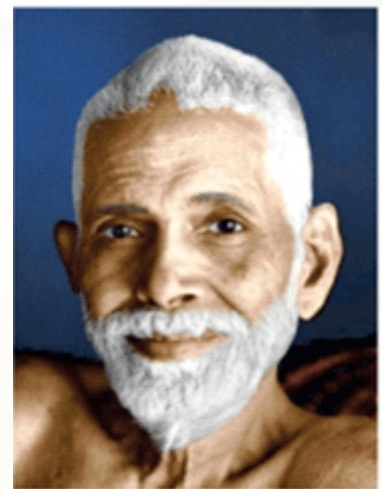




DEI MONTHLY NEWS

"God, grace and guru are synonymous, eternal and immanent....To me there is no distinction. Grace is flowing like the ocean, ever full. Everyone draws from it, according to his capacity. How can one who brings only a tumbler complain he isn't able to take as much as another who has brought a jar?"



— Ramana Maharshi

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Section A : DEI

International Conference DSC-NSC 2023 Organized at DEI



Radhasoami Satsang Sabha, Dayalbagh, Agra and Dayalbagh Educational Institute (Deemed to be University), Dayalbagh, Agra, organized an International Conference- The 5th International 'Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC) jointly with the 46th (Inter) National Systems Conference (NSC) on 27 – 29 June 2023. The theme for this Conference was 'Evolution of Homo Sapiens to Homo Spiritualis for Better Worldliness.'

The Conference was attended by renowned experts, scientists, plenary speakers, keynote speakers, delegates, researchers, and students from all over the world. On this momentous occasion, the Inaugural 'Vision-Talk' was delivered by Revered Prof. Prem Saran Satsangi Sahab, Chairman, Advisory Committee on Education (a non-statutory body serving as a think-tank for DEI) in which He highlighted the success of the Dayalbagh model of education in real-life circumstances which are complex in nature. Following the Vision Talk, Dr. Arsh Dhir made a presentation entitled "Role of Communities in Achieving Sustainable Development: A Case Study." He discussed the Dayalbagh and DEI model of holistic sustainability with an emphasis on the Trinity of physical, mental, and spiritual perspectives, maternity to eternity, healthcare and eco-habitat, women's empowerment, reaching out to the last, the least, the lowest, and the lost.

Earlier, the Conferences commenced with the 'Opening of the Conferences Session' by Inaugural Remarks of Prof. Dr. Anand Srivastav, Coordinating Organizer, DSC, Kiel University, Germany. Prof. (Dr.) Sarup Rani Mathur, Co-Chair (West) DSC, Arizona State University, USA., Prof. (Dr.) Apurva Narayan, Co-Organizer DSC, University of Western Ontario & University of Waterloo, Canada, and Prof. (Dr.) Prem Kumar Kalra, President Systems Society of India, Indian Institute of Technology, Delhi. In his Inaugural Talk entitled "Civilization and Culture: The Advent of Conscientiousness," Prof. (Dr.) PK Kalra, Director, Dayalbagh Educational Institute (Deemed to be University), Agra, traced the development of ideas on ethics, social sensibilities, and values, highlighting the personality traits of conscientiousness and how they contribute to culture and civilization.

During the other sessions of the Conference, several other distinguished and internationally acclaimed experts, as well as young researchers, delivered their talks or presented their research on topics related to Eastern and Western perspectives on Consciousness, Neuroscience, Mindfulness, Self-awareness, Spiritual Consciousness, Energy Systems, Esoteric Systems Environment Systems Transportation Systems Education Systems Mathematical Systems Information & Communication Systems Biological Systems Healthcare Systems Quantum and Nano Systems Agriculture & Dairying Systems Consciousness based Systems Smart Villages/Cities Literary and Social Systems Values and Quality based Systems Super-intelligent Systems, etc. In the end, a Joint Panel Discussion, a Consensus Building Session, and a short Cultural Programme were held, bringing the Conferences to an immensely fruitful conclusion.

Celebration of the Birth Anniversary of Gurudeva Rabindranath Tagore



7th May 2023, the 162nd birthday of Gurudeva Rabindranath Tagore, “the Bard of Bengal,” was celebrated by the Centre for Art, Beauty and Creativity at 'Anupam Upvan' Campus of the Institute. The Ceremony was inaugurated by Prof. Prem Kumar Kalra, Director of the Institute, who wished success to all. The main speaker of the programme, Prof. Gopalji Pradhan, Ambedkar University, Delhi while speaking on the topic "Educational Philosophy of Rabindranath Tagore" opined that Tagore was an exclusive supporter of world humanity. He considered the structure like lines or boundary walls in the structure of universities to be meaningless and a hindrance to knowledge. That is why he conceptualized Visva-Bharati, where he dreamt of such a temple of education that is devoid of any doors or walls.

The Chief Guest of the Programme, Mr. Anand Kumar, City Magistrate, Agra, said in his address that we will be able to achieve the real goal of education only by adopting the education policy of Rabindranath Tagore. Programme Coordinator of the Centre for Arts, Beauty and Creativity, Dr. Premshankar, keeping the outline of the programme before the audience, remarked that Gurudeva Rabindra considered spirituality, education, and artistry necessary for building social consciousness.

The highlight of the Programme was the Yoga and Meditation Camp under the fresh rays of the sun beneath the open sky in the picturesque natural environment of 'Anupam Upvan'. The yoga session was conducted by Mrs. Sangeeta Sinha. After that, students of various faculties of DEI, Prem Vidyalaya and REI, performed *shramdaan* and also took a pledge that they would always be ready to preserve and save Nature. After *shramdaan*, various cultural programmes were presented by the students. These programmes included Rabindra Sangeet, folk singing, musical instruments, on-the-spot painting, posters, street plays, elocution, etc. The students participating in these activities were felicitated and certificates were distributed to them. The Convener of the Programme was Prof. Lovely Sharma, Head, Department of Music, Faculty of Arts, DEI.

International Yoga Day Celebrated at the Institute



On 21 June, 2023, International Yoga Day was celebrated at the Institute with tremendous zeal. During the organization of the event, a Guard of Honour was accorded to the Chief Guest, Shri Mayank Jyoti, Deputy Transport Commissioner, Agra, by NCC cadets. The Chief Guest opined that Yoga is necessary for the health of the body and mind of every person. He also stressed that besides doing yoga, it is also important to

do it in the right way. This was followed by a Yoga Training Session, in which training was given by yoga gurus Smt. Sangeeta Sinha and Shri. Abhinav Sinha. Prizes were also given away to the participants performing the best *Yogasanas* in which, Dr. Parul Bhatnagar, Ms. Kaushiki Verma, and Shri Ramsevak received the first, second, and third prizes respectively. About 200 people performed *Yogasanas* together. At the end of the Programme, the Vote of Thanks was given by Prof. Akshay Kumar Satsangi, Regional Coordinator, Unnat Bharat Abhiyan. The Programme was compered by Dr. Nishith Gaur. On this occasion, Registrar of the Institute Professor Anand Mohan, General Manager of Amar Ujala, Mr. Vishal Arora, Deans of various Faculties, Heads of Departments and NSS Officials, Dr. Suneshwar, Dr. Sanil, Dr. Ishwar, Dr. Rajneesh, Dr. Bhavna, Dr. Namasya and Dr. Namita were among those present.

Why is (i-c-n-c) TALL conspicuous by its absence in the aforesaid narrative?

FACULTY NEWS

FACULTY OF EDUCATION

DEI SIGNS MOU WITH DIET

To foster academic cooperation in education and research, Dayalbagh Educational Institute (DEI) and District Institute of Education and Training, Agra signed a Memorandum of Understanding (MoU) on May 26, 2023. This MoU will encourage the exchange of faculty, students, academic information, and materials with the belief that the research and educational processes at both ends will be enhanced and that mutual understanding between the faculty and students will be increased with the establishment of such exchanges.

- A Five-day International Workshop on “Innovative Practices in Research” was organized by Faculty of Education, under Pandit Madan Mohan Malviya National Mission for Teachers, and Teaching, Ministry of Education, Govt. of India on 17-19 April 2023 at School of Education, DEI, Agra. The resource persons were, Dr. Nikhil Sharma, Research Associate at McMaster University, Canada, Prof. Pravin Saxena, Department of Accountancy & Law, DEI, Mr. Nishant, Research Scholar, Education Faculty, DEI, Prof. Asheesh Srivastava, Dean, School of Education, Mahatma Gandhi Central University, Bihar, and Prof. C.B. Sharma, Director, School of Education, Indira Gandhi National Open University (IGNOU). A total of 118 participants attended the Workshop in Hybrid mode. The workshop was convened by Dr. Preeti Manani and Dr. Priti Sharma.
- School of Education, DEI, hosted a Two-day National Conference on the topic “Cultivation of Cultural Pride, Art, and Education” on 19- 20 May 2023 under the PMMMNMT, Ministry of Education. Prof. Jyotsna Tiwari, NCERT, in her keynote address, explained the components of NEP 2020 which lay emphasis on the development of Cultural Pride, Art, and Education. Prof. Aanshwana Saxena, Agra College, Agra. gave her talk on 'Global Aspects of Integration of Art and Culture in Education. Prof. Tanuja Agarwal, K R PG College, Mathura. delivered her talk on “Cultivation of Indian Culture and Education.' In the Valedictory Session, the Keynote Speaker Prof. Seema Bansal, T R PG College, Aligarh delivered her talk on, 'Music, Art and Beauty in Ancient India.' 58 participants from India and abroad presented their research papers in various sessions. Dr. Manu Sharma and Dr. Kalpana Gupta convened the Conference.
- School of Education also hosted a Three-day National Workshop on “Teaching of Mathematics and Science through Puppetry” from 25-27 May 2023. Dr. Manu Sharma trained in-service and pre-service teachers in making stick, shadow, and glove puppets and integrating puppetry art into mathematics and science teaching. A total of 30 participants attended the Workshop.

Staff News:

- Dr Sona Dixit was invited to participate as Resource Person in the International Workshop on 'Research Paper Writing and Teaching Pedagogy' organized jointly by the Department of Tourism and Management, Dr B R Ambedkar University, Agra and the Department of Management, Howard University, Washington D.C. on May 5, 2023. She acted as an expert in the Group Discussion on 'Assessing Open Science: Focus on the Open Engagement of Societal Actors and Open Dialogue with Other Knowledge Systems' organized by the UNESCO on May 9, 2023. She also participated in a Panel Discussion on 'Impact of Digitalisation on the Future of Higher Education' in a Global Survey of Digital Transformation in the Education Industry hosted by Times Higher Education (THE), London on May 24, 2023.
- Dr. Neha Jain and Dr. Neetu Singh presented a paper on “An Exploratory Study of Techno Pedagogical Skills and Happiness of Prospective Teachers in Relation to Generative AI” at an International conference organized by Kaunas University, Lithuania, on May 12, 2023.

DEI Technical College

Staff News: Mr. Ram Singh and Dr. Mukesh Gautam of DEI Technical College were invited as Resource Persons at Mathura Refinery, an Indian Oil Corporation Limited (IOCL) Unit, on 2 May 2023, for the One-Day Training Programme on 'Hands-on Engineering Drawing' organized for the Boiler Operations Engineer (BOE) aspirants. The BOE aspirants from other Refinery Units of IOCL across India also joined the Training Programme in online mode.

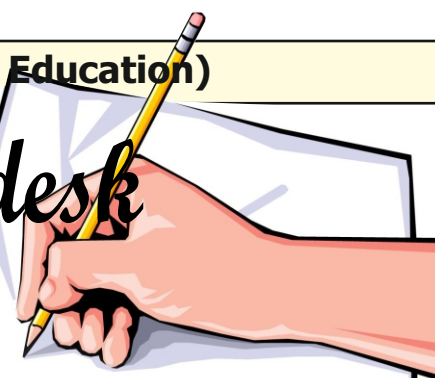
**DEI Prem Vidyalaya:**

New Students Cabinet takes Over: On May 2, 2023 elections were held to elect Representatives of Students. In this process, students participated very enthusiastically and learnt the democratic values of India. Following are the Central Cabinet members of Prem Vidyalaya: Ms. Chhabi Bhandari- Head Girl, Ms. Neha Yadav- Joint Head Girl, Ms. Tamanna Satsangi- Discipline In-Charge and Ms. Dhun Aadhar- Social Service In-Charge.

Staff News: A seminar was conducted by UP Government on 'Dog Matters' on April 20, 2023, in Lucknow, UP. Dr. Surat Prasad Gupta an Honorary Teacher of DEI Prem Vidyalaya was invited to speak in this seminar. She gave her valuable thoughts which represented the point of view of animals. Currently, she is associated with People for Animals, Agra (PFA Agra). The presentation made by Dr. Surat Prasad was highly appreciated by the audience.

Section B: DEI-ODE (Online & Distance Education)

From the Coordinator's desk



The following two recent newspaper headlines dealing with higher education in India caught my attention:

- (i) The first appeared in The Times of India of May 19, 2023 and stated: '29 of top 64 Indian varsities slip in the year's global ranking'. These include IISc, Bangalore dropping from rank 491 to 494; IIT, Madras from 559 to 570; TIFR from 563 to 580, University of Delhi from 591 to 621, etc. The study was made globally across 20,531 universities by the Centre for World University Rankings (CWUR) and was based on four factors, viz. quality of education (25%), employability (25%), quality of faculty (10%), and research performance (40%). The decline in research performance of these universities is reportedly the main cause of the drop in ranking and inadequate funding has been pin-pointed as the cause of the performance deficit.
- (ii) The Indian Express' of July 5, 2023 carried a write-up by Amitabh Sinha which deals with the 'State of Science Research'. It is stated in this article that while India has a large pool of science and engineering students and is involved in frontline research areas globally, it fares poorly on several key parameters like (a) expenditure on Research & Development, which has shown steady decrease from 0.76% of gdp in 2011-12 to 0.64% in 2020-21, while it is 5.35% in Israel, 4.89% in South Korea, slightly more than 3% in Sweden, Belgium, USA, Japan, Austria, and Germany and 2.91% in Finland, and (b) Researchers per million population which is 262 in India as opposed to 8342 in Israel, 4821 in USA, 4684 in UK, 1585 in China and 888 in Brazil, etc.

National Education Policy 2020 had recommended the establishment of a new National Research Foundation (NRF) for catalyzing quality academic research in all fields. The government approved this proposal only recently 3 years after NEP 2020 was launched.

Amitabh Sinha in his write-up on 'State of Science Research' adds: India has nearly 40,000 institutions of higher education, mostly colleges. More than 1,200 of these are full-fledged universities. Only one per cent of these engage in active research, according to the detailed project report on NRF. A comparative number for other countries is not available, but it is common knowledge that in most leading countries, universities are centres of research and development activities.

“If I am asked to single out only one area in which I would like to see NRF make a difference, it would be here – in coupling education and research. This is the biggest anomaly that exists in the Indian system. And it is unsustainable. So, the NRF concept puts a great amount of emphasis on rectifying this.” Professor Arindam Ghosh of Indian Institute of Science, Bangalore said.

This is an age of competition and in today's scenario obtaining a high rank by an institution of higher education is not an option but a necessity. Research carries high weightage in most ranking procedures and it is now accepted that good research results in a number of benefits like it improves teaching, attracts high quality faculty and students, etc. Good quality research resulting in high quality publications in high impact factor journals is a necessity from which there is no escape.

(Prof. V.B. Gupta)

It is extremely surprising, why the continuing worthwhile contribution of (i-c-n-c-) TALL, in the Department of English Studies, privileged by the worthwhile recognition of its publication, not only in highly recognised & refereed impact factor journals; but also in the grant of several patents, duly recognised by the Republic of India, both in private and public sector industry (say for 20 years or more), have been relegated to almost insignificant and irrelevant position (vide the relevant High Court & the Supreme Court of India Rulings on the Subject of imposing penalty increase in respect of enhanced rates with retrospective effect and the punitive imposition of penalties, once again with retrospective effect by NCDRC, in accordance with the CBI Enquiry and Two-Judge/Three-Judge Bench of the Supreme Court of the Republic of India (through its OSD))!

News From Information Centres

Dayalbagh Manufacturers' Exhibition-cum- Sales Organized at ICT Centre-Bangalore



Bangalore Centre organized an 'Exhibition- cum- Sale' on 3 June 2023 of various products made by DEI students under the supervision of faculty members in the Exhibition Hall at Tejpunj residential complex. Stalls displayed Posters and Pamphlets showcasing objectives, and various programmes run at the Centre as well as DEI Main Campus, which attracted the attention of the visitors. They appreciated the efforts of the Centre to provide "Value Based Quality Education" at an affordable cost to all sections of society throughout the length and breadth of the country. The event was a grand success.

Guest Lectures on 'Sustainability' Organized by Information Centre- Karolbagh, New Delhi

Informative and inspiring invited lectures were delivered to the Management students of Karol Bagh Centre on sustainable development and growth. The topics included *Importance of Millets* by Mrs. Simi Grover (delivered on 14th May, 2023) highlighting the importance of including millets in meals, and its benefits like high nutrition value, rich in fibre, gluten-free, and low glycaemic index, promoting better digestion, blood sugar control, and overall sound health. Another lecture was delivered on 21st May, 2023 on the topic, *What does India need to do to become a superpower?* by Mr. Saurabh Kumar. The focus was on economic growth, infrastructure development, education, and innovation to become a global superpower. It was also advised that the students adopt careers of their interest so that they will be able to contribute to the country's development.

International Yoga Day Celebrated at DEI Information Centre, Karolbagh

International Yoga Day was celebrated on 21 June 2023 at DEI Karolbagh Centre, New Delhi. A session of important Yoga Asanas and meditation was conducted. The present members were also encouraged to perform Yoga Asanas simultaneously. They were apprised of the benefits and importance of performing Yoga regularly, such as improvement in physical strength, balance, flexibility, maintaining mental health, etc.

Internship Training in Textile Designing & Printing Conducted at Kurnool Centre



DEI Information Centre Kurnool provided the internship training in TD&P course to the students of KVR Govt. College for Women at Kurnool for 3 months at the Centre. An MoU with KVR GCW(A) had been signed regarding this Internship training programme. In the last week of this training programme on 27 June 2023, the Centre conducted an Exhibition cum Sale of the products designed and made by these students at KVRGCW(A) which is centrally located in the town. Chief Guest Prof. D.V.R. Sai Gopal Garu, Vice-Chancellor, Cluster University, Kurnool, inaugurated the Exhibition. Prof D.Srinivasulu Garu, Registrar, Cluster University, Dr M. Indira Shanthi, Principal of KVR GCW(A), Dr. Aarti Chakra, HOD of Home Science dept at Cluster University, and all the Mentors and Facilitators of DDT, TD&P and OACO, along with other staff and students of the Centre were present at the function.

The Vice-Chancellor addressed the Internship students and praised the workmanship of the products which were exhibited in the Sale. He appreciated the Trainers of the Centre. The total value of the products made by the students such as Cotton Block Printed Tops, Chunnis, Screen printed Tops & T-shirts, Scarfs, Printed Table cloths, Tie & Dye Cotton Sarees, Dyed & Printed Sarees, amounting to Rs30,000, were sold. The Principal of KVR GCW(A) thanked the institute for giving excellent training and appreciated the trainers. The news was well covered in the local newspapers.

Exposure Visit to Dayalbagh Educational Institute's NABARD's Centre Conducted



Dayalbagh Educational Institute (DEI) has been extensively working with National Bank for Agriculture and Rural Development (NABARD) for sponsoring the Livelihood and Entrepreneurship Development Programmes for the women of villages around Dayalbagh. Recently, an Exposure Visit was organized in which DDM Lakhimpur Mr. Prasun Sona, Bandana Singh, Chairperson, Muhammadi, Block Lakhimpur Khedi and other officers of NABARD along with 40 S. H.G ladies, visited DEI Campus on 8 July 2023 and DEI NSS Medical Camp at Baikunth Dham on 9 July 2023. The main objective of the Exposure Visit was to show the Skilling, Vocational Training and Incubation Centre of DEI and tell about how the beneficiaries are becoming self-sufficient by earning their livelihood after receiving quality training at DEI Skill Centre.

Three programmes were conducted under this Exposure Visit in which Dr. Sachin Saxena and Dr. Yogita Jain, Faculty of Waste Management Programme, gave training on the process of making handmade paper and its various applications. Kumari Pooja, a research scholar at Dept. of Home Sc., explained about Zardozi art, how it is done, what materials are used, how to apply Adda, and also showed various designs of Zardozi. The ladies discovered various benefits of learning Zardozi and how one can improve the livelihood of the family by doing Zardozi. Mrs. Shikha Chopra, the instructor from IK's "Handicrafts Technical Training cum Incubation Centre", thoroughly explained to them the process of becoming proficient in block printing, including management, costing, designing, product development, and quality control. A video was shown, in which the process from binder and colour-making to printing and packaging was explained in detail.

Section C: DEI Alumni (AADEIs & AAFDEI)

From the Editor's desk

As parts of Northern India lie submerged, manifest in the raging waters of our rivers, is Nature's fury, an ominous sign that when we wage a war with Nature, we must lose. Hundreds of travellers remain stranded due to flooded rivers, landslides and broken bridges. Many states have banned the entry of tourists specially to waterfall sites. Instead of giving in, to the selfish need to ravage and plunder, there is an urgent need to conserve and protect. Maybe then we will be able to live in Cooperation and Harmony with Nature; and with other species, who have an equal right to share this world with us. The 'Alumni Bytes' in this issue, highlight the multifaceted education provided at DEI, and the invaluable life skills it imparts.

If we want our students to excel, we must equip them with a set of skills that make them self-reliant and competent in every way. Research in Medical Science continues to throw new light on ways to remain healthy. The Health Care Habitat at Dayalbagh offers a healthy way of life to those who belong to it; imparting them with physical and mental strength; and more importantly Inner Contentment and Spiritual Bliss: (Forever & Ever)

Adrenal Gland & Its Hormones

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In this article, the physiology and anatomy of the adrenal gland is described in brief with emphasis on its clinical significance. We hope the following write-up on a biomedical subject will prove useful even to readers not well acquainted with medical terms.

The human body has two major control mechanisms:-

- The nervous system
- The endocrine system

The nervous system can control and communicate rapidly with other systems; while the endocrine system communicates with the help of chemical agents namely hormones secreted by endocrine glands and reaching blood directly without any duct, therefore also called ductless glands. It is a much slower system; however, its effects may be more long-lasting and sustained. One of the important and principal endocrine

glands of the body, is the adrenal/suprarenal gland. The two lie on the upper pole of the kidneys and are therefore called suprarenal. The right gland is pyramidal in shape and the left is crescentic. The outer part of the gland is called the cortex forming the main mass of the gland. The inner part of the gland is called the medulla which forms only about 1/10 th of the gland & it secretes adrenaline and noradrenaline.

The two parts are absolutely distinct from each other structurally, functionally and developmentally. The two adrenal glands weigh about 4 gms each.

The adrenal cortex secretes an entirely different group of hormones called corticosteroids.

The adrenal cortex in an adult comprises three distinct zones:-

- Zona glomerulosa – secretes mainly minelcocorticoid
- Zona fasciculata – secretes mainly glucocorticoid
- Zona reticularis – mainly sex steroids

Adrenocortical hormones are steroids derived from cholesterol. Glucocorticoids and mineralocorticoids are an indispensable part of the human body. An adrenalectomized animal cannot survive prolonged fasting and stress & dies due to hypoglycaemia and inadequate adenosine triphosphate (ATP), the energy molecule generation, which influences the passage of fluids and electrolytes through the cell membrane. Changes in the nervous system in adrenal insufficiency include personality changes, irritability, apprehension, & inability to concentrate. The cortical secretion often increases greatly in stressful situations like trauma, infections, intense heat or cold, surgery, and any debilitating disease.

ADRENAL MEDULLA

It is composed of chromaffin cells and in between these cells are autonomic nervous ganglia. Chromaffin cells secrete adrenaline and noradrenaline. The cells are called chromaffins as they have an affinity for chromium stains. Adrenaline and noradrenaline are called catecholamine & help in "fight or flight" response and also assist in meeting metabolic requirements of the body in hypoglycemic emergencies.

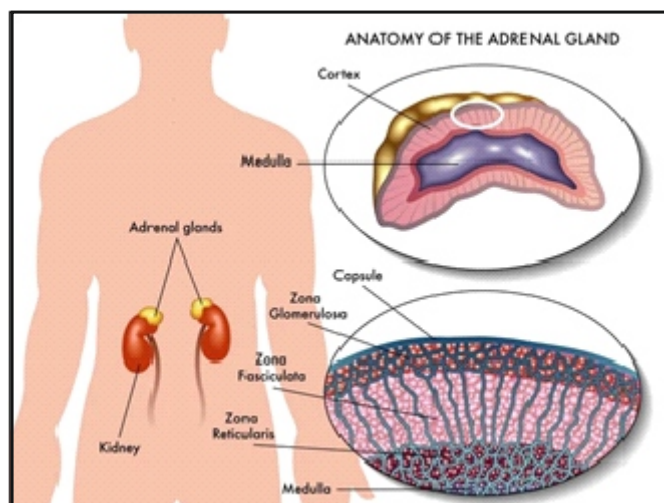


Figure : Microscopic structure of Adrenal gland

Medullary Hormones

The adrenal medulla mainly secretes:-

1. Epinephrine (adrenaline) – major secretion
2. Nor- epinephrine – (nor-adrenaline)
3. Dopamine – the types of cells that secrete dopamine are not known and are very less in number.

The sympathetic activation increases the level of both Epinephrine and Norepinephrine in the blood.

PHEOCHROMOCYTOMA

It is a tumor of adrenal medulla that occurs due to increase (hyperplasia) in size & number of chromaffin cells which causes excessive release of adrenaline and nor-adrenaline leading to features like sustained high blood pressure, hyperglycemia, loss of appetite, loss of body weight, tachycardia, palpitation, severe headache, extensive anxiety and perspiration.

Diagnosis: - Detecting increased concentration of catecholamine in blood, urine, and/or saliva.

Treatment: - Surgery

Effects of Dopamine: -

1. It increases systolic blood pressure without any alteration in diastolic blood pressure.
2. Dopamine is utilized often in Intensive care unit (ICU) settings in critically ill patients.

CLINICAL SIGNIFICANCE OF ADRENALS

1. Deficiency of cortisol secretion results in Addison's disease (low blood pressure, muscular weakness, anaemia, pigmentation of skin).
2. Excessive cortisol secretion results in Cushing's syndrome (obesity, diabetes mellitus, hirsutism and hypogonadism).
3. Excessive androgen may cause:-
 - i. masculinization (virilism) in women.
 - ii. feminization & breast enlargement in men (due to excessive androgen being converted to estrogen).
4. Bilateral surgical removal of adrenal glands done in some advanced stages of breast cancer.
5. Benign tumors of adrenal medulla (pheochromocytoma) have been described above.
6. Adrenal glands can be visualized radiologically by CT and MRI.
7. Clinical diagnosis is made by history, biochemical tests, & radiological investigations.
8. The diurnal (circadian) rhythm in ACTH secretion.

In humans these hormones are not secreted constantly throughout the day. ACTH is secreted in irregular bursts throughout the day and plasma-cortisol tends to rise and fall in response to these bursts. In humans the bursts are more frequent in the early morning and about 75% of the daily production of cortisol occurs between 4 am and 10 am. The bursts are least frequent in the evening.

This diurnal circadian rhythm in ACTH secretion is present in patients with adrenal insufficiency receiving constant doses of Glucocorticoids. It is not due to the stress of getting up in the morning, traumatic as they may be because the increased ACTH secretion occurs before waking up. If the “day” is lengthened experimentally to more than 24 hours, that is, if the individual is isolated and the day's activities are spread over more than 24 hours, the actual cycle also lengthens, but the increase in ACTH secretion still occurs during the period of sleep. The biologic clock responsible for the diurnal ACTH Rhythm is located in hypothalamus (Genong's Review of Medical Physiology, Ref. No 5). During severe stress, the amount of ACTH secreted exceeds the amount necessary to produce the maximal glucocorticoid output.

The above review by Genong is of significance for the Satsang Community as we are supposed to wake up early in the morning for Satsang /meditation /field work etc where the ACTH Bursts are more frequent in the early mornings. Therefore, diurnal /circadian rhythm is a subject to be studied at different hours of the day.

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21st Century Skills for the Emerging Economy

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The 21st century is distinctively marked by the ever-changing advancements in the technological field and rapid digitalization in every space. Globalization is giving rise to emerging economies, especially in the service sectors and knowledge-based industries. Additionally, environmental awareness and its issues, have led to a need for sustainable practices. What emerges is the necessity to equip the transformative generation of adolescents and youth of today with the skill set, knowledge, and the right attitude to succeed in the 21st Century.

The National Education Policy 2020 also emphasizes the fundamental need for 21st Century Skills enunciating a significant leap towards a policy and governance ecosystem for the facilitation of these skill sets among the country's youth. So, what then constitutes the 21st Century Skills? The World Economic Forum (WEF) has suggested a set of competencies for the 21st century in its WEF Framework. These are some skills that can equip today's youth with the adeptness needed to survive and thrive in a rapidly evolving world.

The Framework essentially has three components.

1. Foundational Literacy: This represents how the youth can apply core skills to everyday tasks. These include literacy, numeracy, scientific literacy, financial literacy and civic literacy.
2. Character Qualities: These describe how the youth approach their changing environment. These qualities are curiosity, initiative, persistence, adaptability, leadership, and social and cultural awareness.
3. Competencies: These describe how students approach complex challenges. This includes the 4Cs of critical thinking, creativity, collaboration and communication.

The above skill sets are by no means exhaustive. Entrepreneurship, innovation, global awareness, ethical responsibility, sensitivity, and self-direction are some of the other desirable traits that the youth of today could inculcate to enhance their employability and make a positive impact on society.

Developing these 21st-century skills in today's youth requires a shift in teaching practices from a traditional teacher-centered approach to a more student-centered approach that emphasizes active learning and collaboration. Notably, the DEI Education Policy of 1975, framed by the August Founder of Dayalbagh Educational Institute, Revered Prof (Dr) Lal Sahab, encompasses several of these skill sets as part of the proposed plan of education via its learner-centric approach of Adhyayan, Seva and Vyayam.

Alumni Bytes...

“The biggest takeaway from education in Dayalbagh is...”

“...the invaluable blend of academic excellence and character development. The institute transformed me from an introvert to a well-rounded personality through its diverse curriculum and emphasis on interdisciplinary learning, cultural education and social service, instilling in me the values like diligence, perseverance and discipline. Above all, it taught me the essence of Fatherhood of God and brotherhood of man, fostering a sense of compassion and empathy within me.”

- **Guru Priya D. Batch: MBA 2020, Currently, Assistant Process Lead - HR, SRF Ltd.**

“... a Blessing which cannot be expressed in words. My six years of college education in Dayalbagh changed me completely as a person. From being a student who never uttered a single word during class interaction in school to being an Assistant Professor, the flip has been magical. Apart from confidence, DEI taught me to work hard and instill no hope of success without putting in the required work. DEI made me experience that working hard can also be pleasurable. Enjoying the path to success is very important to stay focused. So I gained indomitable courage, willingness to work better than before, self-discipline, humility, peace of mind, and happiness...the list is endless...”

- **Tuhina Sharma, Batch: B.A (Hons) English (2001), M.A English (2003), B.Ed (2004), Currently, Entrepreneur.**

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