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Editorial

October is about trees revealing colors they are hidden all years. October the month full of festival, filled with happiness and marked by fun and enthusiasms. This month gives immense pleasure of celebration. Dusshera a festival celebrated for the victory over evil. Deepawali to lighten the darkest day implying that after every darkness there comes a ray of hope as a light enrich showers of happiness in every soul.

October has given India many influential personalities being the birth month of Mahatma Gandhi- statue of peace, Lal Bahadur Shastri who fought for rights of farmers and poor people, World Student Day, birth anniversary of Dr. APJ Abdul Kalam gives the message to everyone that never stop trying until you succeed in your aim whatever the situations are, Sardar Vallabh Bhai Patel who made the people to understand role of inextricable oneness is success of a team.

Along with these celebrations, Institute has observed different academic & extracurricular activities, sessional examination, Inter house competition, photographic sessions etc.

This issue will give you the insight of all these activities with scientific articles dialog box and many more.

Happy Reading

Best Wishes

Editorial Team.

Interhouse Debate

The Inter house Debate Competition was held on 28th November 2017 on the topic Digital India: Need or Dream /अंकीय भारत: आवश्यकता या महत्वकीक्षा

In the English Debate, the 1st, 2nd and 3rd positions were bagged by Pragya of BPT 1st year (Jujhar House), Aadarsh Rana, PCM 2nd year (Fateh House) and Kanika Khanna, B.Pharm 1st Semester (Fateh House) respectively.

In the Hindi debate, the 1st, 2nd and 3rd positions were awarded to Aalind Joshi of B.Pharm 2nd year (Ajit House), Somya Joshi, B.Sc Biotech 3rd year (Ajit House) and Lalita Joshi, M.Sc Biotech 2nd year (Zorawar House).

Fateh House turned the tables to their side by winning the title of Best Debating House.

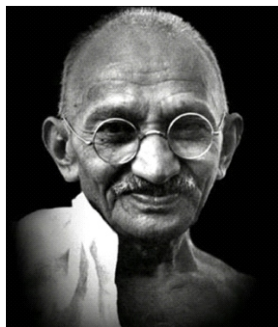


October The Birth Month of Eminent Personalities of India

2nd October- Gandhi Jayanti

He was the apostle of peace, a light of freedom

Salutation to him on his birthday



Gandhi Jayanti is a national festival celebrated in India to mark the occasion of the birthday of Mohandas Karamchand Gandhi, who is unofficially called the "Father of the Nation". It is celebrated on 2nd October. It is one of the four Public Holidays in Indian national holidays of the country. The United Nations General Assembly announced on 15 June 2007 that it adopted a resolution which declared that 2 October will be celebrated as the *International Day of Non-Violence*. Gandhi lived on the path of lifelong truth and non-violence. His theory has been adopted by the whole world. This is the reason why his birthday is celebrated as International Non-Violence Day. Following are some of the inspirational quotes given by him which led the path of non-violence, peace, brotherhood, love, patriotism and affection not only in India but globally:

"The greatness of a nation can be judged by the way its animals are treated"

"Morality is the basis of things and truth is the substance of all morality"

"The best way to find yourself is to lose yourself in the service of others"

"Happiness is when what you think, what you say, and what you do are in harmony"

"Live as if you were to die tomorrow. Learn as if you were to live forever"

"You must be the change you wish to see in the world"

"The weak can never forgive. Forgiveness is the attribute of the strong"

"Strength does not come from physical capacity. It comes from an indomitable will"

"Anger and intolerance are the enemies of correct understanding. Mahatma Gandhi"

"In a gentle way, you can shake the world"

2nd October- Lal Bahadur Shastri

Lal Bahadur Shastri was the second Prime Minister of independent India. He took oath after the sudden demise of Jawaharlal Nehru, the first Prime Minister. Relatively new to the high office, he led the country successfully through Indo-Pakistan War in 1965. He popularized the slogan '**Jai Jawan Jai Kisan**', recognizing the need for self-sustenance and self-reliance as the pillars to build a strong nation. He was a man of exceptional will power that was belied by his small frail stature and soft-spoken manner. He wished to be remembered by his work rather than well-rehearsed speeches proclaiming lofty promises.



15th October- Worlds Students Day

Dr. Avul Pakir Jainulabdeen Abdul Kalam or I should say Dr. APJ Abdul Kalam the inderible name.

Not all people in the world get the tribute of being loved by everyone but Dr. APJ Abdul Kalam was one such person whose mark remains in everyone's heart. He was not just a one person he was an army whose



mammoth contributions to our motherland is a stepping stone towards indigenization of India. His dream was to let every student to light up the sky with victory using their latent fire in the heart. His only proposition was to dream, dream and convert these into thoughts and later into actions.

For a science student , You'll be alive as a Great Scientist For a Politician You'll be alive as a Great Leader For a writer You'll be alive as Great Motivator and For a Whole World You'll be alive as a Great Person.



31st October

Sardar Vallabhbhai Patel is a revered name in Indian politics. A lawyer and a political activist, he played a leading role during the Indian Independence Movement. After independence, he was crucial in the integration of over 500 princely states into the Indian Union. He was deeply influenced by Gandhi's ideology and principles, having worked very closely with leader. Despite being the choice of the people, on the request of Mahatma Gandhi, Sardar Patel stepped down from the candidacy of Congress President, which ultimately turned out to be the election to choose the first Prime Minister of independent India. He was the first Home Minister of Independent India and his uncompromising efforts towards consolidation of the country earned him the title 'Iron Man of India'..

Lifetime Achievement Award



Prof. Versha Parcha
M.Sc, MPhil, PhD (Chemistry)

Prof Versha Parcha, Head, Department of Applied Chemistry has more than 20 years teaching and research experience. She has authored six books and has published more than 85 research papers in national & international journals. Thirteen students have been awarded Ph.D. degree under her supervision where as 10 students are pursuing Ph.D. She has also acted as a reviewer, editor and advisor in various journals . She is the member of Board of Studies for Uttarakhand Technical University & HNB Garhwal University, Srinagar. Prof. Versha has successfully completed three major projects funded by Ministry of Science & Technology, Ministry Of Health & Uttarakhand Council of Science & Technology with grant of more than 22 lacs Recently one project entitled “Enzymatic intervention for quality improvement of essential oil from *Cyperus scariosus* and *Zanthoxylum armatum*” in collaboration with Dr. Rashmi Singh, Scientist E, Dept of Chemistry, Forest Research Institute, Dehradun is sanctioned by Ministry of Environmental Sciences (ICFRE Dehradun) worth 12 lacs. Three products Debicare, Dabisip (antidiabetic formulations) and one antifungal formulation Alseogel is in commercialization phase. Recently, She has been awarded Life Time Achievement Award during 2nd inter National Conference (RAPCS 2017) held on 4 &5 Oct. 2017 on Research Advancements in Pharmaceutical and Chemical Sciences organized by DCM Edutech in collaboration with LM College of Pharmaceutical Sciences, Modinagar for her contribution in the field of natural products .

Student Column



Role of Fungal Biomass in n-hexane Biofiltration

The Biofiltration of n-hexane is studied to optimize determinant factors of hydrophobic Volatile Organic Compounds (VOCs) filtration efficiency. Four trickle-bed air biofilters (TBABs) were employed; two of which were supplied with nutrients buffered at a neutral pH, while another two at an acidic pH of 4 to induce and enhance fungal growth. The loading rate of n-hexane was kept constant in all TBAB at 13g/m³/h. Utilization of VOCs has been continuous to be prevalent in industry. Uses of VOCs range from the manufacturing of adhesives to a variety of different products. There are several traditional

methods of VOC reduction which include:-

- (i) Incineration
- (ii) Adsorption
- (iii) Catalytic oxidation

Recently, biofiltration has become a more viable option for VOC treatments as it provides an environmental friendly and low cost alternative to current industrial methods. *Van-Groenestijn* was the first to show the role of fungi as a Microorganism Consortium that has the ability to improve the performance of biofiltration. Since several studies have come to conclude that fungi are correlated with increased VOC metabolism, however, all indicate changes in biomass diversity with respect to time and condition. In this study, the microbial fungi culture of four TBABs operating under different conditions to remove a mixture of methanol & n-hexane as a single feed, was studied.

Sonali Singh

B.Sc.MM (2nd YEAR)

Edited by

Simranjeet Kaur (B.Sc. Biotech. III Sem.)

Six weird but true facts about DNA

Bananas and humans share half of the same DNA which indicates humans are 50% identical to bananas

Our DNA is amazing. And over the years scientists have discovered some stunning facts.

Here are 6 weird but true facts about DNA.

1. Your DNA could stretch from the earth to the sun and back ~600 times.

If unwound and linked together, the strands of DNA in each of your cells would be 6 feet long. With 100 trillion cells in your body, that means if your entire DNA were put end-to-end, it would stretch over 110 billion miles. That's hundreds of round trips to the sun!

2. We're all 99.9 percent alike.

Of the 3 billion base pairs in the human genome, only 0.1% is unique to us. While that 0.1% is still what makes us unique, it means we're all more similar than we are different.

3. Genes make up only about 3 percent of your DNA.

Genes are short segments of DNA, but not all DNA is genes. All told, genes are only about 1-3% of your DNA. The rest of your DNA controls the activity of your genes.

4. A DNA test can reveal you're more Irish than your siblings.

Your sister could be much more Irish than you. And this is true for any of over 150 ethnic regions covered by the Ancestry DNA test. So your sibling could also be more (or less) British, Nigerian, or Scandinavian, Indian than you

5. The human genome contains 3 billion base pairs of DNA.

DNA molecules are shaped like twisted ladders. And the rungs on that ladder are made of bases adenine (A), cytosine (C), guanine (G), and thymine (T) locked together in pairs with hydrogen bonds. The really cool part is, they pair up in a very specific way: 'A' always pairs with 'T,' and 'C' always pairs with 'G.'

6. Your DNA could link you to places you'd never imagine.

Genetics has the power to tell you things you never dreamed of knowing, from just the DNA in your saliva.

With an AncestryDNA test, for example, you can find out which world regions your ancestors may have lived in hundreds to thousands of years ago, what bonded them over generations, and why and where they migrated all from your DNA.

Photograph of the Month



Courtesy: Dr. Nidhi Belwal
Deptt. of Microbiology

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