# Department of Biochemistry & Nutrition 31<sup>st</sup> of October 2023

## Field visit to IKP knowledge Park, Genome valley, Shamirpet, Hyderabad

The Department of Biochemistry & Nutrition has encouraged final year M.Sc Biochemistry students to visit an open day of IKP Knowledge park, Genome valley, Shameerpet, Hyderabad on 31st October 2023. Dr. Viswanadham Duppatla, Vice president of IKP knowedge Park, explained to the students about various opportunities available in the pharma industries, importance of incubation hubs, role of catalyst in student innovations.

Students had an opportunity to get exposed to Incubation and Analytical Laboratories of IKP. Mr.Vyankatesh Apte guided the students through the analytical lab and described the principles and applications of TGA, DSC, NMR, HPLC,GC and MS instruments. Mrs. Rajyashri explained about Gel doc, Desiccator, Lyophilizer, Fermenter and various other instruments and their importance in industry.

Students also attended Workshops titled "Regulatory strategy, implementation for regulatory medical devices"; "IPR and Understanding negotiating term sheets" which triggered young minds in innovative thinking. Students have also attended startup exhibitions and interacted with various Company Delegates.

A total of 24 M.Sc II year students have visited the IKP Knowledge Park, accompanied by Dr. Kamala Golla, lecturer in Biochemistry. Overall, the visit was very informative, practical oriented and highly beneficial to the students.

#### **Guest lecture**

## 28th October, 2023

The Department of Biochemistry & Nutrition organized a guest lecture on 28<sup>th</sup> October, 2023. The guest lecture titled **"Physiological abilities of a devastating invasive insect of the United States"** was delivered by an alumnus student, Dr.R.Swapnapriya, (M.Sc Biochemistry, 2006-08) Research Associate, North Carolina State University, USA, She spoke on the crop

destroying abilities of an insect called Ash borer which destroys trees in USA. Dr Swapnapriya explained the methodologies including proteomics and metabolomics which were employed to study the gut enzymes and phenolics in the gut of the ash borer insect. She also explained the bioinformatics approaches like identifying ligands that can change the active site of the gut enzymes that help the insect to overcome the effect of insecticides and pesticides.

After the talk, Swapnapriya also gave inputs regarding career prospects in the area of research and extended her help in providing information to the students on the admission process in universities in the United States. The post graduate students of M.Sc Biochemistry interacted well with Dr.Swapna Priya and the guest lecture received good feedback from the students.

### **Department of Biochemistry & Nutrition**

Value added course (2023-24)

#### Hands on training on "Molecular techniques"

#### In collaboration with Global Medical Education and Research Foundation, Hyderabad

## 3<sup>rd</sup> to 7<sup>th</sup> October, 2023

The Department of Biochemistry & Nutrition organized a five-day value-added course titled "Hands-on training on Molecular Techniques" as part of skill development in current research-oriented techniques in collaboration with Global Medical Education and Research Foundation (GMERF), Lak-di-ka-pul, Hyderabad. The objective of this course was to familiarize the students with the latest molecular techniques that are essential part of research and industrial work.

A total of 20 students from M. Sc II year Biochemistry (Semester III) has taken up this course that was held from 3<sup>rd</sup> to 7<sup>th</sup> October, 2023. Students had a complete hands-on training on various molecular techniques like PCR- Conventional, ARMS (Amplification Refractory Mutation System), Multiplex- PCR, RFLP (Restriction digestion), agarose gel electrophoresis, cDNA synthesis, and gained theoretical knowledge on primer designing, gene expression analysis and karyotyping.

On the first day, Dr Prasanna Latha, Senior Scientist gave a brief orientation on the need for the students to learn these molecular techniques. This was followed by briefing on good laboratory practices (GLP), proper disposal of hardazous wastes, handling of miniscule sample volumes, SOPs for isolation of RNA and DNA from biological samples. During practical session, students isolated DNA from fresh blood samples. On Day 2, students had a hands-on training on PCR. In the afternoon session, students were engaged in the synthesis of cDNA.

Day 3 students analysed the PCR products on agarose gel and interpreted the results. Day 4 commenced with experiments on RFLP, RT-PCR and karyotyping experiment based on the culturing and plating the cells using dropping method.

On the fifth day, students were explained about gene expression analysis using RT-PCR, in-depth insights on primer designing and also on various online e-resources available on various techniques. The course was concluded with a valedictory session with closing remarks delivered by Dr S Padma and by the faculty and research scholars of GMERF who have guided and assisted our students. Distribution of participation certificates along with feedback were taken from the students. Students had an enriching and highly informative hands-on experience on the current molecular techniques. The enthusiasm shown by the organizers and the learners was prodigious.

## **Department of Biochemistry & Nutrition**

## "Rashtriya Poshan Maah – 2023" Celebrations

#### 21<sup>st</sup> September, 2023

The Department of Biochemistry & Nutrition, Bhavan's Vivekananda College, Sainikpuri, has celebrated "Rashtriya Poshan Maah-2023" for third consecutive year to create awareness and foster nutritional understanding among students, staff and community to highlight the importance of nutrition in maintenance of health and in prevention and treatment of diseases. The theme of the Rashtriya Poshan Maah-2023 was "Suposhit Bharat, Sakshar Bharat, Sashakt Bharat".

On 21<sup>st</sup> September, 2023, the event was inaugurated by Chief Guest Prof. C. Anjali Devi, former head, Dept. of Food & Nutrition, O.U. Hyderabad, principal Dr. G.S.V.R.K. Choudary, Life Science Head Dr. Anuradha, and HoD, Department of Biochemistry & Nutrition Dr. A. Sai Padma. The inaugural session was followed by the keynote address of Prof. C. Anjali Devi,

former head, Dept. of Food & Nutrition, O.U. Hyderabad on the theme of the Rashtriya Poshan Maah -2023. She has emphasized on eating right and how food and nutrition security along with access to food is important to good health.

This was followed by the guest lecture by guest speaker, Ms. A.N. Malleswari, Chief Dietecian, Star Hospital, Nanakramguda, Hyderabad, on "Healthy Diet Gawing Habit for Life". She emphasized on various aspects like benefits of healthy food habits for all, having a healthy sleep cycle, maintenance of circadian rhythm, and stressed on increasing the physical activity.

After the guest lectures, inter collegiate competitions were held in various events. Research Article Presentation was held for UG and PG students. The students have presented a single research article on nutritional aspects from a standard journal. A total of 25 teams have participated with a team size of two students.

Another event was "Budget Plate", where the students had to plan a recipe of required nutrient recommendations within the specified budget. A total of 15 teams have participated in the event with a team size of two per team

The last event was "Nutri-Quiz" with innovative nutrition based questions were included which were thoroughly enjoyed and appreciated by the participants. A total number of 25 teams participated with a team size of two students per team.

The program was concluded by a Valedictory Session chaired by principal Dr. G.S.V.R.K. Choudary. Winners of all the competitions were announced and appreciated with mementos and certificates by the Principal and Head of the department. A total strength of students participated was 133 from St. Anns College for Women, St. Francis Degree and PG College, and RBVRR College along with the in-house students. Overall, the program Rashtriya Poshan Maah- 2023 was an enriching experience for the students of degree and PG of twin cities.

## **Department of Biochemistry & Nutrition**

"Visit to Yashoda Hospital"

30<sup>th</sup> September, 2023

The students of MBNDC final year were taken for a visit to Yashoda Hospital, Secunderabad on September 30<sup>th</sup>, 2023 as part of their course curriculum. The Chief Dietician Mrs. Swetha A. (Registered Dietician) has addressed the students about the role and job profile and the challenges faced by dietitian in clinical practice. The visit started with a disclosure to the food and beverage units, which included the hospital kitchen and cafeteria. Students got an opportunity to understand the necessity and significance of quality and quantity food preparation in a hospital set up. This was followed by an explanatory session by the chief dietician. Intricate points were well explained regarding the special feeding methods which have to be focused while assessing the patient and in planning and preparation of the special feeds. This was followed by a short quiz. After the session, the students were taken to the inpatient wards. A total of 26 students have visited the hospital accompanied by a faculty member. Overall, the visit was very informative, practical oriented and highly beneficial to the students.

#### **Report on Outreach Program at ZPHS for Girls, Alwal**

#### 16-09-2023

The Department of Biochemistry & Nutrition has organized an outreach program for High school students of ZPHS for Girls, Alwal on 16<sup>th</sup> September 2023. The M.Sc Biochemistry students of the department along with faculty members have participated in the outreach program. High school students of class IX and X were benefitted from the outreach program. Various models and charts were displayed to the students and models of the process of respiration, enzyme catalysis, and agglutination were explained enthusiastically by the post graduate students. Experiments including isolation of DNA from onion, Thin layer chromatography of plant pigments, pH indicator from the natural sources, blood grouping, and differential count of leukocytes were explained and demonstrated to the students. A total of 101 school students have got their blood group testing done. The outreach program has received good response and well appreciated by the students and staff of the school.

## "Millet Poster Exhibition"

#### 14<sup>th</sup> September, 2023

The Department of Biochemistry & Nutrition, Bhavan's Vivekananda College, Sainikpuri, has conducted series of events to elevate the usage of millets as the year 2023 was declared as the International Year of Millets by United Nations General Assembly. "Millet Poster Exhibition" was held to increase the awareness on millet usage. A total number of 23 students have exhibited their posters. Staff and students have visited and learnt about the importance of millet usage.

#### Visit to Ramakrishna Math

## 9th September, 2023

The students of Department of Biochemistry & Nutrition deputed students visited Vivekananda Institute of human excellence along with faculty member, to attend a national level conference **on Education in India:Past, Present and Future** organized as a part of 125<sup>th</sup> Anniversary celebrations of foundation of Ramakrishna Mission. The programme started with the inaugural function. Swami Bodhamayananda, Adhyakshsa, RKMath, Hyderabad gave the welcome address. The Chief guest, Mrs. Sridevasena, IAS, Commissioner of school Education, Government of Telangana, delivered a talk on the changes in the education system and elaborated on the measures being taken to improve the teaching-learning process. The students took part in the panel discussion moderated by Dr.V.Raghu, educationist from Benguluru. Another parallel session was arranged for faculty members and parents which was conducted by Dr.Mohan Raghavan. Dr.Mohan gave an overview of the ancient Indian education system and its relevance in modern education. All the participants were given certificates after completion of the programme.

## "Cinematize – Cooking of Millet Recipes"

## 4<sup>th</sup> to 11<sup>th</sup> September, 2023

The Department of Biochemistry & Nutrition, Bhavan's Vivekananda College, Sainikpuri, has conducted series of events to enhance the usage of millets as the year 2023 was declared as the International Year of Millets by United Nations General Assembly. A video making competition, "Cinematize- Cooking of Millet Recipes" was organized. Students from different departments have participated and uploaded videos on various millet recipes and their preparation by themselves. Nutrient content of the recipes was also highlighted in the videos along with the significance and advantages of including millets in daily use. A total number of 16 students have participated in making the videos. The videos were uploaded in the college Instagram via Bhavansbytes.

## "Millet Mela"

## 1<sup>st</sup> September, 2023

The Department of Biochemistry & Nutrition, Bhavan's Vivekananda College, Sainikpuri, has conducted a series of events to bring awareness on the usage of millets as the year 2023 was declared as the International Year of Millets by the United Nations General Assembly. "Millet Mela" is an event where students prepare novel recipes made of millets and keep them for sale to the staff and students of the college. Various millets like Ragi, Jowar, Barnyard millet, foxtail millet, Bajra etc. were used in making the recipes. Nutrient content of the recipes was also displayed to educate the visitors of the stalls.

Various millet recipes like millet chat, ragi laddo, choco-ragi pudding, kodo millet spicy murku, ragi burfi etc. were prepared by the participants. A total of 10 students have participated in the event.

## **Department of Biochemistry & Nutrition**

#### Alumni meet

26<sup>th</sup> August, 2023

#### Career Guidance: Empowering your future with Alumni

The Department of Biochemistry & Nutrition organized an online alumni meet on 26<sup>th</sup> August,2023. The Department invited four senior alumni students, Dr.PN.B.Srinivas (M.Sc Biochemistry 2001-03 batch)Scientist, CuraTeq Biologics, Dr.HarshaKocherla, (M.Sc Biochemistry2003-05) Biomarker and Diagnostic, Associate Director Novartis,Switzerland,Mr.D.Satish, (M.ScBiochemistry,2007-09) Solution delivery

SpecialistManager), Novartis Health care Pvt Ltd and Dr.R.Swapnapriya (M.Sc Biochemistry, 2006-08) Research associate, North Carolina University, USA, to interact with the students and provide career guidance. The alumni students were asked to speak on their career pathsand give their advice and suggestions to the undergraduate and post- graduate students. Dr.PN.B.Srinivas advised students to take up internships in research institutes to gain experience in handling biomolecules. Dr.HarshaKocherla suggested the students to have their own startups with their scientific ideas that could provide employment to others. Dr.Harsha shared in detail his career path starting from his post graduation to his current employment and explained the need to be focused and pursue the career goals. Mr.D.Satish advised the students to identify their strengths that would help them in their interviews and presenting themselves. He outlined his career path starting from his first employment in Vimta Labs and shared his experiences in quality control. He advised the students to develop curiosity in learning techniques and gain knowledge that would be useful to present themselves. A total of 78 undergraduate and postgraduate students attended the online alumni meet. The students interacted well with the alumni and took their valuable suggestions. The programme received good feedback from the students.

## "Millet Lunch Box"

## 23<sup>rd</sup> August to 14<sup>th</sup> September, 2023

The Department of Biochemistry & Nutrition, Bhavan's Vivekananda College, Sainikpuri, has conducted series of events to elevate the usage of millets as the year 2023 was declared as the International Year of Millets by United Nations General Assembly. "Millet Lunch Box" is an event where students were asked to bring recipes made of millets in their lunch box once a week and report in the department. Students from all the departments of the college have participated enthusiastically including various recipes in their lunch box. Six students have brought the millet lunch box continuously for four weeks.

The event emphasized on the practice of millet usage in daily cooking and creating awareness of different millets available locally which can be cooked into delicacies. It has also helped to improve culinary skills of students in developing novel recipes with millets to enhance the nutrient value of the recipes along with bringing awareness that health and taste can coexist. A total of 39 students have participated in this month long event.

## **Department of Biochemistry & Nutrition**

## 18<sup>th</sup> August, 2023

Bhavan's Vivekananda College, department of Biochemistry & Nutrition has taken an initiative to spread awareness by celebrating the "World Breastfeeding Week" on 18<sup>th</sup> August, 2023. An online lecture and an e-poster competition were organized on the theme "Let's Make Breastfeeding and work, work!". Dr. Latha Sashi, Chief Nutritionist and Head, Department of Clinical Nutrition & Dietetics, Fernandez Hospital, Hyderabad has given an online lecture to spread the significance of breastfeeding and importance of provision of special feeding places, lactation breaks, and equipment to store breastmilk in the workplaces. Participants from different colleges presented e-posters after the session, which were judged by Dr. Latha Sashi. A total of 23 e-posters were received, out of which 10 e-posters were selected to the final round. A good number of participants both online and offline have attended the lecture. Overall, the students had an enriching experience of gaining knowledge.

# Department of Biochemistry & Nutrition Health Camp-2023

# 3<sup>rd</sup> and 4<sup>th</sup> of August, 2023

The Medical & Health Committee of BVC in association with the Department of Biochemistry & Nutrition organized a health camp for the teaching, non teaching staff and students of BVC on  $3^{rd}$  and  $4^{th}$  of August, 2023. The health camp was in association with Vimta Labs, Hyderabad. The list of tests in the health camp included Master Health checkup, Complete Health checkup, Extended Health checkup panel, Diabetic screening profile and Sunshine vitamin screening panel. The health camp also included tests like complete blood picture, HbA1C, fasting blood glucose, lipid profile, thyroid profile, calcium, Vitamin D, B<sub>12</sub> levels and other tests as requested in person.

A total of 85 teaching and non teaching staff from the college have got their various parameters evaluated. There were 32 students who got their CBP, Hemoglobins and thyroid profiles checked

while 39 staff members got their Master Health Check that has a list of tests which are done to take care of overall health. While rest of the staff and students have got tested for profiles like Complete Health Checkup or Sunshine vitamin screening and hemoglobin levels showing their awareness and interest in knowing about their health status. Overall, the health camp received a very good response from staff and students and was well appreciated.

## Department of Biochemistry & Nutrition Report of the guest lecture

## on "Career opportunities in Biochemistry and allied sciences" by Dr.Viswanadham D

#### 20<sup>th</sup> July,2023

The Department of Biochemistry & Nutrition organized a guest lecture on " Career opportunities in Biochemistry and allied sciences" by Dr.Viswanadham D, VicePresident and Head, Life Sciences Incubation IKP Knowledge Park, Shamirpet, Telangana on 20<sup>th</sup> July,2023 in the afternoon at 2.30pm. The guest speaker, Dr.D.Viswanadham, provided the students an overview of the career opportunities as Application Specialists, Product Managers, Medical/Scientific Writing Intellectual Property, Corporate/Law firms/KPO, Market Intelligence, Incubator Manager etc.,. He also suggested the students to apply for BIRAC schemes like SPARSH for Social Innovation on few thematic areas like food and Nutrition, Ageing and Health, Waste to value etc.,. Dr.Viswandham also explained few startup projects which were beneficial t o the society. He further advised the students to focus on basic concepts of biochemical calculations to secure admission in research institutes. The students were interactive with the resource person. A total of 45 students attended the lecture.

BHAVAN'S VIVEKANANDA COLLEGE OF SCIENCE, HUMANITIES & COMMERCE Sainikpuri, Secunderabad – 500094 Autonomous College - Affiliated to Osmania University (Accredited with 'A' grade by NAAC)

Department of Biochemistry & Nutrition Webinar on "Career options in nutrition & dietetics"

#### 1<sup>st</sup> July 2023

The Department of Biochemistry and Nutrition has organized a webinar on the topic "Career Options in Nutrition and Dietetics" on 1<sup>st</sup> July 2023. The resource person for the webinar was Dr. Keren Harish Tiwari, Assistant Professor (Sports nutrition), National Sports University, MYAS-GoI, Imphal, Manipur. The lecture was conducted for the undergraduates & post graduate nutrition students of Bhavan's college as well as for outside colleges, aiming to provide a better understanding towards job prospective in nutrition. Dr. Keren spoke about the general structure of higher education for nutrition as a subject, top universities with their specialized nutrition courses and their general admission procedures and career options under four major branches of nutrition.

Dr. Keren also discussed about the importance and job opportunities with respect to sports nutrition course and syllabus of M.Sc. sports nutrition in National Sports University, Imphal, Manipur. There were 140 participants who joined the webinar and actively participated in question and answer session and gave a good feedback about the speaker and the topic which was apt for them.

#### **Department of Biochemistry & Nutrition**

## 23<sup>rd</sup> June, 2023

### **Report on Blood grouping**

The Department of Biochemistry & Nutrition organized a blood grouping camp as a student activity during the induction programme on 23<sup>rd</sup> June, 2023 for students of the college. There was a participation of about 148 students who got their blood group tested. The M. Sc Biochemistry students of Semester II took part in identifying the blood groups under supervision of faculty members.