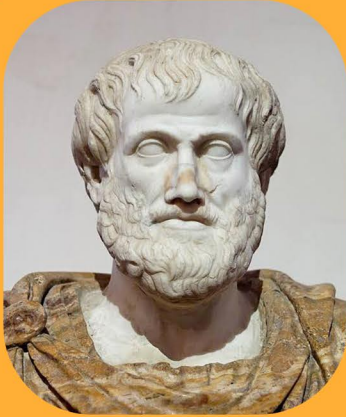




Zoologique



Department of Zoology
B.H. College, Howly



Aristotle

Aristotle is known as the father of Zoology.

Zoology is a branch of biology that deals with animal life, evolution, anatomy, physiology and behaviour.

Aristotle is also known as the father of biology.

He was an Ancient Greek Philosopher. He also gave the first classification of animals.



About Zoologique . .

We present you the 2nd edition of the Newsletter "Zoologique". Zoologique is not just a Newsletter it's a digital window through which we have tried to showcase various aspects of the day to day happenings in the animal life as well as the world surrounding it along with some facts, highlighted news of the current year that we all need to know.

Principal's Desk



It gives me immense pleasure to know that the Department Of Zoology is publishing it's 2nd Volume of the newsletter 'Zoologique' , for the academic session 2023-2024. The publication of newsletter on regular basis reflects the dedication and commitment of the students of the department in particular and teachers in general to showcase the various departmental events and other important contributions in the field of Zoology.

I urge the students of the department to work for the development of innovative skills and new findings to address and understand the problems of the present society.

I convey my best wishes and look forward for such noval initiatives from the Department Of Zoology.

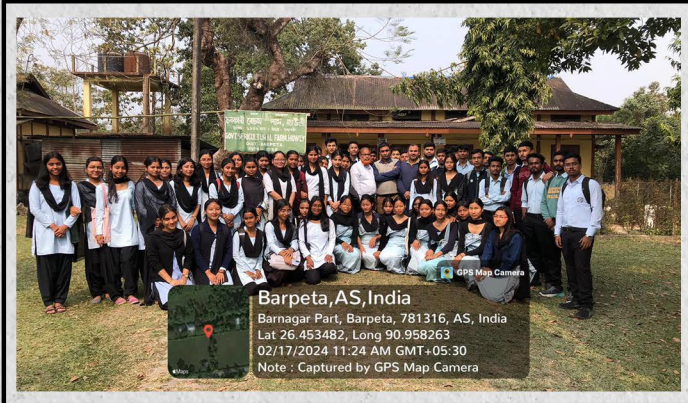
(Dr. B.C. Pathak)
Principal
BH College,Howly

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HAPPENINGS...



Farm visit

The students of 4th and 2nd semester of the department had a farm visit to the nearby sericulture farm on 17th feb 2024.

Cultural rally

The students of the department took part in the cultural rally organized during the annual college week 2023-24 where they showcased the rich cultural heritage of Assam.



Educational Tour

The students of the department were taken to Bogamati for their academic educational tour under the guidance of Dr. Nabajit Das and Dr. Purabi Sharma Baruah.

Workshop

A group of students represented the department on the TWO-DAY INTERNATIONAL WORKSHOP on "Competencies Development For Biodiversity Conservation" held from 22nd-23rd March, 2024.



Wall Magazine

The departmental wall magazine was prepared by a group of students on the well known topic "Apiculture", with "BEE SERENITY" as the theme. The main subject matter showcased includes various tools and techniques used in beekeeping, beekeeping industries, bee disease and their enemies and importance of beekeeping along with different methods of beekeeping.



Freshers Party

The Freshers party of the Zoology Department was organized on 4th of October, 2023 by the students of 5th and 3rd Semester. The professors of the department delivered encouraging words for the freshers. Honourable Principal Sir also presided over the party and extended warm welcome to the freshers. The students of the 1st Semester were given opportunities to showcase their talents and a welcoming atmosphere along with a chance for newcomers to mingle with their peers, faculty, and seniors was provided creating a sense of camaraderie and belonging.



Farewell Party

The farewell party of the department was organized on 11th of May, 2024 by the students of 4th Semester for the outgoing students of 6th Semester. It was a bittersweet occasion where the outgoing students reminisced about their shared experiences and expressed their gratitude. The faculty members along with the students of 4th and 2nd Semester wished the outgoing students luck in their future endeavors and the atmosphere was full of appreciation and encouragement for the future.



SNAKEBITE FIRST AID

There is no clear set of guidelines laid for snakebite first aid. However, the following sets of guidelines are universally accepted by medical practitioners and authorities on snakebite.

- ▶ Do not panic or run, it is necessary to stay calm. Not doing so, would help the venom spread faster. If possible, identify the snake or remember about its features without trying to catch or kill it. A second bite or a second victim will worsen the situation.
- ▶ Report the incident to family and friends and ask for help, immediately. Remove rings or bands or any such things to avoid constriction due to possible swelling as a result of envenomation.



- ▶ Carry the victim- As exercise increases blood flow and venom spread. If you are alone walk as slowly as possible to the nearest point where assistance may be available.
- ▶ Do not waste time in traditional first aid and treatment by local tantric or ojha.
- ▶ Hospitalization and proper treatment at the earliest is must for the victim. The hospital may be informed in advance, and it should have its life supporting system ready.
- ▶ Do not drink alcohol and other stimulants or medicine without advice from a physician.
- ▶ Do not cut or squeeze the injury. Such practices cause more harm than benefit and may prove dangerous.
- ▶ Anti-venom, the only alternative to dangerously venomous snakebite be administered only under doctor's supervision, otherwise it may result in anaphylaxis (severe allergic reaction that may even cause death).



► Avoid tourniquet- it might prove more harmful than beneficial. In case of haemotoxic envenomation a tourniquet may cause excessive tissue damage leading to an amputation.

► Inform the doctor about any of the following signs appearing on the way to the hospital: difficulty in breathing and speaking, drooping eyelids, drowsiness, bleeding from gums or any unusual bruising.



PREVENTION

One can easily prevent snakebite. Those who venture into snake inhabiting areas or live around forest areas should follow the following tips:

- Look where you are putting your feet and hands. Carry a torch at night.
- Never try to catch a snake or kill it. Most of the dangerous snakebites happen while attempting to handle or kill it. Maintain a safe distance from snakes.
- Keep your house, workplace or surroundings mice, rat and toad free, as all of these attract snakes.
- Clean and remove garbage, log, brick pile, firewood, haystack and the places that are preferred by snakes.
- Wear boots (shoes that cover the lower leg) those who work in the forest.
- Avoid sleeping on the ground, if there are snakes around. When reorienting in sleep, even a passing by snake may identify a person as a danger. A snake would only rarely climb on bed.

HOW TO REVERSE DIABETES ?



India has been labeled as the capital of diabetes in the global scale. Due to lack of proper dietary routine and dependance upon high carbohydrate intake.

Two major type of diabetes are: Type 1 diabetes- Also known as juvenile diabetes which is a chronic condition, in which little or no insulin is produced by pancreas. Second one is Type 2 diabetes- Most common type of diabetes, in which cells don't respond effectively to insulin, leading to elevated blood sugar levels. The long-term effects of diabetes include damage to large and small blood vessels, which can lead to heart attack and stroke, and problems with the kidneys, eyes, feet and nerves.

To know how to reverse diabetes we have to understand how insulin works. Insulin is produced by the beta cells of the pancreatic islets. Insulin facilitates glucose uptake by cells, providing energy to vital organs like the brain, heart, and muscles. Out of the three main components - Carbohydrates, fats, protein; carbohydrates are the one on which insulin acts upon. Cells are well fed up with excess amount of energy stored in it which are not used up most of the time but still insulin is storing the energy and converting it into fats. And that is why it's get accumulated in your belly as belly fats.

The first sign of sweet blood is frequent urination, almost 8 to 9 times a day. The power to change this lie within us, the treatment includes two basic steps along with doctors prescribed medication :- Firstly, we have to make the cells exert more energy by doing more physical activity or increasing the basal metabolic rate by building muscles. Secondly, decreasing the amount of food intake, so that we could decrease the amount of sugar that is entering the blood and that can be easily achievable by fasting or low calories and carbs intake. Diabetes is mainly dietary related and the main treatment is diet and not insulin injections. Insulin is just a band-aid. Fasting decreases the amount of food coming in and amount of calories, resulting in lesser work for insulin. Eventually body's cells are forced to make use of the energy stored and the stored body fats will dissipate slowly. In due course all the cells will be hungry again and now insulin will be able to actually work by providing energy to the cells. Before the discovery of insulin in 1921, starvation was used by doctors as the treatment for diabetes.

ALZHEIMER'S AND DEMENTIA

Alzheimer's and dementia are very common diseases of the present times which are often misconsidered the same. Although both are brain related disease, they are actually quite different.

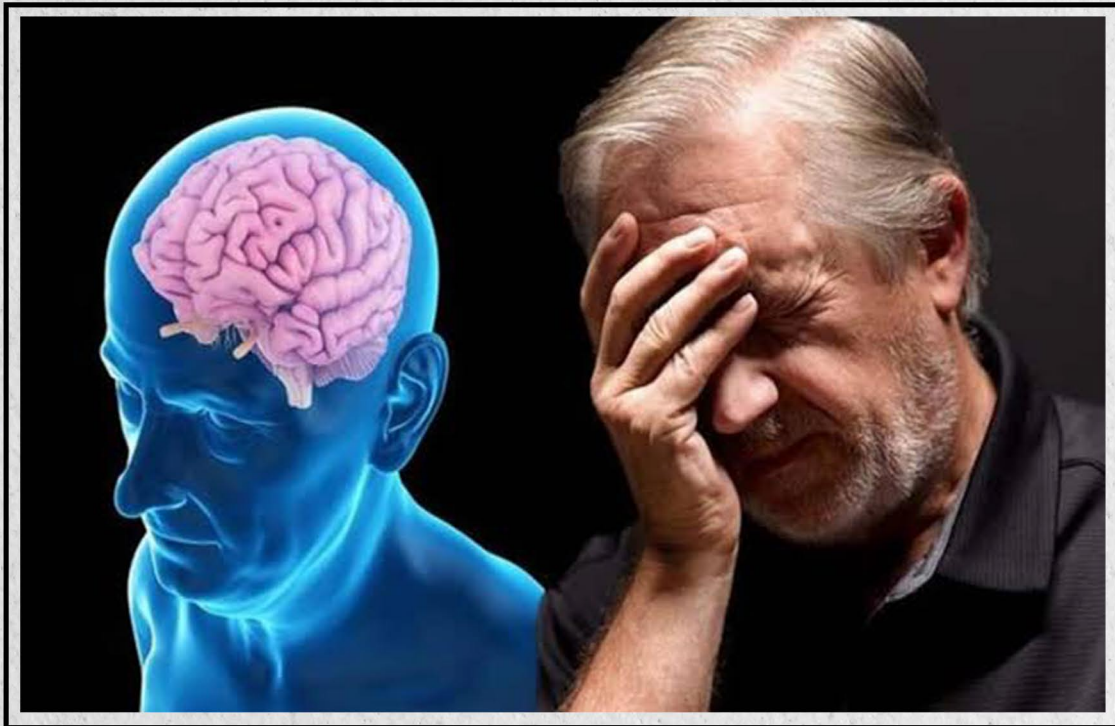
Alzheimer's disease is a brain condition that causes a progressive decline in memory, thinking, learning and organizing skills. It eventually affects a person's ability to carry out basic daily activities. Dementia is a description of the state of a person's mental function and not a specific disease.



Alzheimer's disease (AD) is the most common cause of dementia. The symptoms of Alzheimer's worsen over time. Researchers believe the disease process may start 10 years or more before the first symptoms appear. It most commonly affects people over the age of 65. It affects approximately 24 million people across the world. One in 10 people older than 65 and nearly a third of people older than 85 have the condition. Dementia affects millions of people and is more common as people grow older (about one-third of all people age 85 or older may have some form of dementia) but it is not a normal part of aging. Many people live into their 90s and beyond without any signs of dementia.

Researchers don't know why some people get Alzheimer's disease and others don't. But they've identified several factors that increase your risk for Alzheimer's, including genetic (hereditary) factors. Having a form of the apolipoprotein E (APOE) gene increases your risk. This gene has several forms, and one of those, APOE $\epsilon 4$, increases your risk of developing Alzheimer's and is also associated with an earlier age of disease onset. However, having the APOE $\epsilon 4$ form of the gene doesn't guarantee that you'll develop the condition. Some people with no APOE $\epsilon 4$ may also develop Alzheimer's. If you have a first-degree relative (biological parent or sibling) with

Alzheimer's disease, your risk of developing the condition increases by 10% to 30%. People with two or more siblings with late-onset Alzheimer's disease are three times more likely to develop the condition than the general population. Having trisomy 21 (Down syndrome) also increases your risk for early-onset Alzheimer's. Dementia is the result of changes in certain brain regions that cause nerve cells and their connections to stop working properly. Researchers have connected changes in the brain to certain forms of dementia and are investigating why these changes happen in some people but not others. For a small number of people, rare genetic variants that cause dementia have been identified.



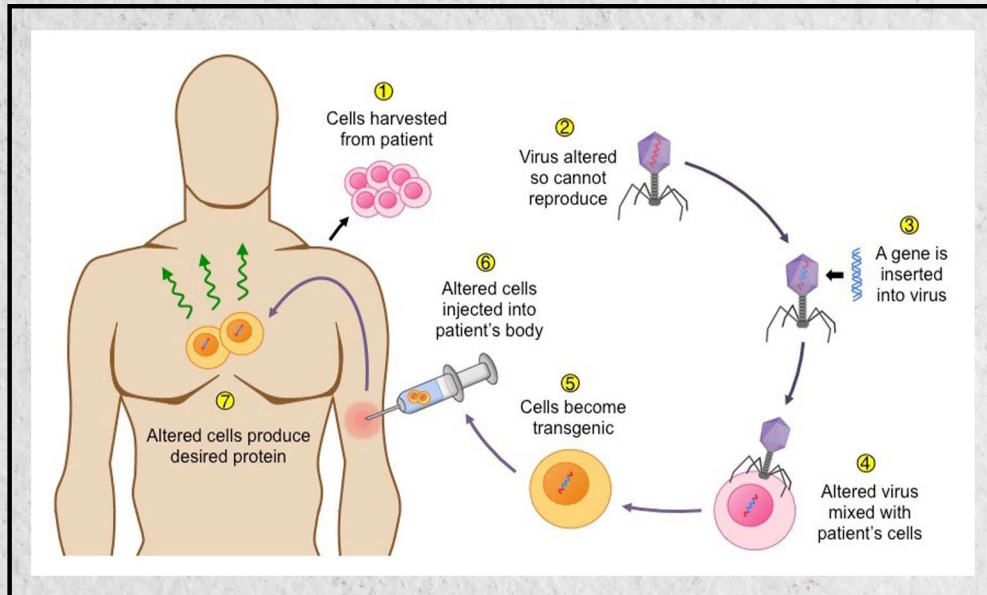
In Alzheimer's disease, speech and action become unrelated due to forgetfulness. However, people with dementia sometimes behave like very healthy people. Disconnection of thought leads to unnecessary fear and depression. Symptoms of schizophrenia also occur. Inability to think in a disciplined manner, saying something else when you want to say something, starting to talk about yourself when you see people, losing interest in learning or doing new things are actually symptoms of mental illness like Alzheimer's and dementia. In our society, patients with such symptoms are living an easy life. Such symptoms are seen among many teachers, intellectuals, doctors and prominent people in society.

These diseases can be prevented by taking good care of our physical as well as mental health. People with these diseases, their careers and families worldwide continue to experience stigma, discrimination and human rights violations.

GENE THERAPY

Gene therapy is a technique which involves the replacement of defective genes with healthy ones in order to treat genetic disorders. It is a medical approach that uses genetic material to prevent and treat disease. It is a totally artificial method that introduces DNA into the cells of the human body. The first gene therapy was successfully accomplished in the year 1989.

The simple process of gene therapy is shown in the figure below:



In the figure, the cell with defective gene is injected with a normal gene by using viruses which help in the normal functioning of the cell. This technique is employed mainly to fight against the diseases in the human body and also to treat genetic disorders. The damaged proteins are replaced in the cell by the insertion of DNA into that cell. Generally, improper protein production in the cell leads to diseases. These diseases are treated using a gene therapy technique. For example, cancer cells contain faulty cells which are different from the normal cells and have defective proteins. Hence, if these proteins are not replaced, this disease would prove to be fatal.

Types of gene therapy

Basically, there are two types of gene therapy :

◇ Somatic gene therapy

The human body mainly consists of somatic or stem cells. This process uses healthy genes to replace damaged ones. The therapy targets the defective cells of an individual who is suffering from a disease. Somatic cells are mainly non-reproductive. That means the effects of this therapy will not transfer to the future generation. Hence, it is considered to be one of the safest applications of gene therapy.

◇ Germline gene therapy

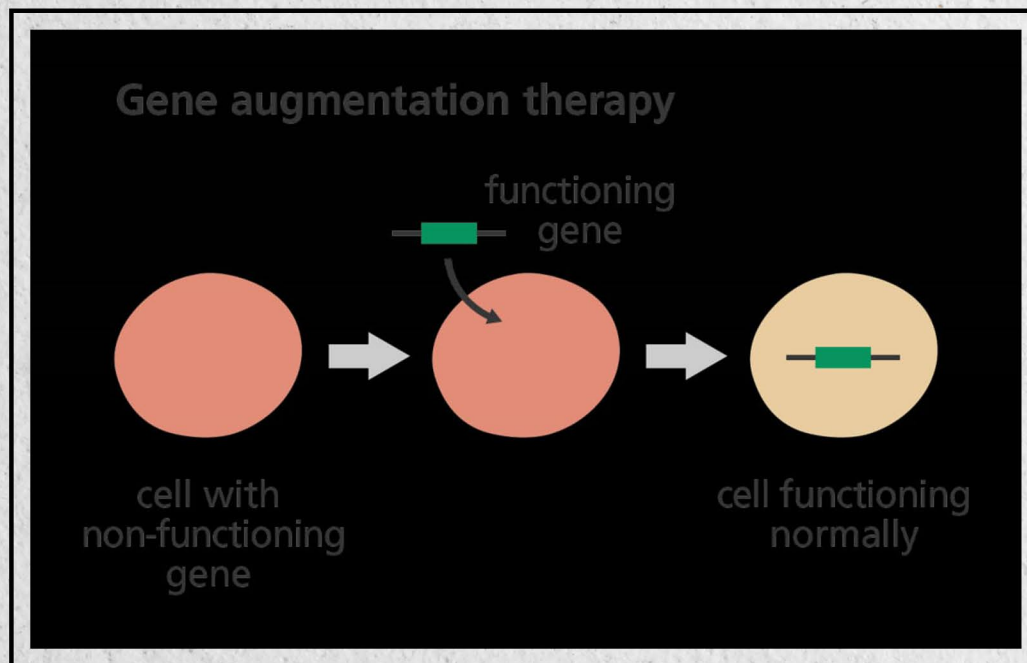
This therapy targets the germ cells of the body that produce eggs and sperms. Germline gene therapy process includes the infusion of functional DNA into cells. However, the effect of this therapy can affect future generations. Therefore, the usage of this therapy is restricted in many places. For example, the European Union does not allow this process.

Gene therapy application

With time, the popularity of this therapy is increasing. The application of gene therapy includes the following:

- Effective cures several genetic disorders.
- Treats diseases like brain tumours, Alzheimer's, Parkinson's, Haemophilia and several others.
- Useful for the diseases that traditional medicine cannot cure.
- Solely destroys disease-causing cells without affecting other cells.
- Can be used on individuals, as well as embryos.

However, this treatment has some temporal or permanent side effects too.



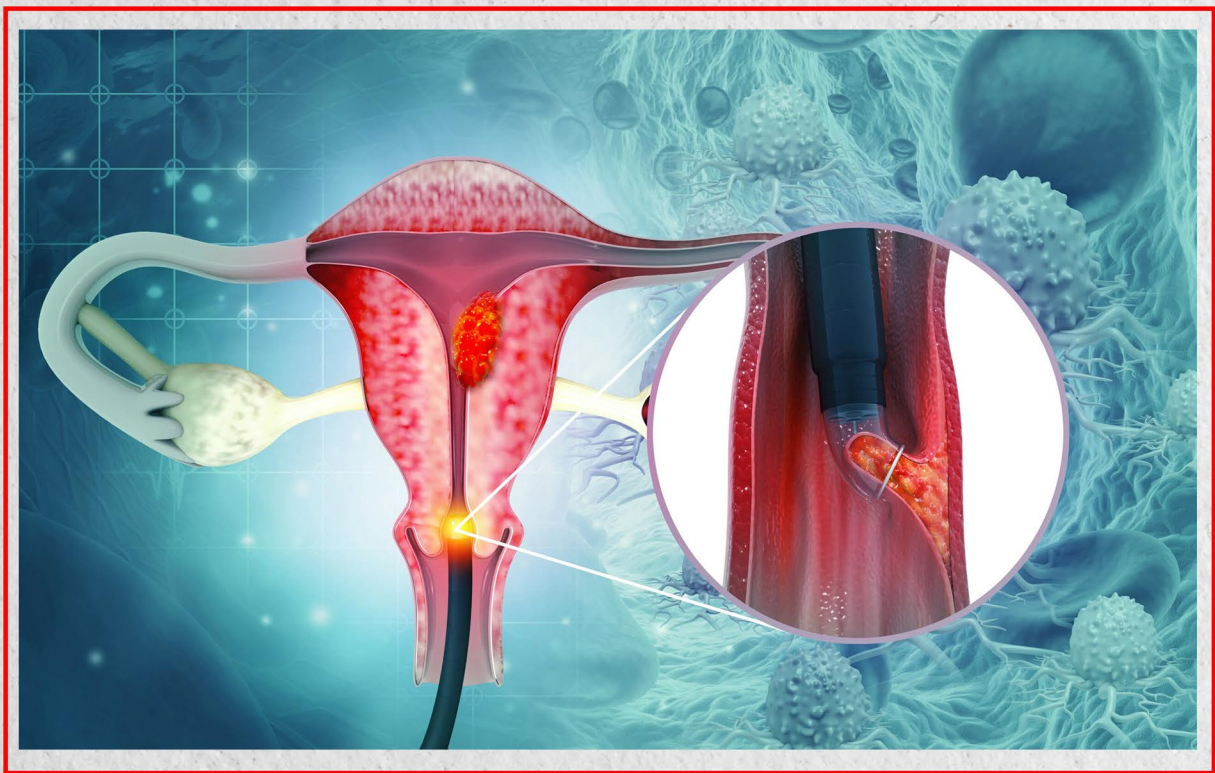
CERVICAL CANCER AND BREAST CANCER

(Calling out people against the two most widespread cancer in today's world.)

Cervical Cancer:

Cervical cancer is a significant health concern globally, affecting millions of women each year. It is the fourth most common female cancer worldwide and results in over 300,000 deaths globally.

Cervical cancer is mainly caused by HPV, particularly high-risk strains like HPV 16 and 18. Other factors include smoking, weakened immune system, early sexual activity; and multiple sexual partners and family history. Early stages may not show any symptoms but the possible symptoms may include abnormal vaginal bleeding, pelvic pain and unusual vaginal discharge.

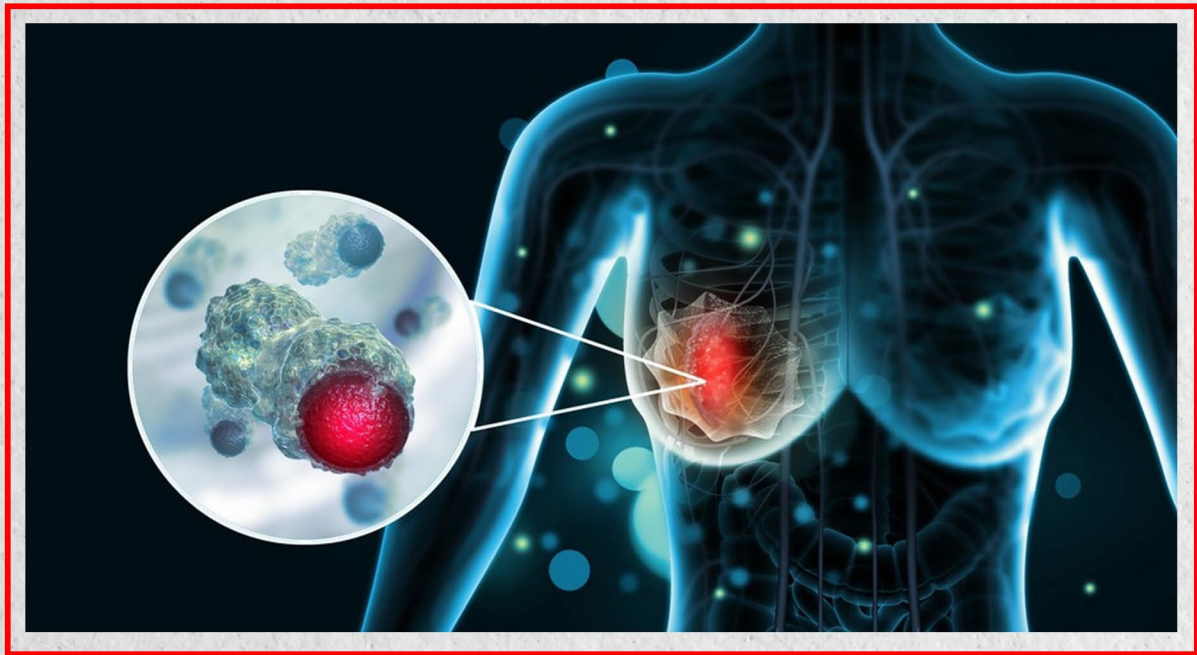


The preventive and diagnostic measures includes the following :

- (i) Vaccination against HPV significantly reduces the risk.
- (ii) Safe sex practice, limiting sexual partners and avoiding smoking can further decrease risk.
- (iii) Pap tests are commonly used for detecting abnormal cervical cells.
- (iv) Tests like colposcopy, biopsy may be conducted for confirmation.

Breast Cancer:

Breast cancer is the 2nd most common cancer in women after skin cancer. It is generally of 4 types: Ductal carcinoma, Lobular carcinoma, Inflammatory breast cancer and Paget's disease of the breast. The possible signs may include new lump or thickening in or near the breast or in the armpit, a change in the size or shape of the breast, a dimple or puckering in the skin of the breast, a nipple turned inward into the breast, etc. Mammograms can detect breast cancer early, possibly before it has spread. There are a widespread myths about breast cancer which needs to be looked upon so as to prevent any mishaps.



Some of the common Myths and Facts about Breast Cancer are:

Myths:

1. Only women get Breast cancer.
2. Only older women are at risk.
3. Having a family history guarantees Breast Cancer.
4. Antiperspirants and underwire Bras cause Breast cancer.
5. Breast implants can cause Breast cancer.

Facts:

1. Men can also develop Breast Cancer, although it's less common.
2. Younger women can also develop Breast cancer.
3. Having a family history increase the risk but many has been diagnosed with Breast Cancer with no such family history.
4. There is no such scientific evidence supporting that antiperspirants and underwire Bras causes Breast cancer.
5. Breast implants donot increase the risk of developing Breast cancer.

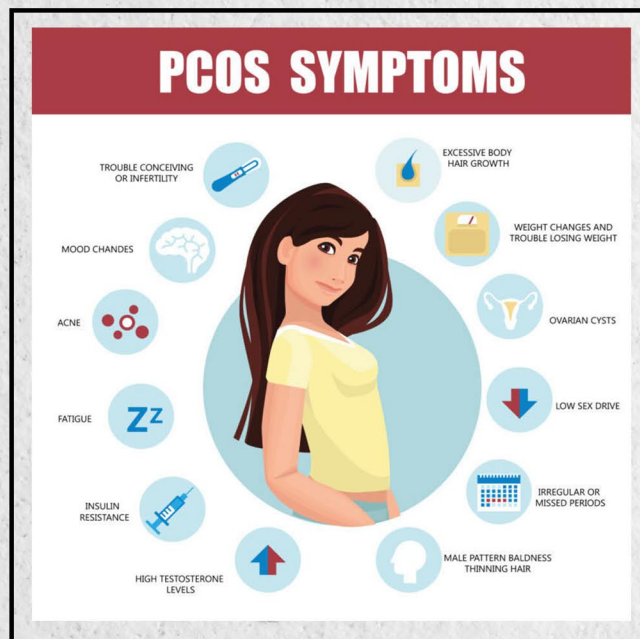
KEEPING FIT FOR A BETTER TOMORROW

(Life Style Disease)

Lifestyle diseases share risk factors similar to prolonged exposure to three modifiable lifestyle behaviours-smoking, Unhealthy diet and physical inactivity and result in the development of chronic diseases, specially heart disease, stroke, PCOS, obesity, metabolic syndrome, chronic obstructive pulmonary disease and some type of cancer.

PCOS

PCOS (Polycystic Ovary Syndrome) is a hormonal disorder which is common among women of reproductive age. It is characterized by enlarged ovaries with small cysts on the outer edges, irregular periods, excess androgen levels etc. Symptoms vary and can include acne, weight gain, and infertility. The exact cause of PCOS is not fully understood, but several factors such as insulin resistance, hormonal imbalance, genetics, inflammation etc may contribute. Prevention and management strategies should be maintained so as to prevent PCOS.



Some of the prevention and management strategies for PCOS include:

- 1. Healthy Diet:** Eating a balanced diet low in processed foods and high in fruits, vegetables, whole grains, and lean proteins can help manage insulin levels and reduce symptoms.
- 2. Regular Exercise and weight management :** Regular physical activity can improve insulin sensitivity and help with weight management as maintaining a healthy weight or losing weight if overweight can help improve symptoms of PCOS, particularly insulin resistance.
- 3. Medication:** Birth control pills or other hormonal contraceptives may be prescribed to regulate menstrual cycles and reduce androgen levels. Other medications, such as metformin, may be used to improve insulin sensitivity.
- 4. Lifestyle Changes:** Stress management techniques such as yoga, meditation, or Counselling can be helpful, as stress can exacerbate symptoms of PCOS.
- 5. Regular Monitoring:** Regular check-ups with healthcare providers are important for monitoring symptoms and managing any potential complications, such as infertility or diabetes.

Overall, a combination of lifestyle changes, medication, and regular medical care can help manage PCOS and reduce the risk of complications

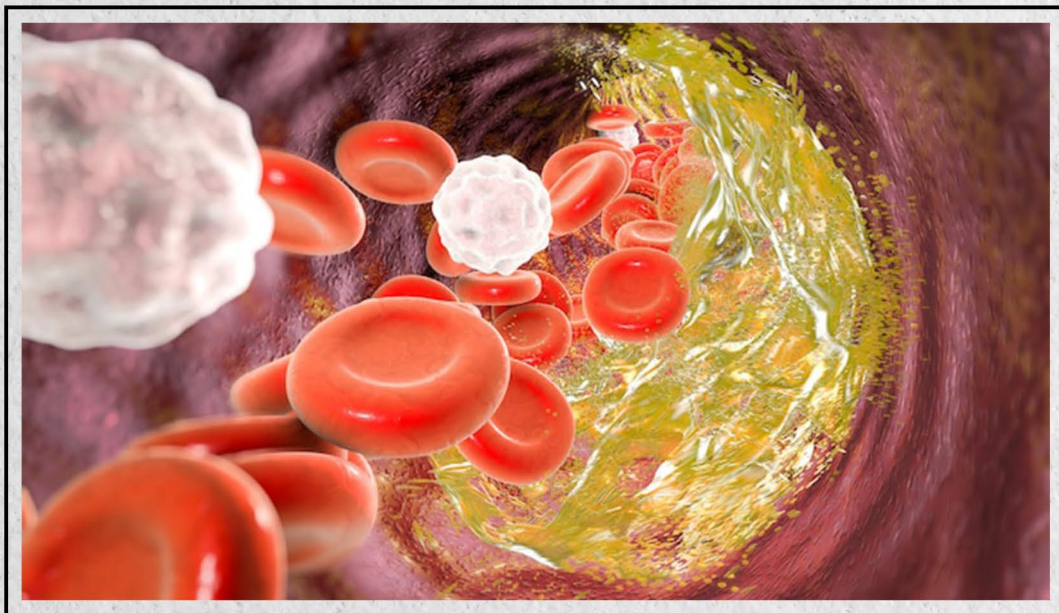
OBESEITY

One in eight people are now living with obesity. Overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health.

Obesity is primarily caused by a combination of excessive calorie intake, lack of physical activity and genetic factors. Sedentary lifestyles, poor dietary habits and environment may also contribute.

PREVENTION

Prevention involves adopting a balanced diet, regular exercise, reducing sedentary behaviour and addressing underlying emotional or psychological issues related to eating.



HIGH CHOLESTEROL

High cholesterol is often caused by a combination of genetic predisposition, poor dietary choices high in saturated and trans fats.

Cholesterol can build up in the walls of blood vessels over time, forming plaque. This plaque accumulates, it narrows the arteries, restricting blood flow to vital organs and tissue.

PREVENTION:

Prevention involves maintaining a healthy diet low in saturated and trans fats, regular exercise and managing underlying health conditions.

MALE PREGNANCY IN LIVING WORLD



In the living world, male pregnancy is extremely rare and occurs in a few species where male have evolved the ability to carry and give birth to off spring. These unique reproductive strategies have evolved in response to specific ecological or evolutionary pressure in these species.

One notable example is The male Sea Horse and some Pipefish species they are unique in the animal kingdom because they undergo pregnancy and give birth to their offspring.

- **Courtship and Mating** : Sea horses engage in an elaborate courtship dance where they may change colours, swim together and interwine their tails . During mating the female transfers her egg to the male's specialized brood pouch.

- **Pregnancy** : The male Sea horse fertilizes the eggs inside his pouch where they develop over a period of several weeks . The pouch provides a protected environment for the embryos to grow.

- **Gestation** : During Gestation male Sea horses provides oxygen and nutrients to the developing embryos and regulates proper osmoregulation.

- **Birth** : When the sea horse fry are fully developed, the male undergoes muscular contraction to expel them from his pouch . Depending on the species hundreds to thousands of tiny sea horse are born each fully forming an independent.

Male Sea Horses invest a significant amount of energy in pregnancy and offspring care, making them a fascinating example of unique reproductive strategies in the animal kingdom.

DNA FINGERPRINTING

DNA fingerprinting was discovered by British geneticist Alec Jeffreys in the year 1984. It is a technique used in biotechnology laboratories to identify an individual from a sample of DNA by looking at unique pattern in their DNA. Lalji Singh, former director of Hyderabad based centre for cellular and molecular biology, widely regarded as father of DNA fingerprinting in India.



It is a technique that involves isolating and extracting DNA from cells, amplifying it through PCR, running it through gel electrophoresis. The procedure for creating a DNA fragment consists of first obtaining a sample of cell such as skin, hair, or blood cells which contain DNA.

The DNA is extracted from the cells and purified. The DNA molecules are then cut at specific points along the strand with proteins known as restriction enzymes. The enzymes produce fragments of varying length that are sorted by placing them on gel electrophoresis. Southern Blotting technique i.e. a nitrocellulose paper is used so that the nucleotide based DNA gets pasted with another given nucleotide. Then autoradiography is done and further proceeded for X-ray.

Significance of DNA fingerprinting :

- 1) DNA fingerprinting is used for a wide variety of cases ranging from crime investigation to evolutionary studies.
- 2) DNA fingerprinting has been used to reunite families separated by conflicts or disasters.
- 3) It can establish paternity with a high degree of accuracy by comparing the DNA profiles of the alleged father, child and mother.
- 4) DNA fingerprinting can aid in identifying genetic disorders by analysing specific genetic markers associated with certain conditions.

DNA fingerprinting is highly accurate and has an incredibly low error rate. It is quick and reliable and makes it particularly useful as a preliminary test.

There are two types of DNA fingerprinting -

- (i) PCR of DNA containing VNTRs.
- (ii) Southern Blotting (using RFLPs).

Accepting all the uses of DNA fingerprinting there are some limitations of DNA fingerprinting. They can be environmental factors such as heat, sunlight, bacteria and

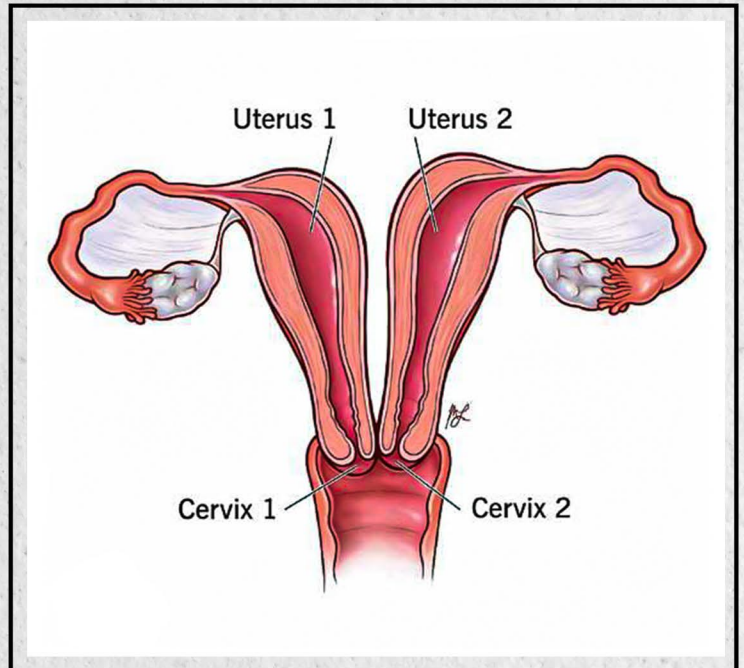
mold can destroy DNA evidence. Secondly, Identical twins share identical DNA . Moreover, DNA from close relatives is more similar than DNA from other person.

Conclusion: In conclusion DNA fingerprinting is a very fascinating field of study that has revolutionized the way we identify individuals and understand genetic relationships . Science is the service of humanity in various ways . We should always make the proper use of science for human welfare.

UTERUS DIDELPHYS

(UNDERSTANDING A RARE ANOMALY)

Uterus didelphys, also known as a double uterus, is a rare congenital anomaly affecting the female reproductive system. In this condition, a woman is born with two separate uteri, each with its own cervix, and sometimes accompanied by two vaginas as well. While not common, it's important to understand the implications and potential complications associated with this condition.



Uterus didelphys occurs during embryonic development when the Mullerian ducts, which eventually form the female reproductive tract, fail to fuse properly. Instead of forming a single uterus, the ducts develop into two separate structures, resulting in the presence of two uteri. This condition is typically diagnosed during adolescence or early adulthood, often when a woman experiences symptoms such as abnormal menstrual bleeding or infertility.

Symptoms and Complication

Recurrent miscarriages: The condition can increase the risk of miscarriages, especially if one uterus is smaller or less developed than the other.

Infertility: While some women with uterus didelphys can conceive naturally, others may struggle with infertility due to abnormalities in the reproductive organs.

Increased risk of preterm labor: Pregnancies in women with uterus didelphys are often considered high-risk, with a higher likelihood of preterm labor and delivery.

Obstructed labor: In some cases, the presence of two uteri can lead to complications during labor, such as obstructed labor or breech presentation of the fetus.

Urinary tract abnormalities: Uterus didelphys may be associated with abnormalities in the urinary tract, such as a duplicated kidney or ureter.

Diagnosis and Treatment:

Diagnosing uterus didelphys typically involves a combination of medical history, physical examination, and imaging studies such as ultrasound, MRI, or hysterosalpingography. Treatment options vary depending on the individual's symptoms and reproductive goals:

Symptomatic management: Treatment may focus on managing symptoms such as abnormal bleeding or pelvic pain with medications, hormonal therapy, or minimally invasive procedures.

Fertility treatments: Women who wish to conceive may benefit from assisted reproductive technologies such as invitro fertilization (IVF) to overcome fertility challenges associated with uterus didelphys.

Surgical intervention: In some cases, surgical correction of uterine abnormalities may be considered, especially if there are structural issues affecting reproductive function or causing significant symptoms.

Pregnancy management: Pregnancies in women with uterus didelphys require close monitoring by obstetricians and may necessitate specialized care to minimize the risk of complications such as preterm labor or fetal malpresentation.

Living with Uterus Didelphys:

Living with uterus didelphys requires ongoing management and support from healthcare providers. Women with this condition should have regular gynecological examinations and discussions with their healthcare team about reproductive options, pregnancy planning, and potential risks.

While uterus didelphys may present challenges, many women with this condition are able to lead healthy, fulfilling lives and achieve successful pregnancies with appropriate medical care and support.

In conclusion, uterus didelphys is a rare congenital anomaly of the female reproductive system that can impact menstrual health, fertility, and pregnancy outcomes. Understanding the symptoms, complications, and available treatment options is essential for individuals affected by this condition and their healthcare providers. With proper management and support, women with uterus didelphys can navigate their reproductive health journey and achieve their desired family planning goals.

Did You Know ?



Dogs :

Dogs have fantastic hearing ! They can detect high-pitched noises and spot sounds from much further away than humans can.

Vampire Bats :

A vampire bat's teeth are so sharp that its bite may not be felt at all. Their saliva dulls any pain, so a bat may drink its victim's blood for up to 30 minutes.



Human Placenta :

Dried human placenta can be used as medicine and is consumed in several parts of the world.



Butterflies :

Butterflies taste with their feet. They have taste receptors located on their feet. When they land on a plant, they use these receptors to determine if the plant's nectar is suitable for their consumption.

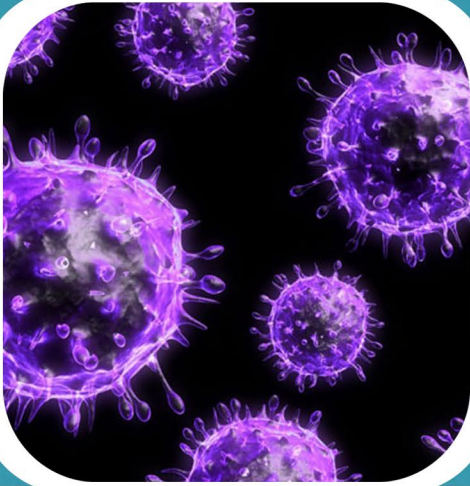


Tears :

The lacrimal punctum is a small hole in your eyelids that drains tears to your nose. It's the reason why you get a runny nose while crying.



News

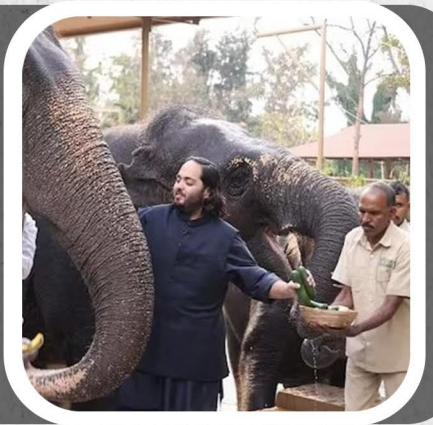


Avian influenza virus is adapting to spread to Marine mammals

The highly pathogenic avian influenza virus H5N1 has adapted to spread between birds and marine mammals, posing an immediate threat to wildlife conservation, according to study from the University of California, Davis and the National Institute of Agriculture Technology (INTA) in Argentina. While The Virus may have adapted to marine mammals, it still has the ability to infect birds, "it is a multi-species outbreak."

World's largest zoo and rehabilitation centre in the making?

On 26th Feb '24 Anant Ambani, the younger son of Mukesh Ambani, Chairman of Reliance Industries, introduced his ambitious wildlife preservation project "Vantara", which is poised to become the world's largest zoo and rehabilitation centre with the initiatives to rescue and rehabilitate animals globally. It is spread over 3000 acres and has a jungle like environment.



Lab-grown liver organoid to speed up turtle research, making useful traits easier to harness

Nicole Valenzuela with a group of researchers in Iowa State University's College of Veterinary Medicine developed protocols for growing organoids that mimic a turtle liver, the first organoids developed for a turtle and only the second for any reptile. The discovery will aid deeper study of turtle genetics, including the cause of traits with potential medical applications for humans such as the ability to survive weeks without oxygen.

The painter who underwent a bilateral hand transplant at Ganga Ram Hospital in Delhi

In a first in Delhi, a team of doctors at Ganga Ram Hospital successfully performed a bilateral hand transplant on a painter who lost both hands in a train accident in 2020. The highly complex surgery lasted for 12 hours.



ACHIEVEMENTS

Departmental Achievement

Students Achievements in the College Week 2023-24



Jayashree Saha, student of 4th Semester secured 3rd position in Musical Chair held during the Annual College Week 2023-24.



Umesh Boro, student of 4th Semester secured the 1st position in marathon race and 2nd position in 400 metre race during the Annual College Week 2023-24.



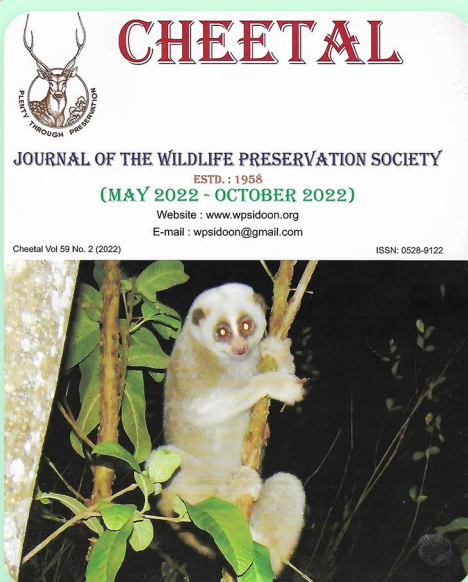
Pawan Kumar Mahato student of 6th Semester has been awarded as the best bowler during Cricket Competition in the Annual College Week 2023-24.



Jesmina Yesmin a student of 6th Semester has been presented with the best athlete award (Girl's category) during the Annual College Week for 3 consecutive years i.e. 2022-24.

Faculty Achievements...

Dr. Nabajit Das , a faculty member of our department was invited in the joint meeting of the 29th International Primatological Society (IPS) and Malaysian Primatological Society (MPS) at Kuching, Malaysia held from 19th - 25th August, 2023. Dr. Das presented his research paper on illegal trade and medicinal uses of Bengal Slow Loris (*Nycticebus bengalensis*) in NE India and he has been participating in International Conferences and Workshops since 2009 as invited speaker by different international conservation organizations.



Dr. Das has unlocked yet another achievement after his research paper on Bengal slow loris (*Nycticebus bengalensis*) was published as a key article in the journal "CHEETAL" (Vol 59: NO: 2, 2022), which is a journal of the wildlife preservation society, Dehradun, India and one of the oldest journal in India published from 1958 till date.

Along with Dr. Das's article, a photograph of Bengal slow loris which was captured by him was published in the cover page of the journal.

Dr. Suruchi Singh , a faculty member of our department has been selected as Mentor for the 'AROHAN' programme, a state level Mentor mentee Programme for the meritorious student of Secondary classes of Govt schools envisioned by the Hon'ble Chief Minister of Assam.

A district level training programme was organized by Barpeta district administration in association with 'Samagra Siksha Abhijan' on 28/04/2023 in Barpeta where Dr. Singh participated by selection in that event.



OUR TOP ACHIEVERS

Passing Year : 2023



Name :- JIMAN PARASAR
CGPA :- 9.12



Name :- MRITYUNJOY DAS
CGPA :- 8.96



Name :- HIMAKSHI SAUD
CGPA :- 8.95

Passing Year : 2024



Name :- ANKITA DAS
CGPA :- 9.22
(Best Graduate)



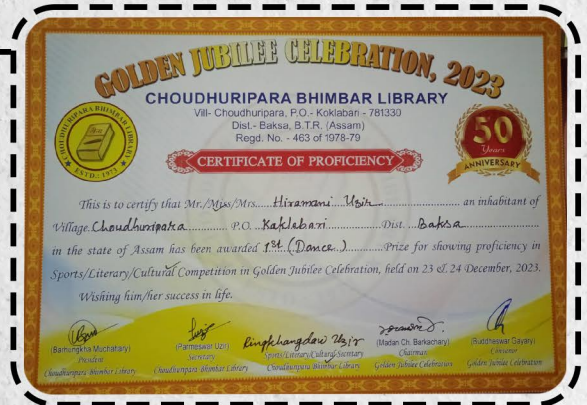
Name :- DEBASISH BAYAN
CGPA :- 9.07



Name :- BIPANCHI DAS
CGPA :- 8.50

Pin Point

Hiramani Uzir, student of 2nd Sem secured 1st position in dance competition on the occasion of Golden Jubilee Celebration of CHOUDHURIPARA BHIMBAR LIBRARY, Baksa held on 23rd and 24th December, 2023.



Smita Das, student of 4th Sem secured 1st position in the painting competition held at the 96th Howly Rash Mahotsav, 2023.

Moitreyee Madhu Talukdar, student of 4th Sem secured 1st position in the "নীলা খামৰ চিঠি" competition held during the BHCWH fresher's, 2023.



Masuma Ahmed, student of 4th Sem have been elected as the Secretary of Major Games in the B.H College Students Union Election for the session of 2023-24.

Ankita Das, student of 6th sem took part in an online interaction and orientation session held by the Chairman of UGC as a NEP SAARTHI representing our college on 6th October, 2023.



Jesmina Yesmin, student of 6th Sem was awarded with a bronze medal in the 2nd GURGAON OPEN NATIONAL TAEKWONDO CHAMPIONSHIP, 2024.

Faiznur Choudhury, student of 6th Sem was qualified for the 1st runner's up prize in the event of poster making organized by Red Ribbon Club and NSS on 20th March, 2023.



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