

ASPIRE 2024

Happy
New Year



AHALIA



SCHOOL OF PARAMEDICAL SCIENCES

A Unit of Ahalia International Foundation

Ahalia Campus, Palakkad - 678 557 Ph: 04923 226061, 9496006862

E-mail: principal.asps@ahalia.ac.in, admin.asps@ahalia.edu.in



Vision

To be a center of excellence to sprout great researchers, technologists and managers in laboratory medicine and health care system.

Mission

To mould qualified and technically competent professionals in medical laboratory technology.

To inculcate social commitment and medical ethics.

To be committed to the delivery of education of the highest quality with emphasis on hands on training.

To provide and enhance research and innovation opportunities at all levels.

Values

To produce laboratory oriented, technically competent graduates with an in-depth knowledge in the major disciplines in laboratory medicine in order to fill the niches in medical support services, in ground-breaking frontier medical research, and in progressive scientific education.

PRINCIPAL DESK



Sreejith M Nair
Principal

Rising of another New Year, with new hopes, plans and determinations. Every new Year is special like a new book or gift. We are anxious to see how the Year be to us. Even our life itself is proceeded with these kind of desires and plans, without which there may not be a direction to progress, which is actually denoted as the positive attitude. Wishing all the readers a very happy and Prosperous New Year. May You all achieve your aspirations.

EDITORIAL BOARD MESSAGE

I As we say goodbye to the past and welcome the promising dawn of a new year, I am grateful for the incredible journey we have shared together. Every article, every piece of advice and every inspiring story we've covered has helped make our newsletter a beacon of knowledge and positivity.

As we step onto the canvas of 2024, let us paint it with fresh ideas, insightful perspectives, and unwavering enthusiasm. Here's to embracing the blank pages of the new year with purpose, creativity and commitment to deliver content that resonates with our readers.

As a team, we've demonstrated resilience, creativity, and a shared passion for delivering quality content.



Rajesh VK
Associate Professor

Let's carry this spirit into the New Year, supporting each other, celebrating our victories, and learning from our experiences.

Wishing you all a New Year filled with joy, success, and an abundance of creativity. May our collective efforts continue to inspire, educate, and bring a positive change to the lives of our readers.

Cheers to a fantastic year ahead!

EDITORIAL BOARD

CHIEF EDITOR

Sreejith M Nair
Professor, Microbiology Dept.

EDITORS

Dhanesh T, Librarian

Rajesh VK, Associate Professor
Dept. of Basic Sciences

Athira P , Assistant Professor
Dept. of Microbiology

Nimisha Sadanandan ,Assistant Professor
Dept. of Pathology

Nila Suresh ,Assistant Professor
Dept. of Biochemistry

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Anand Mohan, 4th Year BSc MLT

Anusha, 3rd Year BSc MLT

Abhijith S Pillai, 3rd Year BSc MLT

Anakha R, 2nd Year BSc MLT

Aaajnja Suresh, 2nd Year BSc MLT

Aswajith, 1st Year BSc MLT

Nadira, 1st Year BSc MLT

MENTORS DESK

As we begin the journey of a new year, it gives me great pleasure to release the fourth volume of our newsletter. This milestone would not have been possible without your invaluable guidance, support and unwavering faith in our team's abilities.

Here we celebrate not only the release of Volume 4, but the growth, friendship and resilience that define our journey. Thank you for being the guide that lights our path to success.

Wishing you and your loved ones a Happy New Year filled with abundance, good health, and the fulfillment of your deepest aspirations.



Nimisha Sadanandan
Assistant Professor



Sruthi K
Assistant Professor

As we stand on the threshold of a brand new year, I extend my heartfelt wishes to each one of you. The journey of the past year has been filled with both challenges and triumphs, and as we embrace 2024, let's look forward to a canvas blanketed with opportunities and new adventures.

Let's make 2024 a year of growth, connection and shared gains. May it be a year in which your wishes soar and your dreams become a vibrant reality.

Happy New Year filled with love, laughter and the promise of a brighter tomorrow!

The Mental Health Benefits of Art

Art can greatly benefit your health and contribute to overall happiness and mental well-being. Visiting one of our local art museums, or taking a painting or ceramics class is the perfect excuse for San Diegans to do something fun while improving the health and quality of life for you and your loved ones.

“Art washes from the soul the dust of everyday life.” — Pablo Picasso

Don't Stress, Paint!

Art therapy can relieve stress for adults and children alike. There is a positive connection between art and mental health – artistic activities such as sculpting, painting or drawing are known to reduce stress and promote mental calm. Creating art takes your mind off your daily life and provides a relaxing distraction.



Worries are set aside as you focus on the details of the art you create. These psychological relief benefits are one reason why art therapy is used to treat



R Charutha Raj
Admin Executive

LPTSD. Coloring books for adults are a popular escape for people of all ages!

“In art, the hand can never execute anything higher than the heart can imagine.” — Ralph Waldo Emerson

Creative Thinking is Healthy

Another benefit of art is that it encourages creative thinking and imagination in both children and adults. It also enhances problem solving skills. Since there is no wrong answer in art, people are encouraged to imagine their own solution. This kind of flexible thinking stimulates your brain and prepares it for complex tasks, like learning a new language.

Feel Better about Yourself

Creating art builds self-esteem and provides a sense of accomplishment in both adults and children. When you complete a creative project, you may experience a surge of dopamine that can increase drive, improve concentration, and make you feel good!

This is true for any type of craft or hobby –you don't have to create a masterpiece to reap the benefits. Use your hands, create something, and enjoy doing it—this is all it takes to experience the mental health benefits of art. The process

stimulates the creation of new neural pathways in your brain that improves your overall sense of well-being, prevents depression, and even slows down aging.

I found I could say things with color and shapes that I couldn't say any other way—things I had no words for.” —

Georgia O'Keeffe

Make Memories with Art

This might be the most compelling reason to take your seniors to an art class or museum. Art can enhance cognitive abilities and memory for people with serious brain disorders, such as dementia and Alzheimer's disease. Creating visual art helps improve the quality of life for patients with these conditions by giving them a source of pleasure, increasing connectivity, and promoting cell growth in the brain.

“The only time I feel alive is when I'm painting.” — Vincent Van Gogh

Forget Pain through Art

Chronic health conditions are often accompanied by depression, pain, anxiety, and stress. Take your loved ones who suffer from chronic health issues to see beautiful art and help ease their worries for a while.



Going to museums and art walks provide a fun, imaginative, positive experience for adults, kids, and seniors. Whether you learn something new, re-discover your passion, or have a pleasant escape, the health benefits to immersing you and your loved ones in art are widespread. Take a day, connect with your imagination, and improve your health!



ORIENTATION PROGRAMME BATCH 2023-24

Orientation program for the first year B.Sc. MLT batch 2023-24 was conducted on 20th November 2023 at Ahalia Diabetes Hospital auditorium. The program started by 10:00 am with prayer followed by various sessions related to the programme including Campus, programme structure, rules and regulations, mentor-mentee, anti-ragging etc. by ASPS Staffs. Principal, Mr. Sreejith M Nair inaugurated the programme and delivered Presidential Address. Ms. Athira. C expressed Vote of Thanks.



AHALIA SCHOOL OF PARAMEDICAL SCIENCES
INVITES YOU


**B.Sc.MLT
2023-24 BATCH
ORIENTATION PROGRAMME**

📅 20 NOVEMBER 2023 📍 ADH AUDITORIUM, AHALIA CAMPUS 🕒 9:00 AM

JOIN US!




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Campus Visit

A campus visit was conducted on 22.11.23 for the First Year B.Sc. MLT 2023-24 Batch students to familiarize themselves with the Ahalia campus. It was a great opportunity for the new comers to explore and experience the biggest eco-friendly campus in Kerala. Apart from Ahalia rock garden, Ahalia museum, Ahalia heritage village and Ahalia water lakes students also visited Ahalia Hospitals as well as other educational institutions in the Ahalia campus. Miss. Athira P, Assistant Professor guided and explained to students about the campus.



Library Orientation



Ahalia School of Paramedical Sciences Library organized library orientation session for B.Sc. MLT 2023-24 batch on 22/11/2023. Librarian, Dhanesh Thottathil explained the functions and services of the library.



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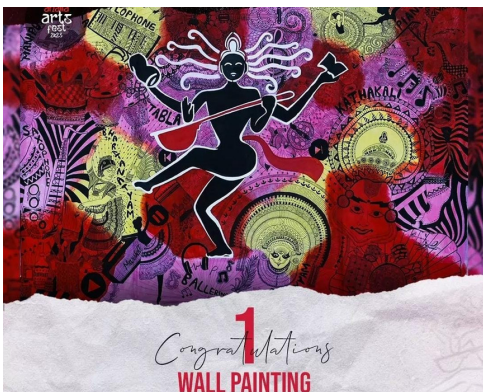




Shining Stars of ASPS who won 1st and 2nd prizes in various programs of Ahalia Arts Fest 2023....Congratulation Winners...🏆🥉



Ahalia Arts Fest 2K23





Galaxy S21 FE 5G

SILEX 2K23

The 22nd South Indian Annual Conference/9th Annual Conference SILEX 2023 of SAMT (Students Association of Medical Laboratory Technologists) was held on 22 November 2023 at St.Thomas Hospital, Chethipuzha. About 51 students and 6 staff members of Ahalia School of Paramedical Sciences participated in the event.

Warmest Welcome from St. Thomas Hospital Chethipuzha to SAMT (Students Association of Medical Laboratory Technologists)

SILEX
SPECTACULAR MOMENTS OF UNITY
22nd SOUTH INDIAN ANNUAL CONFERENCE / 9th ANNUAL CONFERENCE OF SAMT
NOVEMBER 22, 2023
@ YAWA INTERNATIONAL CONVENTION CENTRE, THIRUVALLA

OUR SPEAKERS

Dr. Biju (Biju) Thiruvikrama, M.Phil, PhD
Dr. Binnya S, M.Sc, PhD
Dr. Binisha Roy G, M.Phil, PhD

ST. THOMAS HOSPITAL CHETHIPUZHA
blessed for healing

38 വിടയാർട്ടിമെന്റുകൾ, 107 വിദഗ്ദ്ധ ഡോക്ടർമാർ | FOR APPOINTMENTS: 0481 272 2100





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IQAC MEETING

The meeting of IQAC was held under the chairmanship of IQAC Coordinator Rajesh VK on 26/10/2023 at 3:00 pm at the principal cabin.

Ms. Nila Suresh, Assistant Professor explained NAAC Criteria I and Sreejith M. Nair, Principal delivered a detailed explanation about the same. Mrs. Nimisha Sadanandan expressed vote of thanks.



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Lab Technicians Anusha and Annamma Rosmi explain the Laboratory Rules to the 2023 Batch Students.

LABORATORY ORIENTATION

Laboratory orientation session for First Year B.Sc. MLT 2023-24 batch was held on 22/11/2023 at ASPS Library Reading Room. Lab Technicians Mrs. Anusha, Ms. Annamma Rosmi explained the functions and services of the Laboratory



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World AIDS Day 2023

As part of World AIDS Day Microbiology department of Ahalia School of paramedical Sciences conducted poster competition and quiz competition on 01/12/2023. All 4 batch of students participated in the event. quiz competition was coordinated by Mis Gopika and mis Malavika and poster competition was coordinated by Ms Shruti and Mis Athira, Mis. shaniba and Mis. Nefla secured first prize in quiz competition and 2nd year students grant first prize for poster presentation.

December 1 World AIDS Day 2023

Theme: "Let communities lead"

1 DEC
2023

Poster Competition

Quiz Competition

1 DEC
2023

Ahalia School of
Paramedical Sciences

At 2.00 PM- 4.00 PM



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HOW ARE YOU?

I love to listen a lot....I don't talk much,but listen a lot.Most of them start with a "Hi",ends up opening to heartfelt.Stories goes on-Happy, Sad,Lost,Love,Lust,Romance,Friendships,Break-ups and many more....how people change from "Forever together" to "Stangers","Met with a smile" to "tears as apart".Every person has a story to tell and each story are unique on its own.By the end of the story,they move on happily...I don't know how all this "Listening" works, But people feel happy on sharing.I did found my "Glorious Purpose",and they are



Anand Mohan
Final Year BSc MLT

happy on sharing.Maybe only for few milliseconds,they would feel so...Only for the moment,they would feel as the burden dropped.Afterwards when the memories hitback ,they would definitely get back to the same old stage of thoughts....But still I did made them smile for sometimes.They had their share of happiness in their busy world and me becoming a part of it.If they ever needed a peptalk ,they could come over anytime.

But turning back, I did realised, with all those busy listening I did missed a person I should have listened to, Someone who never had the chance to express himself, Someone who needed support from me... And till day I regret not for being there for him.



I don't know how to write this.Cause its vast and not my area ofexpertise,but I have to add something.And let me be clear, all this arermy POV, If you feel otherwise, that's strictly your way of,I don't know,interpreting.And please don't be pessimistic about my writing....

Well, I love the way how human mind works, Fascinated actually..Minds work differently.Minds are so talented that they hide our real feelings and bring up another fake one... So real to watch, that we often think those people are having the best time,but really going through the hardest of all.Minds are wired to express the best,to show others we are having good moments rather than dying inside.

A friend of mine gave up his life. "Depressed" was his last words.And yes,the youth in this age is choosing the easy way. If you don't have an answer or, if everything is not

working like you thought it would or, if he/she/they don't see the way you are, if you can't live up to someone's expectation...They choose to surrender....

I would say, our society and our surrounding are a part of making up this kind of fucked-up minds. We live in a world, not living but dreading... Each day pass by hoping everything would be likewise we anticipated. And each day ends, we being more sad, weak and drained. We live in fear by thought in how others would see us. Maybe that's why most of us choose in last a way to end our sufferings.

"Expectations" and "Attachments" are some other serious topics to talk about. Everything is so connected to our life. We expect others to stay and they leave. We expect some to leave, and they stay..

Wait, whaaaaaat..? OK, that's not the way I thought of connecting it. but still it works.

More precisely, we keep expectations in everything and when it doesn't work, there goes out our confidence. Some get attached too easily and some are hard to get attached to..anyhow if that attachment leaves us, That's the end. No one, nowadays is choosing to move on. But choose to take a simple step, to give up their life...

I have been thinking of all those life we could have saved. All those suicides we could have prevented from ever happening. They gave up because they never found a reason to live. What if we could have provided those reasons, those hopes. What if we were those hopes, and we left them to suffer. What if we are the reason they gave up.... I'm not offending or pointing anyone. I'm just saying. Some are getting hurt around you and you don't see that. Some are dying in front of you

and you won't see that, Like I said, Human minds works so differently. So if you don't see all those, it's time to. You won't maybe, cause it's hard to understand how one is hurting inside.

I would suggest a checkup. Be the support to your loved one. Take some time for them in your life. A simple question, "How are you doing" could change a lot... A simple hug saying I'm here for you is all they needed at their worst time. Even our silent presence near them could make a drastic change... Please don't let them suffer alone, have the courage to speak up and have the love to share their burden. You don't need to give them advice, but your presence could give them the courage to move on.

And to those people who are hurt, I know how you feel. I can imagine the pain you are going through. Just know this, You are not alone. You do matter to us. Just have some time to think for the hope in you. We think we are alone, but there are a lot of souls loving us, wanting our presence and happiness, praying for our better days. Don't miss that in an act of haste....

P.S.: It was me, Myself, whom I missed. I should have given a chance to speak to myself. But on those busy listening days, I missed myself.

And Yes I talked on some random topics, all are connected in one way or the other. But everything is written shortened and I still left out "Ego and Possesiveness" for another day. I do wish I could have elaborated everything. So let's hope if everything works out, I would come up with some idea to express everything in me in detail.....Cheers.

A SESSION ON TEACHING-LEARNING ACTIVITY

Principal Cabin
Ahalia School of Paramedical Sciences

DISCUSSION & INSIGHT

2:30 - 4:00 PM
TUESDAY
12 DECEMBER, 2023

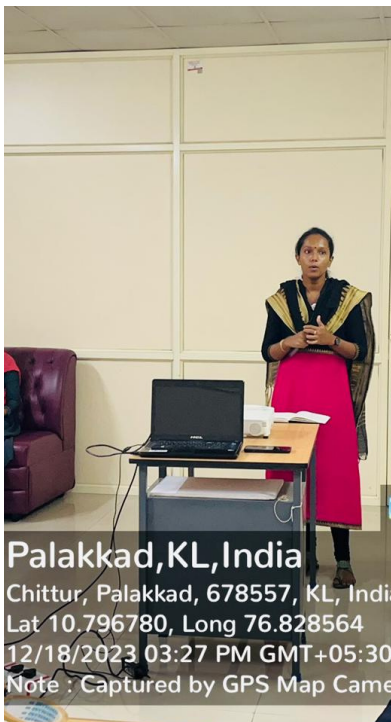
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TEACHING LEARNING SESSION

Internal Session for teaching learning activities was organised by Ahalia School of Paramedical Sciences on Dates 12/12/2023,13/12/2023,14/12/2023, 18/12/2023, 19/12/2023 from 3:15 - 4:00 PM

The session was covered the following topics Classroom management, Student Management, Evaluations, Instructional Technology- Theory (PPT format, Google Classroom, Other Resources and Does and Don'ts), Standardization of Teaching Plan, Mentor- Mentee to improve results and attitudes, Grading of students and their management (Weak Learner's) Discussion was happened on each topic which was coordinated by principal. Sop for teaching learning activities were discussed and derived during the meeting which will be implemented strictly from January 2024.



EMERGING AND RE-EMERGING VIRAL INFECTIONS IN INDIA : AN OVERVIEW

INTRODUCTION

The emergence of novel human pathogens and re-emergence of several diseases are of particular concerns in the current decade. A virus is a small microorganism that must infect other cells to replicate. When a virus enters the human body, the immune system responds by producing antibodies, neutralizing it, and preventing transmission from the infected person. However, some viruses have evolved and developed ways to evade detection by the human immune system, allowing them to spread undetected until they reach epidemic levels. Emerging infections are those that are newly discovered or recently rediscovered after being absent for a long period. Re-emerging infections are those that once were common but have become much less frequent as a result of changes in public health practices or an increase in human population density. The severe acute respiratory syndrome (SARS)-associated coronavirus (SARS-CoV-2) epidemic and the human immunodeficiency virus (HIV) pandemic are two classic examples of newly developing infectious diseases. A recurring infection is referred to as "re-emerging." Influenza and pandemics in 1918, 1957, and 1968 are illustrative cases of re-emerging diseases. Emerging and re-emerging viral infections pose a constant threat, especially in healthcare



Athira P
Assistant Professor

settings. As the use of immunosuppressive drugs increases, more patients have weakened immune systems. The result is an increase in the rate of transmission of these viruses. While there's no surefire way to prevent the spread of these viruses, there are measures that can be taken to reduce the risk.

FACTORS RESPONSIBLE FOR VIRUS EMERGENCE AND RE-EMERGENCE

The emergence and re-emergence of viral diseases are influenced by a variety of virologic and environmental factors. There is no particular, stable ecological niche that viruses occupy. Rather, viruses have the potential to parasitize different host species because of their inherent ability to genetically modify and the evolvability of fitness levels.

Human Factors: Population Growth, Urbanization, and Migration

People in developing countries are rapidly migrating from rural areas to cities in search of employment and opportunity. Population distribution is shifting worldwide due to urbanization, colonization, labor associated with agriculture, and mining. Large communicable disease outbreaks may overwhelm the primary and public health

systems as a result of the rapid migration of people into urban areas and the creation of slum areas without adequate shelter, clean water, or sanitation. Overcrowding in urban areas, especially due to poor housing conditions, facilitates the spread of tuberculosis, other respiratory infections, and vaccine-preventable diseases.

Urbanization can be a positive contributor to public health by providing access to essential health services. However, in crowded urban areas without adequate housing and sanitation, infectious diseases spread rapidly due to a lack of proper hygiene practices. In addition, the lack of safe water supplies and sewage disposal systems can result in contaminated water supplies, which are a major contributing factor to emerging and re-emerging infections. India has the largest dengue burden, with one-third of all new infections worldwide. Urbanization, globalization, and a lack of mosquito control are a few reasons that have significantly contributed to the escalation of this viral infection. Rapid population growth can overwhelm immunization efforts, reduce herd immunity, and make society more vulnerable to epidemics. Global health and the epidemiology of infectious diseases are faced with a number of issues as a result of urbanization. New megacities may serve as the breeding grounds for new epidemics, and zoonotic illnesses may spread more quickly and pose hazards on a global scale. Appropriate city planning and

surveillance can be effective instruments for enhancing overall health and reducing the burden of communicable illnesses.

Predisposing socioecological risk factors include an increase in livestock populations, intense interspecies interactions, and widespread ecological change. A classic example is buffalo pox in Western Maharashtra, a zoonotic disease that has been linked to numerous animal epidemics and human cases in India. The dynamics of the disease suggest a comparatively high level of transmissibility between animals and humans, and the drivers of rising incomes, urbanization, and globalization may help it spread further.

All new infectious diseases that have been identified since 1940, more than 60% are zoonotic in nature. Hunting for "exotic meat" and living close to domesticated animals can both increase the danger of an infectious disease spreading from the animal host to the people. Significant deforestation brings humans, bats, and even monkeys closer together, which could lead to the transmission of "new" infections like influenza, COVID-19, and MERS. To control and avoid this impending threat to world health, a better understanding of zoonotic disease surveillance, prevention, and management would be extremely valuable. Hotspots for this transmission have been identified, and they frequently correspond to regions where urbanization is clearly on the rise. Significant food-borne diseases caused

by noroviruses and the hepatitis A virus have been linked to food handler transmission and sewage-contaminated foods. A single food item may include a complex mixture of viruses and other pathogens, which could lead to genetic recombination or re assortment and further increase the diversity of these diseases.

Environmental Factors

There is a global and institutional aspect to the environmental problem and its connection to the emergence and re-emergence of diseases. The ecosystem, which is made up of biotic and abiotic components that interact in some places, is the fundamental component of the environment. Humans maintain artificially altered ecosystems to meet their own food demands or to supply food production chains. These agrosystems are fragile because they lack the species diversity required to maintain dynamic equilibrium. Animals are accused of causing environmental, infectious, and metabolic annoyances. However, in a globalized society, the health risks linked to newly emerging and re-emerging infections are substantially greater, and recent epidemics like the H5N1/H7N9 avian flu, Rift Valley fever, and Ebola virus illnesses are examples of this. The ecology of an area can also be a contributing factor. Environmental changes such as deforestation or pollution can increase viral exposure through ecological disruption. The emergence of the Ebola virus in West Africa is attributed to deforestation and

the subsequent loss of forested areas that are critical for fruit bat populations. Simultaneously, human population growth has led to increased contact between humans and fruit bats. Deforestation has also been linked to the re-emergence of the Nipah virus in Malaysia and Singapore since 1998, and increased interactions with pig farms have been linked to the re-emergence of Rift Valley fever virus in Sudan in 2007 and outbreaks in Saudi Arabia in 2000 and Kenya in 2006. Changes in ecology can also lead to increased pathogen exposure via changes in host behavior. For example, increased contact between bats and livestock due to anthropogenic encroachment on bat caves has been linked to the emergence or re-emergence of the rabies virus.

Impact of Mass Gatherings and Emerging Viral Infections

One of the largest human mass gatherings on Earth is the holy Kumbh Mela, which takes place every 12 years in Uttar Pradesh, India. Also, there are various gatherings taking place in India like the Pushkaram festival in Andhra Pradesh, Velankanni, the biggest Catholic pilgrimage, etc. During such massive gatherings, the transmission of respiratory and gastrointestinal illnesses continues to be a major issue. These mass gatherings pose a threat to emerging and re-emerging viral diseases because they may serve as a platform for the exchange of genetic material, may be responsible for the evolution of new viruses and may infect

people who are susceptible to that particular virus. Although MERS-CoV infection has not been detected in the country, yes, there is a risk of it through international travel, including the Hajj pilgrimage. Reports suggest that returning pilgrims who are infected spread influenza. The emergence, re-emergence, and transmission of viral illnesses may also be influenced by a variety of socioeconomic factors. Inadequate public health infrastructures, restricted immunization programs, and political upheaval or wars that uproot millions of people and leave overcrowded refugee populations without access to clean water or basic medical treatment are a few of these issues.

Viral Factors

Viruses are also changing. At least some emerging viruses are genetically evolving more rapidly than before due to mutations that arise more readily under conditions such as faster replication rates caused by insect borne transmission or immunosuppression from HIV infection; some viruses may even be undergoing evolutionary adaptation through natural selection. Viral evolution may also be driven by viral-host co evolutionary dynamics: as hosts develop resistance to viruses, some viruses may respond by evolving new ways to overcome host defences. Viruses may also evolve more rapidly through genetic recombination, which is a major mechanism for the evolution of influenza viruses in particular. RNA viruses

particularly have high mutation rates, which help them in rapid evolution and environmental adaptation, which in turn maintain equilibrium with their host. The genetic variation of the viral genome is primarily caused by three processes: point mutation, recombination, and re-assortment. Point mutation is a frequent adaptation method utilized in the evolution of viruses. The poor fidelity of reverse transcriptase (RT), which lacks the 3'-5' proofreading exonuclease, and RNA-dependent DNA polymerase (RDDP) is the cause of the high mutation rate of RNA viruses. Recombination is the second method used by viruses to adapt through mutation. Recombination creates a new "mixed" or "hybrid" genome molecule by allowing two copies of genetic information to interact. Coronaviruses exhibit a high rate of recombination. Gene re-assortment is the third mechanism of viral adaptability. When segmented viruses, which are viruses with numeroplance, ultimately resulting in the progeny virus having a genome set generated from the various parent viruses. Some emerging viruses have been found to be more virulent than their ancestral counterparts, such as the pathogenic H5N1 avian influenza virus, which has already caused a pandemic in poultry. It keeps infecting humans and other mammals across species boundaries, frequently with catastrophic results and fatal outcomes. Still, other emerging viruses are now being transmitted by novel means. Person-to-person transmission of the

Middle East respiratory syndrome coronavirus, for example, was previously thought to be impossible due to the virus's preference for respiratory epithelium. However, cases have recently been reported with probable transmission from human to human via large droplets from coughing or sneezing. When the newly emerging COVID-19 virus is compared with the SARS (severe acute respiratory syndrome) virus and MERS (Middle East respiratory syndrome) coronavirus, case fatality was quite lower in COVID-19 as compared to SARS and MERS.

us segmented genomes, co infect the same cell, gene re- assortment takes

Some viral pathogens that have gained particular attention in recent years are discussed below;

Arboviruses

Arboviruses (arthropod-borne viruses) are viruses that are transmitted to humans or other mammals by arthropods, invertebrate animals possessing an exoskeleton. The major arthropod vectors for the transmission of viruses are mosquitoes and ticks. In 1930, only six arboviruses had been identified, one of which yellow fever virus caused disease in humans. Currently, the CDC arbovirus catalog lists 537 known arboviruses, approximately a quarter of which cause disease in humans. Most arboviruses are maintained in a transmission cycle between an arthropod vector and vertebrate hosts, usually birds or small mammals. The virus is acquired by the vector when it

feeds upon an infected individual taking a blood meal that contains the virus. The Flaviviridae family contains several well-known viruses, including hepatitis C virus. These viruses are enveloped and possess +ssRNA genomes within an icosahedral capsid. Within Flaviviridae, the Flavivirus genus contains over 50 different species, the majority of which are transmitted by vectors. It includes several notable human pathogens, including yellow fever virus, DENV, KFDV, Japanese encephalitis virus, WNV, and St. Louis encephalitis virus. The emergence and spread of arthropod-borne zoonotic viruses are a major concern because many arboviruses cause serious disease including death in humans. Besides Flaviviridae, arboviruses are also found in the Bunyaviridae (Crimean-Congo hemorrhagic febrivirus, Rift Valley fever virus), Reoviridae (rotavirus), and Togaviridae families (Chikungunya virus).

Nipah: The recent outbreak of Nipah in Kerala India had sent panic ripples across the world. Nipah virus outbreak was 17th July 2018 in Kozhikode and Malappuram districts of Kerala state. A total of 19 cases were seen of which 17 died. Recently 15th September 2023 the ministry of health and family welfare, government of india, reported six laboratory-confirmed cases, including 2 deaths, in Kozhikode district Kerala. The causative agent is Nipah virus (family Paramyxoviridae) and host being pigs and bats. Nipah virus emerged as a new virus 21 years ago i.e. in 1998 in Malaysia

which caused morbidity and deaths and demolished the pig-farming industry in Malaysia. This virus caused outbreaks in Bangladesh and Siliguri, India in 2001 where bats of the Pteropodidae family were incriminated as potential reservoirs. Nipah virus outbreak should be suspected in relevant epidemiological settings, considering history of travel or contact with pigs or bats in patients presenting with acute encephalitis. If an outbreak is suspected, the animal premises should be quarantined instantly. Nipah is classified as category C of bioterrorism potential which includes emerging pathogens that could be engineered for mass dissemination, are easily produced and disseminated, and have capacity for high morbidity and mortality rates.

Respiratory viral infections

Acute respiratory diseases claim over four million deaths every year and cause millions of hospitalization in developing countries every year. Over 200 viral pathogens, belonging to the families Orthomyxoviridae, Paramyxoviridae, Picornaviridae, Coronaviridae, Adenoviridae and Herpesviridae, cause respiratory infections in humans. Influenza, parainfluenza, respiratory syncytial virus (RSV) and adenoviruses remain important respiratory pathogens. Human metapneumovirus has also been recognized worldwide as a pathogen of significance.

Influenza: Influenza viruses, belonging to Orthomyxoviridae family, are the frequent causes of epidemics and

pandemics affecting humans. Influenza pandemics have occurred earlier in 1918 (Swine influenza), 1957 (Asian flu), 1968 (Hong Kong flu), 1977 (Russian flu) and the recent pandemic of 2009 (pandemic influenza A H1N1). Influenza virus type A is highly variable, shows continuous antigenic variation and is a major cause of epidemics and pandemics. Avian influenza (AI): Humans are susceptible to infection with AI and swine influenza viruses, including the AI virus subtypes – A (H5N1), A (H7N9) and A (H9N2).

Coronavirus disease (COVID-19): An unprecedented outbreak of Corona virus in Wuhan City, China emerged in December 2019. The second wave has also started in India in 2021. Hospital isolation of confirmed cases, contact tracing and home quarantine of contacts was done. The next year in December of 2022, while there was no emergence of a new major variant, and the rise of sub variants such as BA.2 and BA.5, all classified within the omicron branch of the coronavirus and now a new variant JN.1, which also belongs to the omicron lineage.

CONCLUSIONS

The past events strengthen the fact that infectious diseases will continue to emerge. If not controlled effectively, they will take a devastating toll on human life. There is an urgent need for better surveillance and disease burden assessments in the country. It is also required to gain detailed insights into vector biology, environmental factors,

mapping of endemic areas, strengthen intersectoral coordination, infection control practices, and ensure use of Personal Protective Equipment's (PPE) and availability of drugs and vaccines to handle the outbreaks in a better way.

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THIRD YEAR PTA MEETING



Third Year PTA meeting was conducted on 04/12/2023. A total of 10 parents attended the meeting. Individual Session were conducted with Parents, Principal, Year Coordinator and teachers.

Agenda:

1. Attendance and internal Assessment
2. Attitude
3. Other Matters

ALUMNI MEETING

Alumni meeting was conducted on 12/12/2023 at 10:30 Am at principal cabin. Students from Batch 2015,2016,2017,2018 attend the meeting. Discussions on conducting a convocation was discussed. Principal suggested to constitute a committee to materialise the event. It will be the responsibilities of committee members to get the list of students and parents attending the convocation. The meeting finalised to meet after one week to discuss the proceedings, by the time Guest, Venue, Date and list off participants will be finalised



GRIEVANCE REDRESSAL COMMITTEE

Grievance Redressal Committee meeting was conducted on 06/12/2023 at 10:30 AM. Principal, Students, Warden, F&B manager and Staffs were presented.





Ahalia School of Paramedical Sciences celebrated Christmas on 22/12/2023 with great enthusiasm and zeal. Students, teachers and staff gathered to celebrate the festival with great enthusiasm. The college organized various events like decorating the college campus with Christmas lights and festive decorations, singing, dancing and other performances.



Christmas Celebration 2K23



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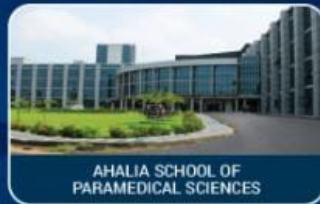
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