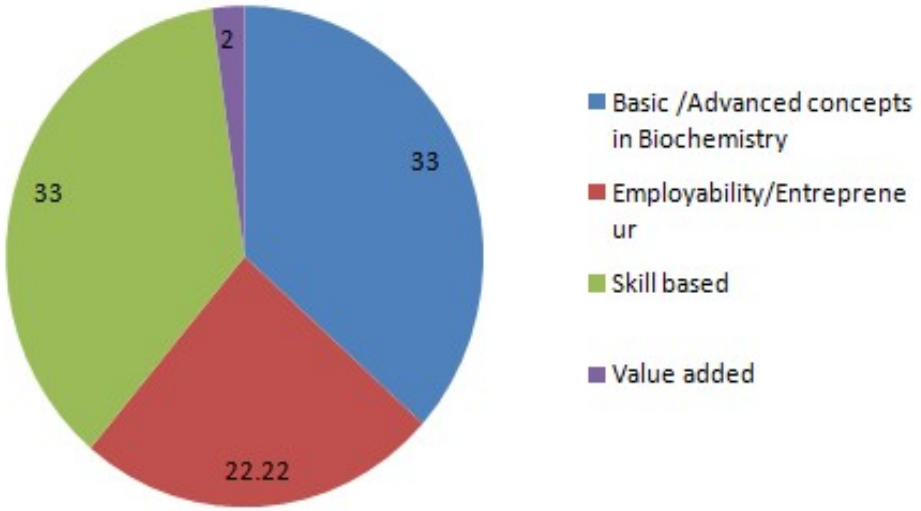
Programs offered

M. Sc

Ph. D

Semester	No. of theory papers	No. of practical papers
I	4	2
II	4	2
III	4+MOOCS+IPR	2
IV	4+MOOCS+RM	2+ PROJECT

OBE Curriculum



M.Sc. Biochemistry curriculum

Basic/advanced concepts in Biochemistry

- Chemistry of Biomolecules
- Physiology and Bioenergetics
- Enzymology
- Cell Biology and Genetics
- Intermediary Metabolism
- Molecular Biology
- Plant Biochemistry and Human Nutrition
- Immunology
- Regulation of Gene Expression and Genetic Engineering

Employability/ Entrerpreneur

- Techniques in Microbiology
- Industrial Biotechnology
- Clinical Biochemistry and Endocrinology
- Biostatistics and Bioinformatics
- Applied Biochemistry
- Project Work

Skill based

- Biochemical Techniques
- Enzymology practicals
- Techniques in Immunology/Molecular Bio/Genetic Engineering
- Techniques in Food Analysis
- Industrial Biotechnology
- Clinical Biochemistry
- Genomics and Proteomics
- Biostatistics and Bioinformatics
- MOOC's Course

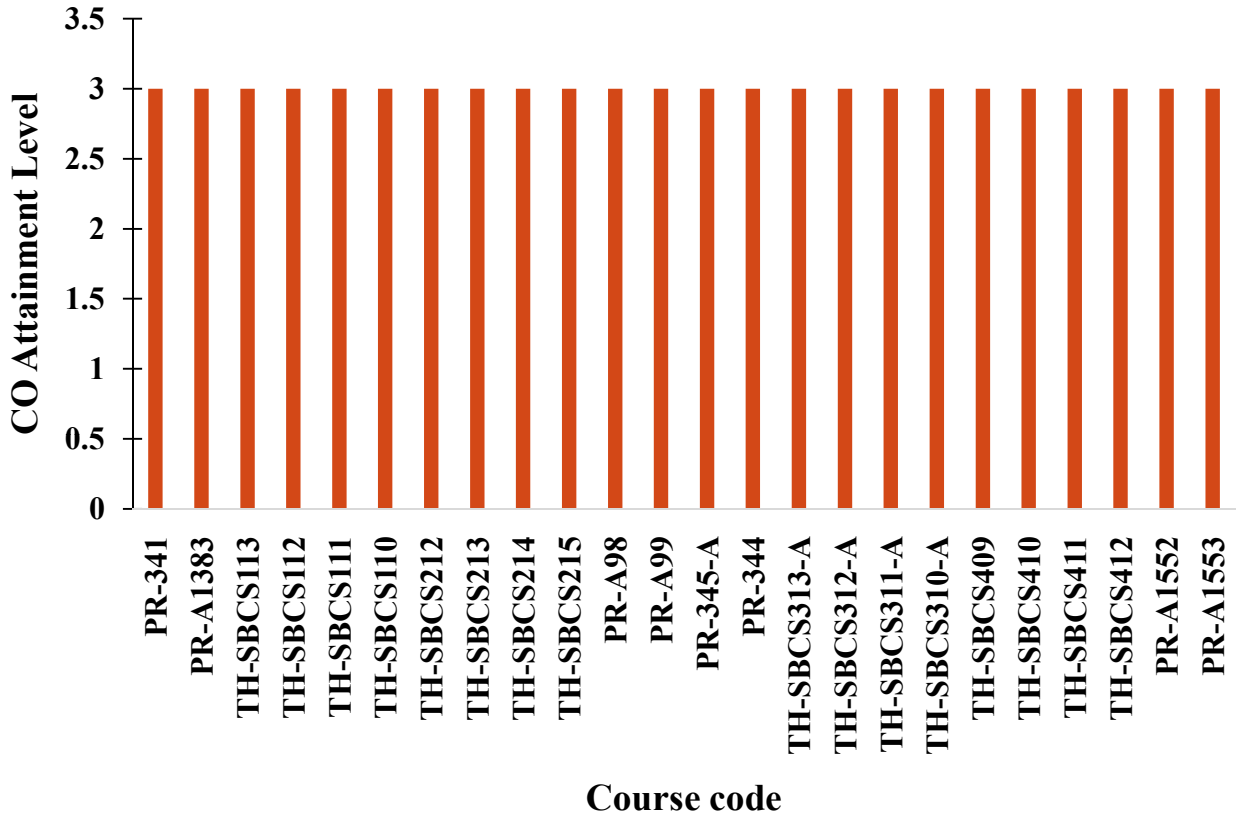
Value added

- Intellectual property rights (IPR)
- Research Methodology

CO-PO Mapping

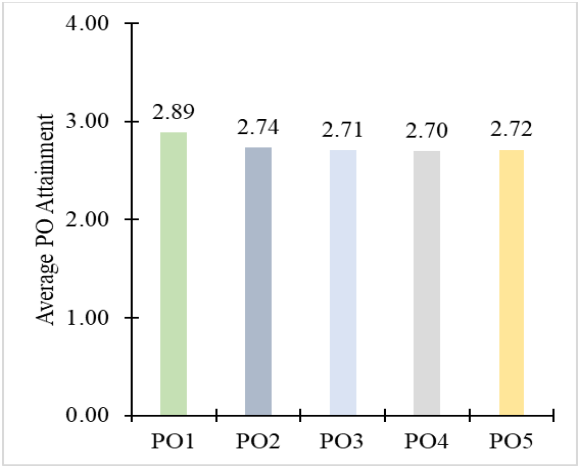
CO: To offer basic concepts of Liver diseases and liver functional tests, renal diseases and renal functional tests etc.	After completion of course	CO: To acquire knowledge about stem cells, types of vaccines their preparation and applications in the treatment of diseases
PO: To apply Biochemistry skills in clinical laboratories and in diagnoses of disease	After M. Sc Biochemistry	PO: To pursue jobs in Pharmaceutical and Biotechnology industries (R&D)
PEO: To start diagnostic centres with the knowledge gained in the class room and through work experience.	Few years after M. Sc Biochemistry	PEO: To establish start-up company with the knowledge gained in the class room and through work experience.

Overall CO attainment

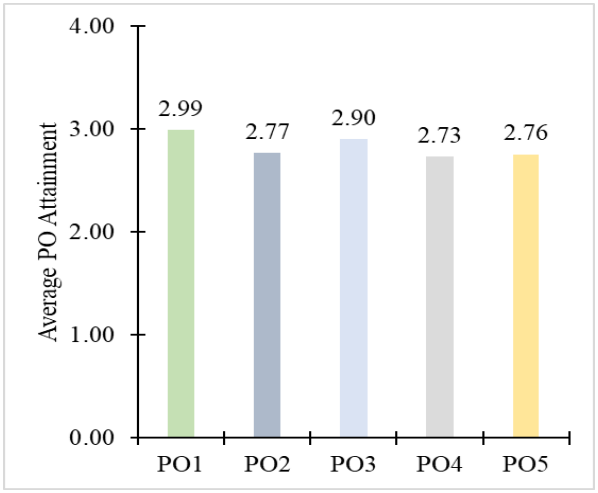


PO attainment

2020-2022



2021-2023



PO1:

To ensure students acquire the necessary knowledge and experience in conducting advanced scientific research in the field of Biochemistry.

PO2:

To inculcate scientific approaches of inquiry in students such that they develop critical thinking and equip themselves with contemporary research methods.

PO3:

To train students on effective domain-specific verbal and written communications of scientific knowledge.

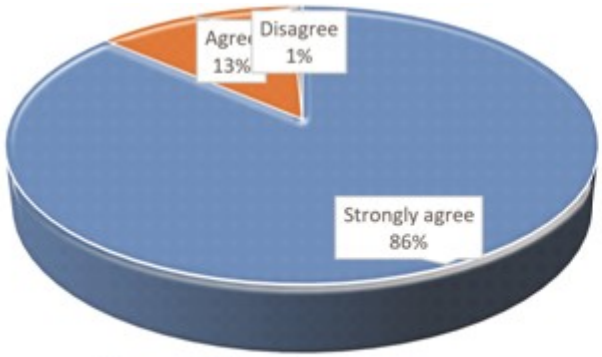
PO4:

To encourage responsible scientific contributions that abide by academic integrity, adhere to intellectual ethics, and promote sustainable development.

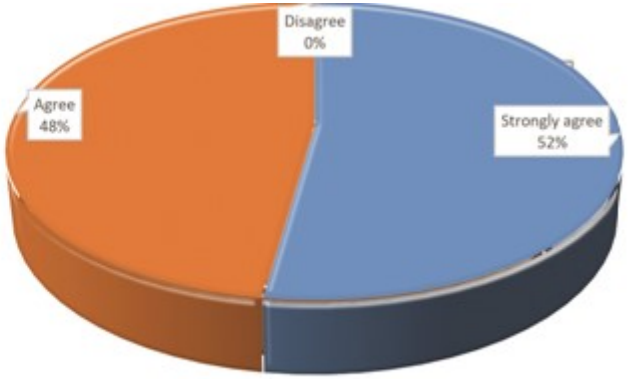
PO5:

To impart a strong sense of continuous self-learning and collaborative teamwork.

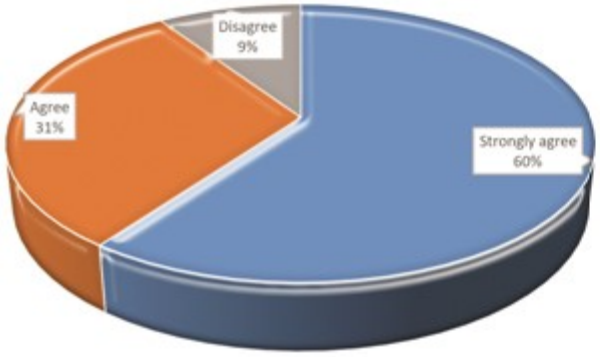
Feedback on curriculum



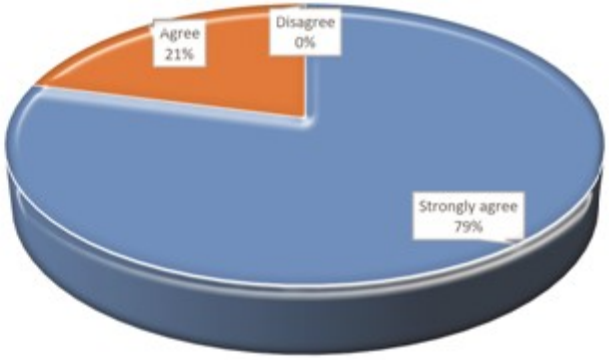
Overall Students responses (2021 to 2022)



Overall faculty responses (2021 to 2022)



Overall Alumni responses (2021 to 2022)

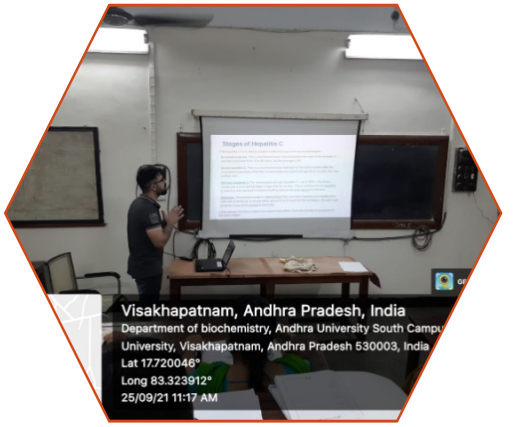


Overall parents responses (2021 to 2022)

Teaching, Learning &Evaluation

Learning categories

Slow Learners	Advanced Learners
• Individual Mentoring • Specially designed assignments • Student study group for peer-to-peer learning • Remedial classes • Constant monitoring • Suggesting user friendly books	• Encouraging to participate & present posters in conferences/workshops • Encouraging for CSIR/ICMR/SLET/Competitive Exams • Individual guidance for career building • To take up more NPTEL courses • To participate in extra-curricular activities



ISSN 0974-3618 (Print)
0974-360X (Online)

www.rjptonline.org

RESEARCH ARTICLE

Phytochemical Analysis and Evaluation of the Antioxidant and Anti-Inflammatory activity of *Canavalia gladiata*

Rajesh Rokkam[1]*, Felicity Pinipay[1], Hemanth Kumar Paidi[2], Raghava Rao Tamanam[3]

[1]Research Scholar, Department of Biochemistry, College of Science and Technology, Andhra University, South Campus, Visakhapatnam 530003, Andhra Pradesh, India.

[2]M.Sc. Student, Department of Biochemistry, College of Science and Technology, Andhra University, South Campus, Visakhapatnam 530003, Andhra Pradesh, India.

[3]Professor, Department of Biochemistry, College of Science and Technology, Andhra University, South Campus, Visakhapatnam 530003, Andhra Pradesh, India.

*Corresponding Author E-mail: **rrajesh125@gmail.com, felicityosteen@gmail.com, hemanthpaidi143@gmail.com, trrao_au@yahoo.com**

ABSTRACT:

The present study was done to determine whether scimitar bean or sword bean (*Canavalia gladiata*) seeds that had been stored for a year contained any proximate phytochemical equivalents and to assess their antioxidant and anti-inflammatory properties. In order of increasing polarity, hexane, ethyl acetate, and methanol were employed to extract phytochemicals from sword bean seeds. Hexane, ethyl acetate, and methanol extract each had a phytochemical yield of 0.23%, 0.26%, and 1.46%, respectively. Quantitative analysis of the extracts revealed that methanol extract had the highest levels of total polyphenolic contents (TPC) (17.74±1.929mg of gallic acid equivalents/g DM) and total tannin contents (TTC) (49.94±1.94mg of tannic acid equivalents/g DM), while hexane extract had the highest levels of total flavonoid contents (TFC) (9.06±1.197mg of quercetin equivalents/g DM). In *C. gladiata* seed extracts, tannins made up the majority of all phytochemicals. The solvent extract from *C. gladiata* seeds also showed strong antioxidant activity as measured by the total antioxidant and DPPH assays. Based on the inhibitory concentration (IC_{50}) value of the DPPH assay, the ethyl acetate extract was shown to be the most effective antioxidant of all extracts (12.68±0.027µg/ml). Anti-inflammatory properties of extracts were evaluated by the egg albumin denaturation method, heat-induced and hypo-tonicityinduced HRBC membrane stabilization methods. The results of the heat-induced HRBC membrane stabilization method with an $IC_{50}$of 613.39±0.975 µg/ml and hypo-tonicity induced HRBC membrane stabilization method with an $IC_{50}$of 185.91±11.008 µg/ml revealed that ethyl acetate extract has significantly higher anti-inflammatory activity whereas methanol extract has shown higher anti-inflammatory activity as per egg albumin denaturation method with an $IC_{50}$of 636±3.51µg/ml. Results showed that *C. gladiata* seed contains varying levels of phytochemical equivalents and indicate that the antioxidant and anti-inflammatory potential varied significantly and have a potential comparable to the standard drugs, ascorbic acid and Butylated Hydroxytoluene (BHT). Hence, *C. gladiata* seeds that have been stored for a year could be a good source of phytochemicalsand they can be used in pharmaceutical, cosmetic, and other formulations.

KEYWORDS: *Canavalia gladiata*, Phytochemical, Antioxidant, Anti-inflammatory, Inhibitory concentration (IC_{50}).

INTRODUCTION:

Scimitar bean or Sword bean (*Canavalia gladiata*) belongs to the leguminous plants ofthe Fabaceae family. It is a perennial and annual fodder cropused for animal feeding in Asia and Africa and it is one of the under-utilized domesticated agricultural commodities in India. Sword beans offer agronomic characteristics that make

Received on 07.04.2022 Modified on 30.06.2022
Accepted on 14.09.2022
Research J. Pharm. and Tech 2023; 16(7):3157-3164.
DOI: 10.52711/0974-360X.2023.00519

IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

DELINEATING PHYTOCHEMICAL, ANTIOXIDANT, AND ANTIINFLAMMATORY PROPERTIES OF *COUROUPITA GUIANENSIS* FLOWER PARTS.

[1]Rajesh Rokkam, [2]Felicity Pinipay, [3]Srividya Bobbili, [4]Raviteja Chokkandla, [5]Raghava Rao Tamanam

[1, 2, 3]Resech scholar, [4]MSc student, [5]Professor

[1] Department of Biochemistry,

[1]College of Science and Technology, Andhra University, Visakhapatnam, India

Abstract: This study aimed to determine the total phenolic content (TPC), total flavonoid content (TFC), total tannin content (TTC), and antioxidant and anti-inflammatory properties of *Couroupita guianensis.*, and aims at the novel plant sources (parts of the flower) which are utilized for their therapeutic applications. The parts of the flower (male, female, and petals) of *C. guianensis* were extracted by methanolic maceration. Folin-Ciocalteu (FC) assay was used for determining the TPC and TTC whereas aluminum chloride colorimetric assay was used for determining TFC. Total Antioxidant (TA) assay, Ferric reducing antioxidant power (FRAP), and Reducing power (RP) assays were used for estimating antioxidant activity. Anti-inflammatory was evaluated by heat-induced hemolysis assay (HRBC) and Egg albumin denaturation assay. The result of three extracts from *C. guianensis* showed that the highest TPC, TFC, TTC, TA, FRAP and inhibition RBC hemolysis of the petals were 27.62 ± 5.516 mg GAE/g extract, 55.21 ± 10.05 mg TAE/g extract, 18.60 ± 7.23 mg QE/g extract, 2.98 ± 0.245 AAEq mg/ml extract, 374.20 ± 7.190 FRAP Units and 97.75 ± 0.09% (1000 µg/ml) with an IC_{50} (half maximal inhibitory concentration) of 329.96 ± 0.5234 µg/mL, respectively. The Female part showed that the strongest activity of reducing power and inhibition of protein denaturation was 0.37 ± 0.027 AAEq mg/ml extract and 29.55 ± 0.027%, with an IC_{50} of 1579.23 ± 1.253 µg/mL, respectively. The conclusion of this study indicates that the petals of *C. guianensis* flower extracts have high potential as novel pharmaceutical applications for antioxidant and anti-inflammatory properties.

Index Terms **- *Couroupita guianensis*, Phytochemical, Antioxidants, Anti-inflammatory, Flower.**

I. INTRODUCTION

Since the beginning of time, different ailments have been treated with plants by several practices. The earliest practices that are still practiced today include Ayurveda, Traditional Indian Medicine (TIM), and Traditional Chinese Medicine (TCM), which date back to 4500 BC (Pandey et al., 2013). The quest for phytochemicals as an alternative to synthetic substances, which are frequently utilized in the food, pharmaceutical, and cosmetic industries, is gaining popularity today. The general public's opinions have changed because of the "green" movement in Western civilization, and many now believe that natural ingredients and extracts are fundamentally safer and superior to manufactured chemicals, with the net result being increased sales of herbal treatments (Atanasov et al., 2015). Medicinal plants are a valuable new source of lead compounds for potential therapeutic targets identified by genomics, proteomics, and high-throughput screening due to their structural diversity.

Hence, several herbal medicines have been proven to have anti-inflammatory and/or antioxidant benefits, even though the precise mechanism of action of these drugs is yet unknown (Choudhari et al., 2020). Despite limited awareness of their medical value, Flowers have been utilized for a variety of diseases since ancient times and they sometimes have characteristics that are different from those of other plant parts. Whether directly or indirectly, flowers have a significant impact on our daily life (Petrovska et al., 2012). The plant species *Couroupita guianensis* belongs to the Lecythidaceae family. Its native habitats are southern India and Malaysia, and it is frequently referred to in Telugu as Nagalinga pushpam. *C. guianensis* has enormous 3" to 5" waxy, fragrant flowers that develop right on the stem's bark (cauliflora). The flowers of *C. guianensis* have a red exterior with a tinge of yellow, are fragrant, and have stamens that are continued as the main androphore. They are rich in alkaloids, phenolics, flavonoids, and stigmasterol, and have essential active components namely isatin and indirubin. Several investigations have shown the presence of carbohydrates, proteins, α-amirin, β-amirin, β-sitosterol, ketosteroids, tannins, and terpenoids (Bergman, 2014).

The leaves and flowers of *C. guianensis* are used for therapeutic purposes, including the treatment of diseases, tumors, pain and inflammatory conditions, colds, intestinal gas production, and colic (Sanz et al., 2009; Prabhu et al., 2012). The volatile oils of the flower display antibacterial and antifungal effects and so they are used for the treatment of rashes, hemorrhages, scabies, diarrhea, and scorpion venom (Shah et al., 2012). As a result, the current study focuses on both qualitative and quantitative phytochemical investigation, the antioxidant and anti-inflammatory activity of methanol (MeOH) extracts isolated from the parts of flowers, namely Male (fertile stamens and staminodes), female (ovary), and petals of *C. guianensis*.

Research, Innovation and Extensions

Faculty Research Profile

Name of the faculty	Degree	Specializations	Publications	Conferences		Citation index	Research degree's awarded	H - index	i-10 index
				Conducted	Attended				
Prof. T. Raghava Rao	Ph.D	Immunology and Bioactive compounds	18 (71)	03	10	440	08 (18)	12	17
Prof. P. Radhika	Ph.D	Natural products drugs, Nanomaterials	08 (35)	01	20	333	--	11	14
Dr. P. Subhashini Devi	Ph.D	Plant Biotechnology& Molecular Biology	15 (28)	05	15	115	03 (03)	06	04
Prof. KPJ Hemalatha	Ph.D	Protein Biochemistry and Enzymology	34 (110)	03	09	737	13 (28)	15	21
Dr. P. Aparanji (C)	Ph.D	Autoimmunity, Pro-inflammatory cytokines	04+02 * (19)	01	10	56	--	04	02
Prof. Roman R. Ganta (Visiting Prof.), KSU, USA	Ph.D	Immunology & Vaccine development	40 (120)	>20	>100	1443	16	20	43

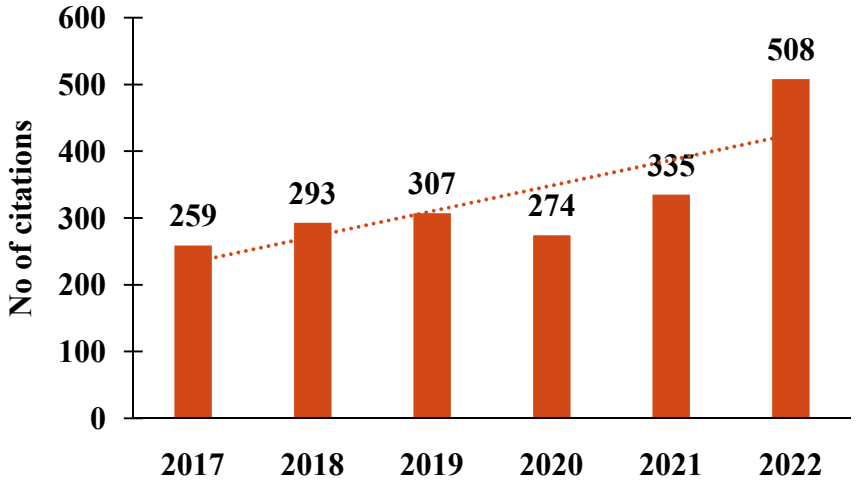
Research Projects

Name	Title	Funding agency	Status
Prof.T.Raghava Rao	Anti-inflammatory potential of ca III gene expression in limiting ROS and RNS stress regulated NF-kB signalling in PBMC cell lines	DST	Completed
	Isolation and characterization of anti- inflammatory and hepatoprotective activity compounds from medicinal plants	UGC	Completed
Dr. P. Radhika	Delivery of natural products in the form of nanomaterials	UGC	Completed
	Development of Drug Molecules from Terrestrial Medicinal Plants- Isolation, Chemical and Biological Studies	DST(W)	Completed
Dr. P. Subhashini Devi	Synthetic Seed Preparation Through Encapsulation of Somatic Embryos and Plant Regeneration of Sterculia urens Roxb. A Commercially and Medicinally Important Tree Species,	UGC	Completed
	Micro propagation and phytochemical studies on Sterculia urens, a commercially important and endangered species	UGC	Completed
	Isolation and characterization of high value nutraceuticals from marine microalgae	CSIR-ASPIRE	Applied
Prof. K.P.J.Hemalatha	Studies on the production of Lactic acid by Fermentation from renewable raw materials using Bacteria/fungi	DST	Completed
	Studies on alkaline protease from the Bacillus species	UGC	Completed
Dr. P. Aparanji	Anti-malarial activity of marine sponges from Andaman	DST(W)	Completed
	Biomedical and anti- arthritic potential of Andaman & Nicobar marine organism	DST (W)	Completed

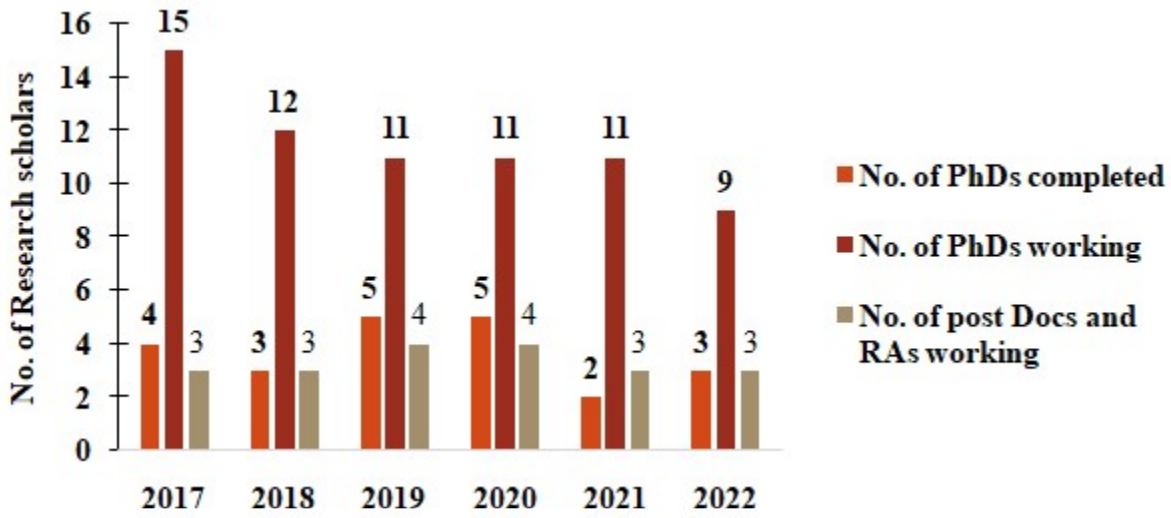
Publications

- Total number of publications = 263
- Total number of Books/Chapters = 8
- Impact factor range = 0.1 to 5.8
- H index range = 4 to 15
- Patent publications = 2
- Commercialization of the patent = 1 (Portable Biosensor)

Citation index



PDF/RA/RS



Name	Research Director	Funding agency	Duration
Dr. D. Muni Kumar	Prof.K.P.J.Hemalatha	UGC-PDF	2015– 2020
Dr. G. Suresh	Prof.T.Raghava Rao	UGC-PDF	2016 – 2021
Dr. B Usha	Prof.K.P.J.Hemalatha	UGC, PDF	2017 – 2022
Dr. P Koteswara Rao	Prof.T.Raghava Rao	ICMR-RA	2019 – 2022
Dr. B. Satyanarayana	Dr. P. Subhashini Devi	ICMR-RA	2022 – 2025

Faculty serving in National Committees and Societies

- Society for Biological chemists, INDIA
- Indian Science Congress Association (ISCA)
- Indian Society of Agricultural Biochemists
- Indian Society of Plant Physiology
- Indian Immunological Society
- Indian Academy of Allergy
- Free radical Society
- Andhra Pradesh Akademi of Sciences

Awards / Recognitions received

- Vice-Chancellor, S. K. University, Anantapur
- State Best Teacher award
- Sarvepalli Radhakrishnan Best Academician award
- Gurubrahma State – Award
- Aanimutyam State – Award
- Fellowship Award – Indian Society of Agricultural Biochemists
- Young Scientist Award - 2020 Agro Environmental Development Society (AEDS), Rampur, UP, INDIA

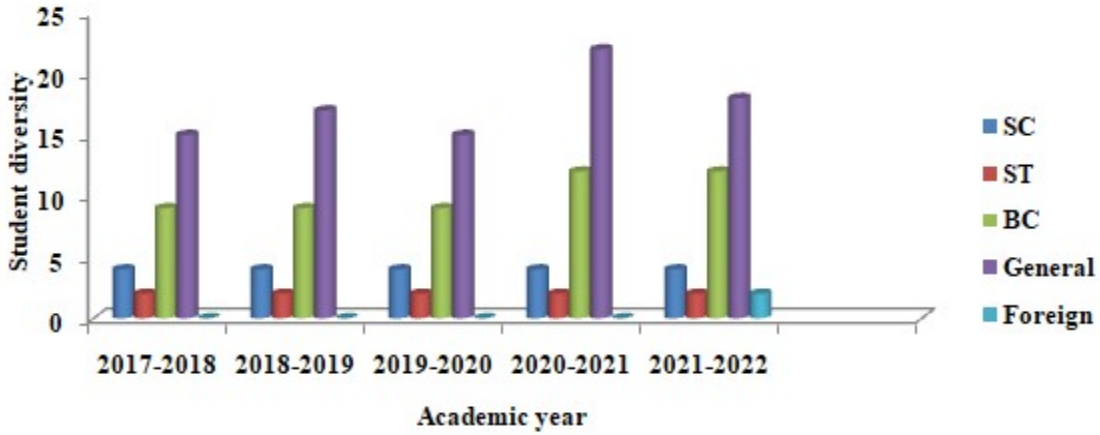
Visits and Interaction with National and International Faculty

Prof. Roman Reddy Ganta*	•	**Director, CEVB, Kansas State University, USA**
Dr. Prabha L Athreya*	•	Director, Division of Scientific Advisors and Consultants, CBER, FDA, USA
Prof. A. Sivaprasada Rao*	•	School of Biomedical Sciences, Leeds University, UK
Prof. N. Siva Kumar*	•	Dean, Faculty of Life Sciences, UoH, Hyd
Prof. Bhagavatula Murthy*	•	Director, Neonatology Research Programme, Baylor College of Medicine, Huston, USA
Dr. Subrahmanyam Vangala*	•	CEO, REAGENE Biosciences, Bangalore
Prof. G. Padmanaban	•	Former Director, IISc, Bangalore
Dr. Vinay K. Nandicoori	•	Director, CSIR-CCMB, Hyderabad
Prof. D. N. Rao	•	AIIMS, New Delhi

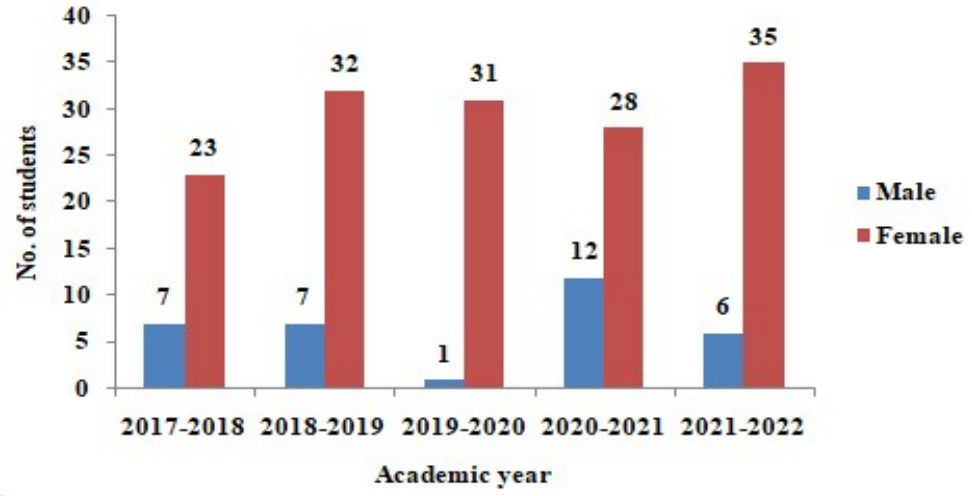
***Alumni**

Students support and Progression

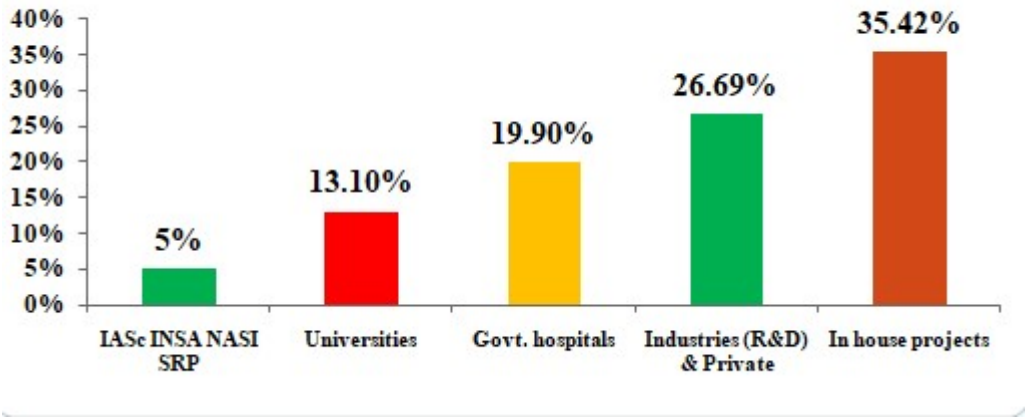
Student diversity



Gender ratio



Student projects



Indian Academy of Sciences Bengaluru | Indian National Science Academy New Delhi | The National Academy of Sciences, Allahabad

SUMMER RESEARCH FELLOWSHIP PROGRAMME

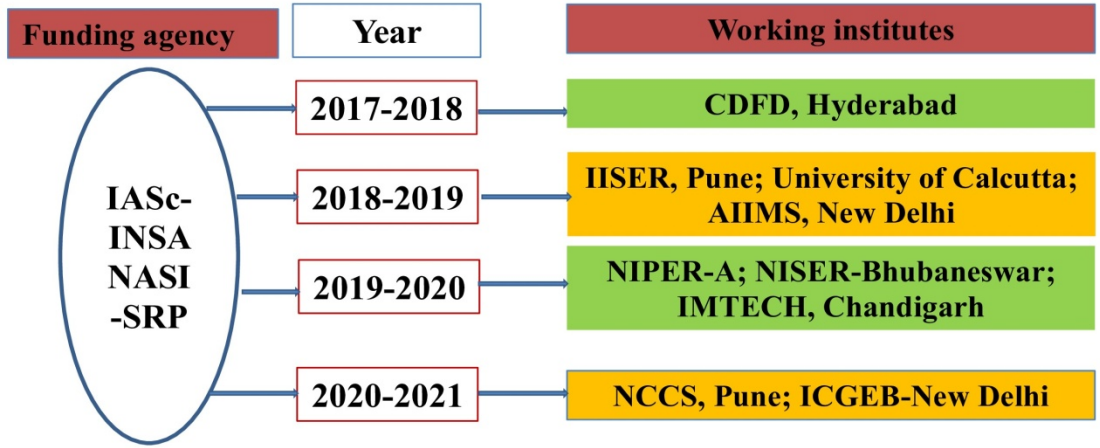
CERTIFICATE

This is to certify that Ms Hari Priya Saripalli worked on a project entitled "Study of protein-protein interactions between GFAlba1 and GFGEN5 in Plasmodium falciparum" during May – June 2018 as a Summer Research Fellow under the supervision of Dr Krishanpal Karmodiya, Indian Institute of Science Education & Research, Pune. The Summer Research Fellowship Programme is jointly sponsored by IASc (Bengaluru), INSA (New Delhi) and NASI (Allahabad).

Place: Bengaluru
Date: 17-09-2018

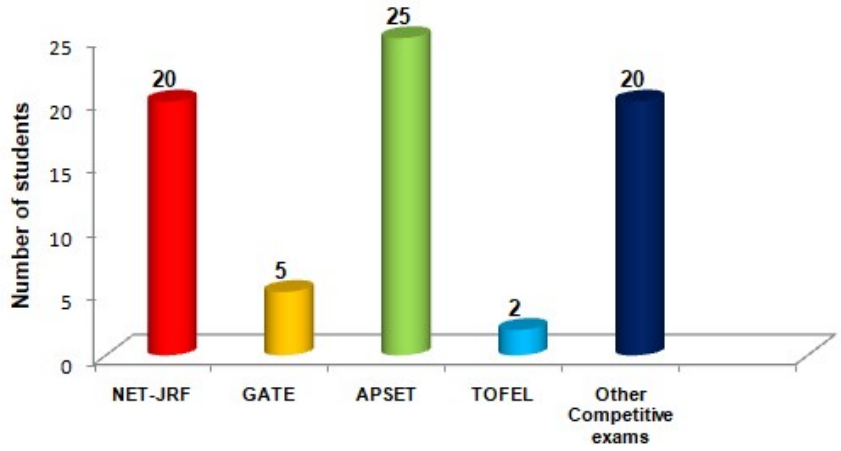
M.R.N. Murthy
Chairman, Science Education Panel

INDIAN ACADEMY OF SCIENCES
P.B. No. 8005, C.V. Raman Avenue, Sadashivanagar P.O., Bengaluru 560 080, India

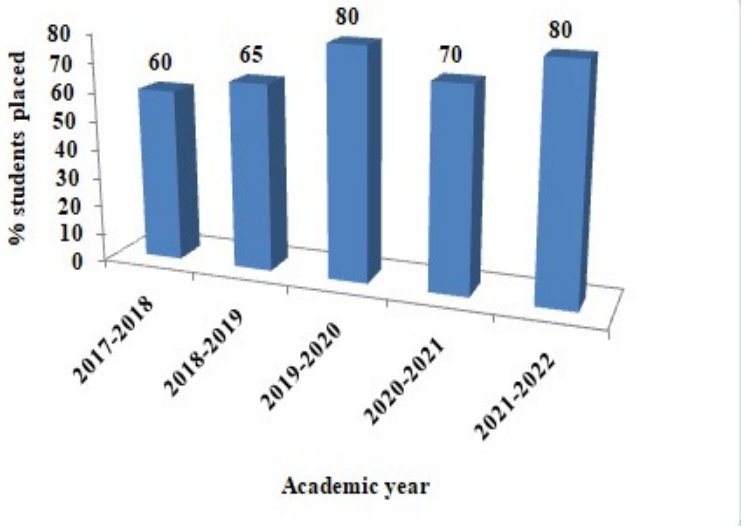


Competitive exams qualified by students

2017-2022



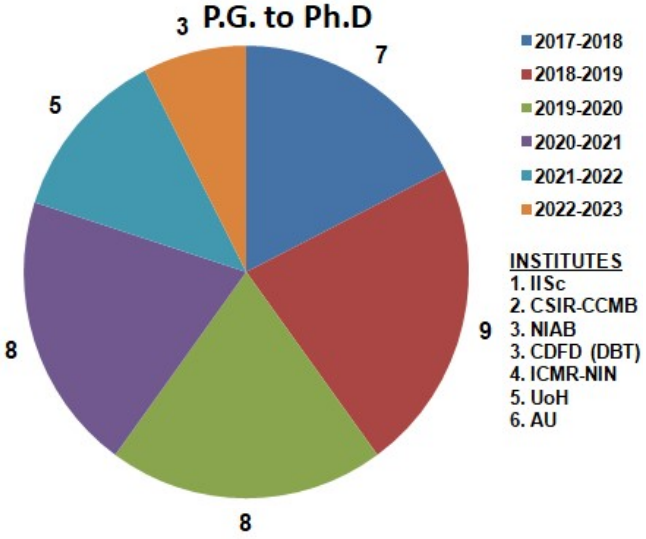
Student placements



Result analysis

S. No	Program	Year	Number of students appeared in the final year examination	Number of students passed in the final year examination	Pass percentage	Distinctions	First class
1.	M. Sc Biochemistry	2017-2018	30	29	96.5	20	09
2.	M. Sc Biochemistry	2018-2019	32	31	97	21	10
3.	M. Sc Biochemistry	2019-2020	32	31	97	22	09
4.	M. Sc Biochemistry	2020-2021	22	22	100	18	04
5.	M. Sc Biochemistry	2021-2022	41	40	97.5	16	24

Higher studies



UNIVERSITY OF HYDERABAD

O/o the Controller of Examination
Academic Section

No. UH/Acad/2020

Dated: 01-Mar-2021

CONDITIONAL ADMIT CARD

Mr. /Ms. **GOLAGANA VELANGANI HARSHITHA** is conditionally admitted to **Ph.D. Biochemistry** in the **Department of BiochemistrySchool of Life Sciences** for the Academic Year 2020-21

In case, if any of the documents submitted by you are found false/invalid or not according to the minimum eligibility criteria, the admission will be cancelled immediately without any notice.

His/Her **Reg.No.** is **20LBPH15** and H.T.No. is **15108008**

To
The Head/ Director/Coordinator/Dean,
Department of BiochemistrySchool of Life Sciences

Note: Classes will commence from 8th of March.

Deputy Registrar
(Academic & Exams)

CENTRE FOR DNA FINGERPRINTING AND DIAGNOSTICS

CDFD/ACAD/722/19/BS/JRF-06 March 19, 2019

OFFICE MEMORANDUM

Having accepted the terms and conditions enclosed tc the offers of Junior Research Fellowship No. CDFD/ACAD/708/18/RSP – II – 2018, dt. 22.02.2019, Mr. Brahmaji Sontyana has reported for duty as CSIR – Junior Research Fellow on the forenoon of 13.03.2019.

Mr. Brahmaji Sontyana will be working under the guidance of Dr. Sangita Mukhopadhyay, Staff Scientist.

[SANJEEV KHOSLA]
Dean – Academics

EMORY
YERKES NATIONAL PRIMATE RESEARCH CENTER

Revised September 3, 2021

Dr. Kishor Jakkala
Bangalore, India
kishorchembio@gmail.com

Dear Kishor,

We are pleased to offer you the position of Post-Doctoral Fellow at the Yerkes National Primate Research Center of Emory University, Division of Microbiology and Immunology within the laboratory of Dr. Rama Rao Amara with an annual salary of $53,760. This salary is in compliance with the NIH FY21 pay scale for PGY0 level. In addition, we will provide you with a relocation bonus of $1000, subject to applicable taxes and paid during your first month of hire. This offer is contingent upon you receiving a valid employment authorization document prior to your start date. This position will be an exempt, monthly paid position that requires direct deposit to your U.S. bank account. The pay day is the last working day of each month.

Your full-time, time-limited position is effective September 15, 2021 through September 14, 2023. This is an annually renewable appointment as a Postdoctoral Fellow that cannot exceed five (5) years' duration at Emory University. Your annual reappointment is dependent on research funds to cover your salary, satisfactory performance in your research, and the agreed expectations established between you and Dr. Amara. In this position, your responsibilities will involve work in the field of vaccine development against infectious diseases such as SARS-CoV-2, HIV. This work will involve developing and testing novel viral vector and protein vaccines in mice and rhesus macaques. The objectives of these studies are to understand how different vaccine modalities induce long-lived humoral and cellular immune responses and provide protection.

You will receive an email to complete online orientation prior to your first day of employment. You may review benefits information on the web by visiting http://www.hr.emory.edu/eu.benefits/. During your first week of employment, you will be introduced to the University and receive an explanation of benefits. Enrollment of benefits will occur slightly after your start date but will be effective retroactive to the start date. Failure to enroll (within 31-days of your hire) will require that you wait until the next open enrollment period to sign up for benefits.

We would appreciate a formal reply at the earliest and request that you indicate your acceptance of this appointment by signing, dating, and returning a copy of this letter to Shayla Edmondson at sedmon3@emory.edu. In the meantime, please do not hesitate to contact me should you have any questions. We are excited about the possibility of you joining our group and am confident that the environment of the lab will offer you opportunities for scientific growth. We look forward to a productive relationship of mutual benefit to you and the Yerkes Center.

Sincerely,

Yahaira Hernandez
Yerkes Div. Director, Human Resources

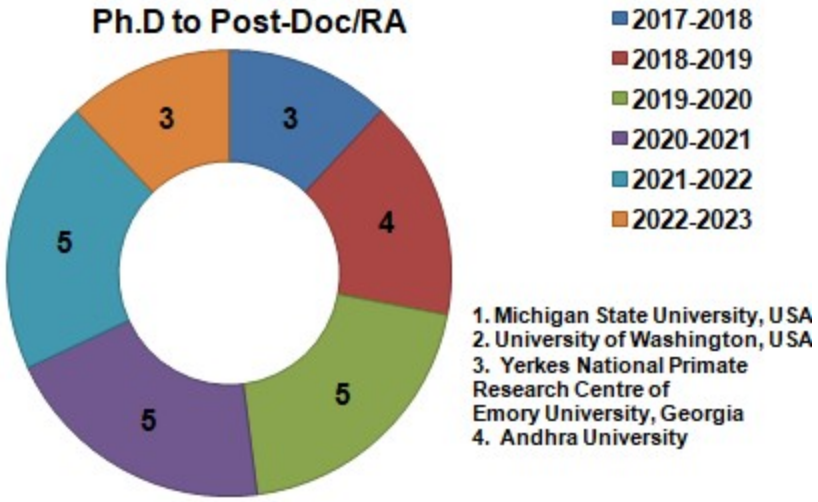
Cc: Dr. Rama Rao Amara, Professor

I accept the offer as presented above:

09/03/2021
Signature of recipient (Jakkala, Kishor) Date (M/D/YY)

Yerkes National Primate Research Center
Emory University
954 Gatewood Road NE
Atlanta, Georgia 30329
Tel 404.727.7711
www.yerkes.emory.edu

EEO/AA/Disability/Veteran Employer



Career Guidance

Sri. Kamal Kumar, IPS
DGP, Himachal Pradesh

Prof. Roman R. Ganta
Director, CEVBD, KSU, USA

Student competitions

Merit Awards to the students

Prof. B. Naganna Memorial Award

Prof. T. Ramana Memorial Award

Prof. T. Govardhan Reddi Memorial Award

Smt & Sri G Seshaiah and Smt & Sri G. Subramanyam Memorial Award

Infrastructure and Learning resources

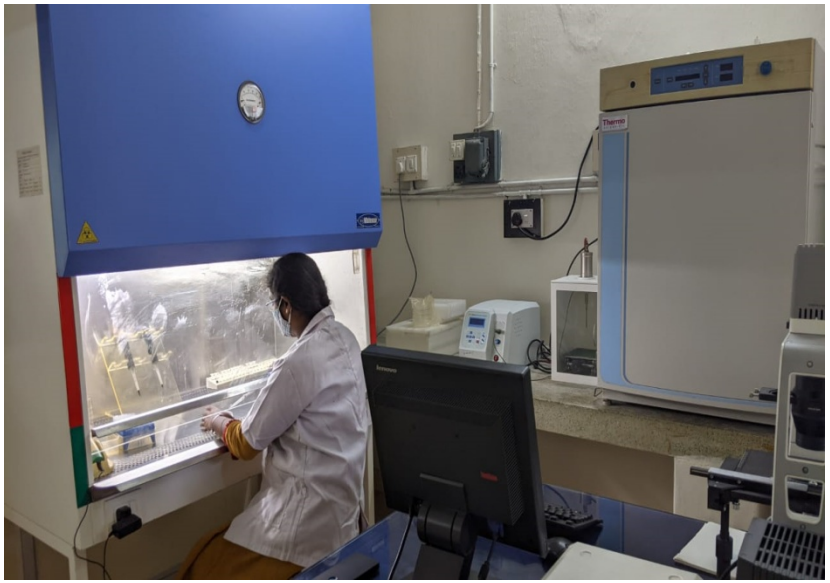
Library

- >1000 Books
- Recent Books
- Back volumes
- Annual Reviews

Students' laboratory (Final) equipped with Centrifuge, Orbital shaker, Laminar airflow unit, Hot air oven, Incubator, Autoclave, Colorimeters, pH meter etc.,

Students' laboratory (Previous) equipped with Centrifuge, Hot air oven, Incubator, Autoclave, Colorimeters, pH meter etc.,

Animal tissue culture lab equipped with Bio-safety hood, CO_2 incubator, Sonicator & inverted microscope



Waste management policy

Waste Management Plan at Department of Biochemistry, Andhra University

We Ensure the safe and responsible disposal of biohazardous and chemical waste to Reduce the environmental impact of waste generated by the department. We constantly Promote awareness and educate the department students and members on waste management best practices.

Common practices:

- Disposal of **biohazardous waste** (animal tissues, serum, syringes and used cotton swabs, etc) in compliance with local regulations **(Maridi Eco Industries (Andhra) Pvt. Ltd. - Visakhapatnam).**
- Proper labeling and disposal of chemical waste by **central deposable service** at Andhra University.
- **Microbial and animal tissue culture** waste disposal after proper decontamination by steam **autoclaving.**
- All **general waste** and **disposable sharps** like pipettes, broken glass and laboratory instruments are placed in puncture resistant container that is consistent with institution waste management plan.
- Promote the use of recycling bins within the department and encourage reducing single-use plastics and paper waste.
- Organize clean-up and waste separation drives and implement a "Green Lab" program to reduce waste in experiments.
- Collaborate with University authorities and adhere to regulations.

WE CATEGORIZE WASTE INTO:

- Chemical Waste
- Microbial Waste
- Clinical Waste
- General waste

Our Waste Management Plan is a crucial step towards a greener, cleaner, and safer environment at the Department of Biochemistry, Andhra University.
We are committed to our responsibilities.

"Proper waste management is critical for environmental sustainability and safety within our department."

Instrumentation facility

GC-MS; Shimadzu, Rs 15.0L

HPLC; Waters (India) Pvt. Ltd., Rs 15.45L

UV-VIS Spectrophotometer;Toshwin, Rs 7.0L

Lyophilizer; Thermo scientific, Rs 2.5 L

Deep freezer; Operon Ltd; Rs 3.35L

CO_2 Incubator; Thermo; Rs 4.5L

Gel documentation system; JH Bio Innovations Pvt.Ltd; Rs 4.5L

Fluorescence Inverted Microscope; Carl Zeiss; Rs 14.0L

Outreach programs

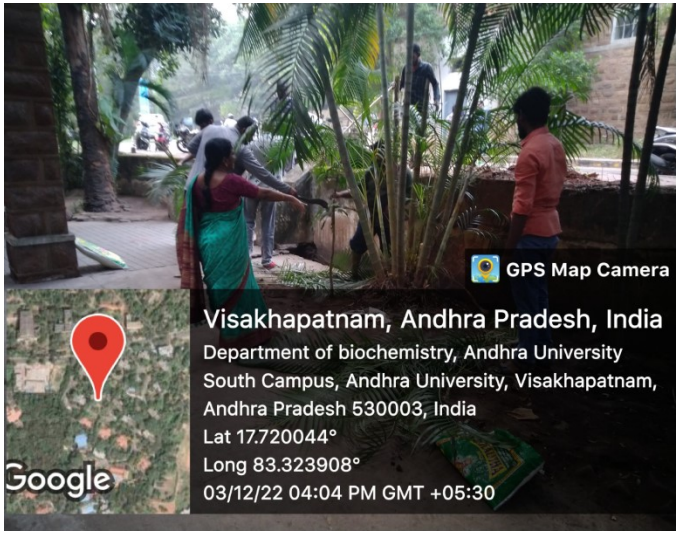
Lab to Society

Visit to “Lebenshilfe” disabled children school

Beach cleaning program

Walk-a-thon

Clean & Green Initiatives



Distinguished Alumni (Academics)

•Dr. Prabha L Athreya	• Director, CBER, FDA, USA
•Prof. Roman R. Ganta	• Director, CEVBD, KSU, USA
•Prof. Bhagavatula Moorthy	• Director, Department of Pediatrics, BCM, USA
•Dr. Ekambar Kandimalla	• Head, Gene Leap, USA
•Prof. Varaprasad Rao Nemani	• University of Southern California, USA
•Prof. A. Sivaprasadarao	• Leeds University, UK
•Dr. Sai Annapurna P	• Senior Director, Siemens Healthineers, USA
•Prof. Aruna	• Leeds University, UK
•Dr. K. Ravi	• University of Florida, USA
•Prof. N. Siva Kumar	• Dean, School of Life Sciences, UoH, Hyd
•Dr. Subrahmanyam Vangala	• CEO, Reagen Biosciences Pvt Ltd., Bangalore
•Dr. M. Sasikala	• Director, Research Division, AIG Hospitals, Hyd
•Dr. G. Muralikrishna	• Chief Scientist, CFTRI, Mysore
•Dr. R. Sarada	• Chief Scientist, CFTRI, Mysore

Distinguished Alumni (Admin)

•Sri. V. Varaprasada Rao	• IAS, Former MP, MLA, Gudur
•Smt. Suvarna Gandham	• IAS
•Sri. Premchandra Reddy	• IAS, Principal Secretary to Government (SR), Govt. of AP
•Sri Kamal Kumar	• IPS, DGP, Himachal Prasad
•Sri. P.A.V. Uday Bhaskar	• IFS, Director, APSFA (Andhra Pradesh State Forest Academy)
•Sri. B. S. S. Prasad	• IFS, Chairman, APPCB & IFS Divisional Forest Officer
•Sri. V. Sivasankara Prasad	• IFS
•Sri. Ram Mohan	• IFS
•Sri. P. Vijay kumar	• IRS

Way forward

- **Research collaborations with industry.**
- **To expand teaching and research programs, which are novel, integrative that attracts intellectuals of the country.**

THANK YOU