



DPT

DEVELOPMENTAL PEDIATRICS TODAY



July 2020

Monthly e-Newsletter of IAP Chapter of Neurodevelopmental Pediatrics

IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS

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Editorial

Dear Friends and respected Seniors,



I hope you and your family is keeping safe. July 1st being doctor's day, this month we all can feel proud of the way our fraternity has handled the current Pandemic and once again proven their grit. Despite the number of cases still high, we are better prepared to handle the situation and most of us have adapted to the new normal. Gradual unlocking means we have to be very careful in hand hygiene, social distancing and wearing mask. Child development centers are gradually reopening. People are now getting restless to shift therapies from online to child development center.

We had started quiz last month and would be continuing every month. Quiz answers were sent by only 2 doctors. The 6th question of the quiz had a mistake and we wish to apologize for the same. The 6th question is: 'The following may cause deafness in children except.

We got answers for the quiz from only two doctors and they did very well in the quiz.

Dr. Fatima Shirly Anitha, Fellow in developmental Pediatrics, at SRMC, Chennai.

Dr. Nirali Thakker Lohiya, Consultant Developmental and Behavioral Pediatrician, D.Y. Patil Medical College, Pune.

We really appreciate the efforts by both of them.

1 July being doctor's day, in this issue we have a very nicely written homage to Dr.B.C. Roy by Dr. Anjan. 22 July is International Fragile X syndrome day, so we have published a case and a writeup on the same.

We request those pediatricians who are running fellowship program to send interesting cases to us to be published in the upcoming issues.

***Dr. Lata Bhat**
Chief Editor*



Chairperson's Message

Dear colleagues and friends,

Greetings to all our readers. Well, as the wheel of time moves on, in its steady pace untouched by the events around, ironically everything around it is rushing to meet Time.

Everyday we are bombarded with new information, Webinars galore, but have we looked back to think how busy we are, encroaching into family time and the insatiable thirst for knowledge.

We are back again with the next issue of our DPT Newsletter. As we observe Fragile X Syndrome Day this month, it brings forth the importance of genetic testing in neurodevelopmental disorders. Cytogenetic research studies done way back in children in 2003, with mild to moderate GDD/ID with no identifiable cause, showed a yield of 2.93% to 11%, but those with dysmorphic features had a greater yield of 20%.

With improvement of techniques with chromosomal microarray assay (CMA), we are beginning to detect a lot of chromosomal aberrations of deletions and translocations in developmental deviations in normal looking children. As per American Academy of Paediatrics and American Academy of Neurology recommendations, cytogenetic studies like CMA is a first-tier test to study genetic imbalance.

Fragile x Syndrome represents one of the most common inherited disorders causing GDD and merits special diagnostic attention and counselling. Updated information is available in this issue.

As discussions are currently focussed on paediatric applications for children with unexplained developmental delay and disabilities, ID and Autism, it is important for the primary care paediatricians to work with the clinical geneticist in tandem. There is now an effort of pooling genetic reports and standardizing reports and cataloguing by the International Standards Cytogenomic Arrays Consortium (www.isca.consortium.org)

Happy reading,

Dr. Shabina Ahmed MD, FIAP

National Chairperson

Neurodevelopmental Pediatrics Chapter of IAP





Snippets from the Secretary

**“Optimism is the faith that leads to achievement.
Nothing can be done without hope and confidence.”**

- Helen Keller



Dear seniors and friends,

Hope this issue of newsletter find you all and your families in good health. July month has seen UNLOCK 2.0 in the country with further relaxation in various areas by the government. We have seen the maximum increase in the number of COVID cases in the last one month with the figure inching closer to 16 lakhs. We are now approaching UNLOCK 3.0 in August and we will see some more relaxation in the lockdown curbs. Yet, the pandemic shows no hints of slowing down in the times to come and we pray for the safety and well being of all friends and their families as well as our young patients. The only thing which seems to be working in this pandemic is social distancing, wearing masks and hand hygiene.

The month of July has many important days which are celebrated world over. World Fragile X awareness day is celebrated on 22 July every day since 2000. The last 20 years has seen increased awareness about the syndrome in the medical community and lots of research in the field which is now translating into practice thereby improving the life of the affected persons. National Parents day is celebrated on the 4th sunday of July every year and this year it was on 26 July. The last four months have been extremely difficult for children with neurodevelopmental disorders and their families. Parents form the most important part of a child's environment and their actions and behaviour has a long-lasting impact on the child.

DIAP through its webinars has kept the academic momentum going for the IAP members as well as students and families in these difficult times. The chapter members have conducted a number of webinars which figure in the month in pics section of the newsletter. the chapter looks forward to more academic association with the DIAP with an aim to increase the awareness of the subject among general pediatricians.

“There is no way to be a perfect mother and a million ways to be a good one.”

- Jill Churchill

Jai Hind!

Wg Cdr (Dr) KS Multani

National Secretary

IAP Chapter of Neurodevelopmental Paediatrics



Homage to the Doctor of the Doctors' Day

Dr. BC Roy – An Enigma

Anjan Bhattacharya

Introduction

“If you are going to be a doctor, you must aspire to be one like the great Dr. BC Roy!” Almost all my batchmates in the Medical College had to grow up listening to phrases of similar kind from our families, relatives and neighbors! There was no getting away from the great Dr. BC Roy!

It was indeed a pleasurable pursuit! Because, many of us actually idolized him too!! Some were irritated by the constancy of his shadow for us to chase! Let us look at his life and work to find out why he is so omnipresent in our psyche.

Who is he?

He was born in 1882 and left abode on 1962, both on the same day, July the 1st. In his lifetime, he left such deep marks in his life and profession that his date of birth (and demise) has been immortalized in India as our National Doctors' Day!

He was a prolific medical graduate, who is one of those rare achievers, who was conferred his Membership of the Royal College of Physicians as well as the Surgeons of the UK simultaneously! He also obtained the DSc (see later) apart from his basic MBBS (which was a rare feat in his times though) before that.

He was a freedom fighter. In those days, deserving and merit based accomplished personalities ruled Bengal. Dr. BC Roy received an iconic status

due to his miraculous diagnoses, catapulting him in to folklores before he was conferred the responsibility of West Bengal state as the Chief Minister in 1948. He received the highest civil honors of the country, Bharat Ratna in 1961 since he was dubbed as the architect of a prosperous and forward looking Bengal in his times. He did not live long after that. But many feel that his legacy of creation of Growth Centers sustained Bengal for quite some time, despite of the rapid decline following his departure from the world.

His legacy as a doctor continues to inspire doctors and medical students even today.

What are his interesting stories?

He might have been an Engineer instead, since initially he qualified from the famous Presidency College in Mathematics and qualified to join Bengal Engineering College as well as medicine. He chose medicine. In the Calcutta Medical College, he came across a phrase “Whatever thy hands findeth to do, do it with thy might.” He followed this axiom to the hilt through out his life!

When he went to England, he applied to St Bartholomew's Hospital since it was a dream in his times. But the Dean had difficulties in accepting an Asian in such a prestigious institution. This could not dishearten young Bidhan (his full name is Bidhan Chandra). He kept applying and getting rejected but never dejected.



Would you believe, that he kept asking and succeeded after 30 such applications?

He made his Dean proud by completing his post graduation in only 2 year 3 months, obtaining degrees from both Royal Colleges at the same time, returning back to West Bengal in 1911.

In 1942, Rangoon fell to Japanese bombing and caused an exodus from Calcutta fearing a Japanese invasion. Dr. Roy was serving as the Vice-Chancellor of the University of Calcutta. He acquired air-raid shelters for schools and college students to have their classes in, and provided relief for students, teachers and employees alike. In recognition for his efforts, the Doctorate of Science was conferred upon him in 1944. In 4 years time, he will become the Chief Minister of the State.

His life and our learning!

Dr. Roy entered politics in 1925. He ran for elections from the Barrackpore Constituency as an independent candidate for the Bengal Legislative Council and defeated the “Grand Old Man of Bengal,” Surendranath Banerjee.

However, he believed Independence would remain a dream unless the people were healthy and strong in mind and body.

Before going to England, the partition of Bengal was announced while Bidhan was in college. Opposition to the partition was being organised by nationalist leaders like Lala Lajpat Rai, Tilak and Bipin Chandra Pal. Bidhan resisted the immense pull of the movement. He controlled his emotions and concentrated on his studies, realising that he could serve his nation better by qualifying in his profession first.

Following his return from England after post-graduation, he taught at the Calcutta Medical

College, and later at the Campbell Medical School and the Carmichael Medical College.

Young and with full vigor of life, he joined the ‘Swaraj’ movement for Independence as well when he returned from England.

He exhibited immense dedication and hard work, both in politics and medicine and would even serve as a nurse when necessary. In his free time he practised privately, charging a nominal fee, which he continued till his death.

Due to his extraordinary medical aptitude, he became the doctor for Mahatma Gandhi. It is Gandhi, who insisted that he took responsibilities of West Bengal, for Bidhan wanted to concentrate in his life as a doctor only. But, he could not refuse Gandhi and relented.

Gandhi wanted him because, right after partition, newly formed West Bengal was in a complete mess! There were deluges of communal violence, shortage of food, unemployment and a large flow of refugees across the border.

Congress experienced Roy’s capabilities already! He served as the Alderman of the Corporation from 1930–31 and as the Mayor of Calcutta from 1931 to 1933. Under him, the Corporation made leaps in the expansion of free education, free medical aid, better roads, improved lighting, and water supply. He was responsible for setting up a framework for dispensing grant-in-aid to hospitals and charitable dispensaries.

He took over the rein in 1948 and brought unity and discipline among the party ranks. He then systematically and calmly began to work on the immense task in front of him. Within three years law and order was returned to Bengal without compromising the dignity and status of his administration. He told the people: “We have the ability and if, with faith in our future,



we exert ourselves with determination, nothing, I am sure, no obstacles, however formidable or insurmountable they may appear at present, can stop our progress... (if we) all work unitedly, keeping our vision clear and with a firm grasp of our problems.”

He was the one to establish the Indian Medical Association in 1928 and even the Medical Council of India of which he was the first president, between 1939 and 1945. He also played a crucial role in establishing the Indian Institute of Mental Health, the Infectious Disease Hospital and even Kolkata's first-ever postgraduate medical college, PG Hospital.

He played an important role in the establishment of the Jadavpur T.B. Hospital, Chittaranjan Seva Sadan, Kamala Nehru Memorial Hospital, Victoria Institution (college), and Chittaranjan Cancer Hospital. The Chittaranjan Seva Sadan for women and children was opened in 1926. Women were unwilling to come to the hospital initially, but thanks to Dr. Roy and his team's hard work, the Seva Sadan was embraced by women of all classes and communities. He opened a center for training women in nursing and social work.

In its obituary, the British Medical Journal described Roy as the “first medical consultant in the subcontinent of India, who towered over his contemporaries in several fields”. It also said, “... at his professional zenith he may have had the largest consulting practice in the world, news of his visit to a city or even railway station bringing forth hordes of would-be patients.”

Bidhan Roy is often considered the Maker of Modern West Bengal due to his key role in the founding of several institutions and five eminent cities, Durgapur, Kalyani, Bidhannagar, Ashokenagar and Habra.

Rumor has it that he named Kalyani for his unrelinquished love for Kalyani Sarkar, the daughter of another famous and senior doctor from West Bengal, Dr. Nil Ratan Sarkar (The NRS Hospital is named after him). According to folklore, young Bidhan asked for Kalyani from her father when Bidhan was still a struggling doctor and Dr. Sarkar was already a prolific and iconic figure. Apparently, Dr. Sarkar sent Bidhan away as Bidhan was, according to him, undeserving candidate. This might have fired Bidhan up, to pursue career in the UK and return prolific himself. But, unfortunately (and may be because of Kalyani's unfulfilled feelings for Bidhan), Kalyani took her life away, before Bidhan could return and ask for her hand. Bidhan remained unmarried without a blemish ever since, but commemorated the love and inspiration of his life in the township of Kalyani, which is still one of the upgraded suburbs of West Bengal. This was however, never verified!

One interesting trivia is, like his dates of birth and death, his predecessor and successors, as the Chief Ministers of West Bengal, were both called Prafulla Chandra, one Ghosh and another Sen, respectively!

Looking for trivia on the illuminous personality, I asked my famous contemporary novelist friend Dr. Soumya Bhattacharya, who is also my colleague as a Consultant Haematologist in the tertiary referral hospital in Kolkata, a MRCP, MD and also an illustrious Tagore singer with a Music degree and he came up with the following. I would love to conclude with his contribution on this lighter and subtle note of humor and irony, showing the benevolent side of the legend:

The Doctor and the writer

Now Late Sibram Chakraborty was a poor



indigent Bengali writer and Dr, Bidhan Roy was by then both a legendary physician and a prominent Congress leader. This was Calcutta in early 1930s. Sibram resolved to approach Dr. Bidhan Roy for some economic help but how to approach the great man ? The easiest way Sibram figured out was to get an appointment as a patient by concocting an illness. But how to fool a legendary diagnostician like Dr. Roy ?

Sibram duly got an appointment and met Dr. Roy. A stickler for faces Dr. Roy could instantly identify him. The conversation went something like this.

Dr. Roy – Yes, I know you. You were one of the Congress volunteers ?

Sibram – Yes, Sir.

Dr. Roy – What is your problem?

Sibram (with a grimace) – Constipation, Sir.

Dr. Roy – Oh! That means you are not digesting your food properly. OK. Have this syrup and take it daily with milk.

Dr. Roy handed over some Physician's samples to Sibram.

Sibram – I can't afford milk, Sir

Dr. Roy – Then take it with water. It will work.

Sibram again went to Dr. Roy after a few days.

Dr. Roy – Did my medicine work?

Sibram – No sir, I am still constipated.

Dr. Roy – Strange! That has never happened before. What do you do for a living?

Sibram – I am a writer Sir.

Dr. Roy – Do you earn anything for your efforts?

Sibram – Occasionally, Sir. No one wants to publish my work. Only if I publish, will I earn.

Dr. Roy - My diagnosis is made. And this is your medicine.

Dr. Roy handed Sibram a few ten rupee notes.

Dr. Roy - Eat first. You are starving. Only once you eat will your bowels move!



Fragile X - journey over last 75yrs

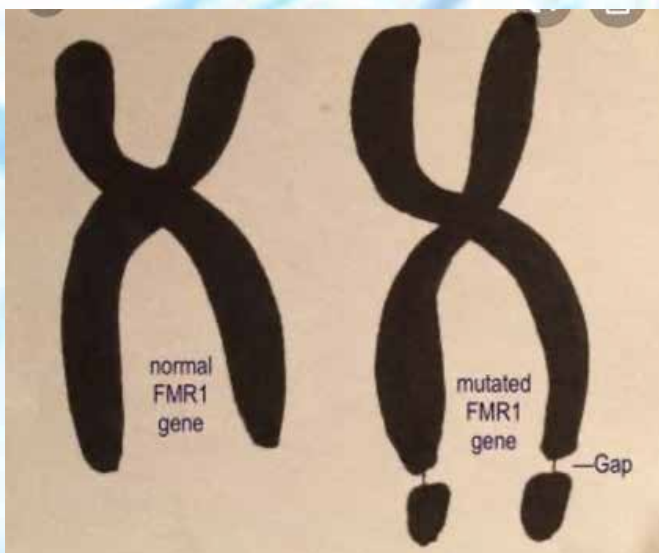
History

James Purdon Martin, a neurologist and Julia Bell, a geneticist published an article titled ' A pedigree of mental defect showing sex-linkage' wherein they described a family in which 11 mentally deficient sons were born to normally intelligent mothers in a span of two generations clearly indicating an X linked trait. The syndrome is also known as Martin - Bell syndrome.

HA Lubs published an article in the American Journal of Human Genetics in 1969 on a marker X chromosome with a secondary constriction near the end of the long arm giving the appearance of large satellites in a family having four males with moderate -severe mental retardation. The satellite site on the X chromosome (see image) was seen on other chromosomes too in some other conditions and was termed 'Fragile site' by Frederick Hecht in 1970 who, while referring to such a site on chromosome 16, "wanted to convey the concept of transmissible points of chromosome fragility in the human genome" thereby bringing the term Fragile X chromosome into use.



Photography by Juan Cristóbal Cobo





RICAUARTE : THE HOME OF LOS BOBOS - ‘the foolish ones’

Ricaurte is a small town in the Valle de Cauca province of Colombia in South America with a population of around 1500 and is home to the largest population of Fragile X cluster cases living in a single geographical area. This fact has put this small town on the world map and generated lot of interest in the scientific community involved in research in the field of Fragile X. Randi Hagerman called Ricaurte ‘the ground zero for fragile X.’ Geneticist Wilmar Saldarriaga-Gil of Universidad del Valle in Cali has been involved in the fragile X research in Ricaurte since 1997 and his research of the pedigree of two families - the Trivinos and Gordillos - of Ricaurte spanning 9 generations has led him to one name - Manuel Trivino who was an early settler in the area in 1880s and most of the fragile X cases and carriers are likely to be his descendants. these genetic studies are likely to reveal the various phenotypic variations seen in the syndrome and provide future direction to the research in the treatment of this condition. Many residents of Ricaurte have taken the difficult decision of not having more children since the time they became aware of this condition. Only 3 children with fragile X have been born here in the last decade and most of the existing cases in Ricaurte are now more than 50 yrs old.

Further reading

Unlocking the secrets of fragile X in Colombia by Hannah Furfaro



A case of Fragile X syndrome with Mild Intellectual disability with hyperactivity and Behavioural issues

Dr. Lata Bhat

Developmental and Behavioural Pediatrician

Director Palak CDC, Delhi

Lata2207@gmail.com

Male child born on 19/11/2003 in a government hospital by Normal Vaginal Delivery. He cried immediately after birth.

Examination at 1.5 years age at AIIMS hospital Delhi showed the following findings: -

Born by full term normal delivery at government hospital, cried immediately after birth. Normal neonatal period.

Development :

Neck holding – 6 months

Sitting – 8 months

Recognizing mother – 10 months

He was not standing without support

Vision normal

Hearing Normal

Mentally subnormal

Tone -Normal

DTR – Normal

Follow up was done at AIIMS hospital, Delhi

Independent walking came at -2years 3 months

Was saying only lala by 2yrs 3 months so Speech therapy was given at AIIMS

Investigations and Assessments

- 19/04/2004 at 5 months age: PCR test for Fragile X syndrome: Showed no amplification i.e. the screening test is positive
- Genetic counseling was done at AIIMS
- He was referred to at Gangaram Hospital at 2 years of age where Autism was ruled out.
- IQ done at 9 years 9 months age at IHBAS came to be 56

They showed at our center at 5 years of age with complaints of Hyperactivity and concerns about poor academic performance in school on examination there were following findings:

Long Ears

Protruding jaw

Very hyperactive

Systemic examination was normal

His speech was ok because speech therapy was being given since he was 2 years old.

So again, counselling was done about the prognosis of Fragile X syndrome and was prescribed Clonidine to control hyperactivity because they were not able to manage him. He was prescribed clonidine because the recommendation for Methylphenidate is to start after 7 years of age.



Review was done at our center at 7 years of age :

He was going to school since last 3 years

Singing Jana gana mana full song, says Ato Z, 1-50 in hindi

Toilet trained, eating on his own, dressing self partially, follows instructions,

Had temper tantrums

Lack of concentration

Very hyperactive and constantly shifting activities

Couldn't even sit to watch TV

Summary of Medications which were prescribed for him:

- At 5 years Arkamine for hyperactivity
- At 7 years inspiral started for hyperactivity
- Later Risperidone, clonazepam was started for aggressive behavior, at the age of 12 years

He was very aggressive and hyperactive. Further, he was also not sleeping well. He did well on these medicines. Later these medicines were stopped after one and half years and parents used to give these medicines off and on whenever he was very aggressive

In June 2020

He was eating excessively and was very aggressive since risperidone and clonazepam was restarted 2 months back. So, Risperidone and clonazepam was stopped and instead started Aripiprazole

Literature Review of Fragile X syndrome

It is a genetic condition that causes a range of developmental problems including learning disabilities and cognitive impairment. Usually, males are more severely affected by this disorder than females.

Affected individuals usually have delayed development of speech and language by age 2. Most males with fragile X syndrome have mild to moderate intellectual disability, while about

one-third of affected females are intellectually disabled. Children with fragile X syndrome may also have anxiety and hyperactive behavior such as fidgeting or impulsive actions. They may have attention deficit disorder (ADD), which includes an impaired ability to maintain attention and difficulty focusing on specific tasks. About one-third of individuals with fragile X syndrome have features of ASD that affect communication and social interaction. Seizures occur in about 15 percent of males and about 5 percent of females with fragile X syndrome.

Most males and about half of females with fragile X syndrome have characteristic physical features that become more apparent with age. These features include a long and narrow face, large ears, a prominent jaw and forehead, unusually flexible fingers, flat feet and in males, enlarged testicles (macroorchidism) after puberty

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Journal Scan

Increased severity of fragile X spectrum disorders in the agricultural community of Ricaurte, Colombia

Wilmar Saldarriaga, María J Salcedo-Arellano, Tatiana Rodríguez-Guerrero, Marcela Ríos, Andrés Fandiño-Losada, Julian Ramirez-Cheyne, Pamela J Lein, Flora Tassone, Randi J Hagerman

Int J Dev Neurosciences 2019 Feb;72:1-5.

Abstract

Pre-mutation carriers of the FMR1 gene (CGG repeats between 55 and 200) usually have normal intellectual abilities but approximately 20% are diagnosed with developmental problems or autism spectrum disorder. Additionally, close to 50% have psychiatric problems such as anxiety, ADHD and/or depression. The spectrum of fragile X disorders also includes Fragile-X-associated primary ovarian insufficiency (FXPOI) in female carriers and Fragile-X-associated tremor/ataxia syndrome (FXTAS) in older male and female carriers. We evaluated 25 pre-mutation carriers in the rural community of Ricaurte Colombia and documented all behavioral problems, social deficits and clinical signs of FXPOI and FXTAS as well as reviewed the medical and obstetric history. We found an increased frequency and severity of symptoms of fragile X spectrum disorders, which might be related to the vulnerability of FMR1 pre-mutation carriers to higher exposure to neurotoxic pesticides in this rural community.

New Targeted Treatments for Fragile X Syndrome

Dragana Protic, Maria J Salcedo-Arellano, Jeanne Barbara Dy, Laura A Potter, Randi J Hagerman

Curr Pediatr Rev 2019;15(4):251-258.

Abstract

Fragile X Syndrome (FXS) is the most common cause of inherited intellectual disability with prevalence rates estimated to be 1:5,000 in males and 1:8,000 in females. The increase of >200 Cytosine Guanine Guanine (CGG) repeats in the 5' untranslated region of the Fragile X Mental Retardation 1 (FMR1) gene results in transcriptional silencing on the FMR1 gene with a subsequent reduction or absence of fragile X mental retardation protein (FMRP), an RNA binding protein involved in the maturation and elimination of synapses. In addition to intellectual disability, common features of FXS are behavioral problems, autism, language deficits and atypical physical features. There are still no currently approved curative therapies for FXS, and clinical management continues to focus on symptomatic treatment of co-morbid behaviors and psychiatric problems. Here we discuss several treatments that target the neurobiological pathway abnormal in FXS. These medications are clinically available at present and the data suggest that these medications can be helpful for those with FXS.



Quiz

Dr. Arun Prasad

Jt. Sec , Neurodevelopmental Chapter of IAP

1. A 5-yr-old girl is evaluated for progressive difficulty in walking, which seems to worsen during the day; her walking is much better after a good night's sleep. Examination during the afternoon shows that she has rigidity in the leg muscles and dystonic twisting of her feet. This kind of movement disorder often responds dramatically to which of the following medications?

- a) Sodium valproate
- a) Lorazepam
- c) L-Dopa
- d) Gabapentin
- e) Lithium

2. A 5-month-old girl presents with a 1-week history of exaggerated startle movements and decreased motor and social activity. According to her parents, the child bends her head and trunk forward, extends her arms out quickly, and cries . Such actions may occur 10 to 20 times consecutively . She also is much less physically active and less interactive . Electroencephalography shows a diffuse, severely abnormal pattern (hypsarrhythmia). Of the following, the MOST effective treatment for this child is:

- a) Adrenocorticotrophic hormone
- b) Carbamazepine
- c) Phenobarbital
- d) Phenytoin
- e) Prednisone

3. You are working in the newborn nursery when the nurse asks you to evaluate a girl who has just been admitted. According to her records, her mother had good prenatal care and results of prenatal laboratory evaluations

were normal. The infant is vigorous and pink. Findings on physical examination are normal except for a reddish-purple patch over her right forehead, eyelid and cheek .Of the following, the condition that is MOST likely to be associated with this skin lesion is:

- a) Kasabach-Merritt syndrome
- b) Neurofibromatosis type 1
- c) Osler-Weber-Rendu disease
- d) Sturge-Weber syndrome
- e) Tuberous sclerosis complex

4. Which of the following is a form of child abuse that is known to cause intellectual disability?

- A. Shaken baby Syndrome
- B. Abused Child Syndrome
- C. Battered baby Syndrome
- D. Damaged infant Syndrome

5. You care for a 5-year-old girl who recently received a diagnosis of neurofibromatosis type 1 (NF1). Her parents tell you that they have read that NF1 is associated with an increased risk for cancers, and they ask you for more information. Of the following, the MOST accurate statement regarding cancers associated with NF1 is that:

- a) Leukaemia is an unlikely cancer type
- b) Lisch nodules predispose to tumors of the eye
- c) Optic glioma most commonly presents at the onset of puberty
- d) Pheochromocytoma is common in early childhood
- e) Plexiform neurofibromas may show malignant transformation



Quiz

6. Prenatal diagnosis of neural tube defect may be accomplished by:

- a) Fetal karyotyping.
- b) Estimation of amniotic fluid alpha-fetoprotein.
- c) Assay of amniotic fluid acetylcholinesterase.
- d) High resolution ultrasound.
- e) Estimation of amniotic fluid cholesterol.

7. Complete third nerve palsy causes:

- a) Ptosis
- b) Divergent squint
- c) Constrictive pupil
- d) Loss of corneal reflex
- e) Decreased sweating

8. In learning disabilities, the name for mathematical disorder is:

- a) Dyspraxia
- b) Dyslexia
- c) Dyscalculia
- d) Dysphasia

9. Which of the following is NOT a physical cause often associated with Phonological disorder?

- a) A hearing impairment
- b) Cleft palate
- c) Small frontal lobes
- d) Cerebral palsy

10. Stuttering is a disturbance in the normal fluency and time patterning of speech that is inappropriate for the individual's age. It involves which of the following?

- a) Frequent repetitions or prolongation of sounds
- b) Pauses within words
- c) Filled or unfilled pauses in speech
- d) All of the above

Please send answers to lata2207@gmail.com / Kawaljit000@gmail.com before 25 August 2020. Correct answer will be published in next issue

Answers - JUNE

- 1. 3 Carbamazepine
- 2. 2 Periventricular Leukomalacia
- 3. 3 Rett Syndrome
- 4. 2 Conversion disorder
- 5. 2 Autistic disorder
- 6. Sorry the question is except : meningococcal meningitis
- 7. 2 Rigid jaw muscles
- 8. 3 50 - 55
- 9. 1 anoxia
- 10. 3 Echolalia
- 11. 4 Savant Syndrome

Winners

Dr. Fatima Shirly Anitha, Fellow in developmental Pediatrics, at SRMC, Chennai

Dr. Nirali Thakker Lohiya, Consultant Developmental & Behavioral Pediatrician, D.Y. Patil Medical College, Pune



Month in pics



Webex Meetings

Meeting ID : 166 894 8522
Password : 11thjuly

LIVE

Neuro Developmental follow up for NICU Graduates

Moderator



Prof (Dr) S Sitaraman

Ex.HOD & Head of Neuro Developmental Division, Department of Paediatrics, SMS MEDICAL COLLEGE, JAIPUR, RAJASTHAN.



11th July'2020
Saturday



Time
7.00 PM - 8.30 PM

Host by
Brio Bliss Life Science Pvt. Ltd.
Makers of
CogniCare™



Speaker

Dr Rhishikesh Thakre, MD (Paediatrics),DM(Neonatology).

Neonatologist & Paediatrician NEO CLINIC, Aurangabad , Maharashtra



Speaker

Dr Shambhavi Seth, Sr. Consultant Developmental Paediatrician.

Max Hospital, Saket & Gurgaon BLK Super Speciality Hospital, Bright Begining CDC, New Delhi.



Speaker

Dr Arijit Chattopadhyay, DCH, MD, MRCP, MRCPPH, CCST (Pead Neuro). Paediatric Neurologist

Apollo Gleneagles Hospital, Kolkata.



Speaker

Dr Chhaya Prasad, Sr. Consultant Paediatrician.

Developmental & Behavioral Pediatrician PG Diploma in Developmental Neurology Trained- Bayley BSID, DASII, Ped Neurodisability NHS Foundation UK, Director ASHA, Centre for Autism & IDD Chandigarh.

Please click the link below to join the webinar

<https://briobliss.webex.com/briobliss/j.php?MTID=m52f996c77a7f7b26cc16a7aeeee3bc01>

For any query please whatsapp 94340 30943





Month in pics



बच्चों तथा किशोरों का आहार और मस्तिष्क विकास NUTRITION & BRAIN DEVELOPMENT IN CHILDREN & ADOLESCENTS

Join us for a lively discussion with

Dr. Pooja Talikoti

Field Prof & Head
Home Science (Food & Nutrition)
Bengaluru

Dr. Arun Prasad

Pediatrician, Paediatrics
Prof. Cardiac Neurology
Chandigarh



Go to diapindia.org/event-calendar or [click here](#)

Date | 26th June (Every Friday)

Time | 8pm to 9pm

Write your questions on
iap_parents@iapindia.org

If you are not able to view on the above link, [please click here](#)



Moderators



Dr. Shekhar Dabhadkar



Dr. Swati Ghate

With warm regards,

DR BAKUL JAYANT PAREKH

DR GV BASAVARAJ



Month in pics

PEDIATRICIANS - DON'T WASH YOUR HANDS OFF THE STUDENTS STRUGGLING WITH SCHOLASTIC PERFORMANCE & DYSLEXIA! THEY NEED YOUR SUPPORT!



DEAR MEMBERS,
GREETINGS FROM IAP!

Join us for a very enriching discussion on **Academic Under Achievers, School Readiness Skills And Learning Disabilities.**

Dr Samir Hassan Dalwai in discussion with our esteemed panel of experts- **Dr Geeta Patil, Dr Chhaya Sambharya Prasad & Dr Chitra Sankar**

This webcast is brought to you under dIAP, an initiative of IAP to facilitate e-learning in all spheres of pediatrics. Live webcast of the webinar discussions, on-line clinics and their subsequent archiving is one of the activities under this banner.

With warm regards
DR BAKUL JAYANT PAREKH
DR GV BASAVARAJ

DATE | **THURSDAY, APRIL 30**
TIME | **1.30 PM TO 3.30 PM**

Go to diapindia.org/event-calendar or click the link below



Month in pics



dIAP

किशोरवयीन बालिका : समस्याए और समाधान।

GROWING CHALLENGES IN GIRL CHILD

Join us for a lively discussion with,

Dr. Geeta Patil

Consultant Pediatrician,
Adolescent Councillor
Bangalore



Dr. Chhaya Prasad

Consultant Pediatrician,
Adolescent Mental
Health Expert



Dr. Rakesh Bhardwaj

Consultant Pediatrician,
Adolescent Health,
MBBS (Gold Medalist)



Date

Today, 4th May

Time

8pm to 9pm

Join on YouTube Live:

<https://bit.ly/2JT2ihN>



Moderators



**Dr. Shekhar
Dabhadkar**



**Dr. Upendra
Kinjawadekar**

With warm regards,

DR BAKUL JAYANT PAREKH

DR GV BASAVARAJ



Month in pics



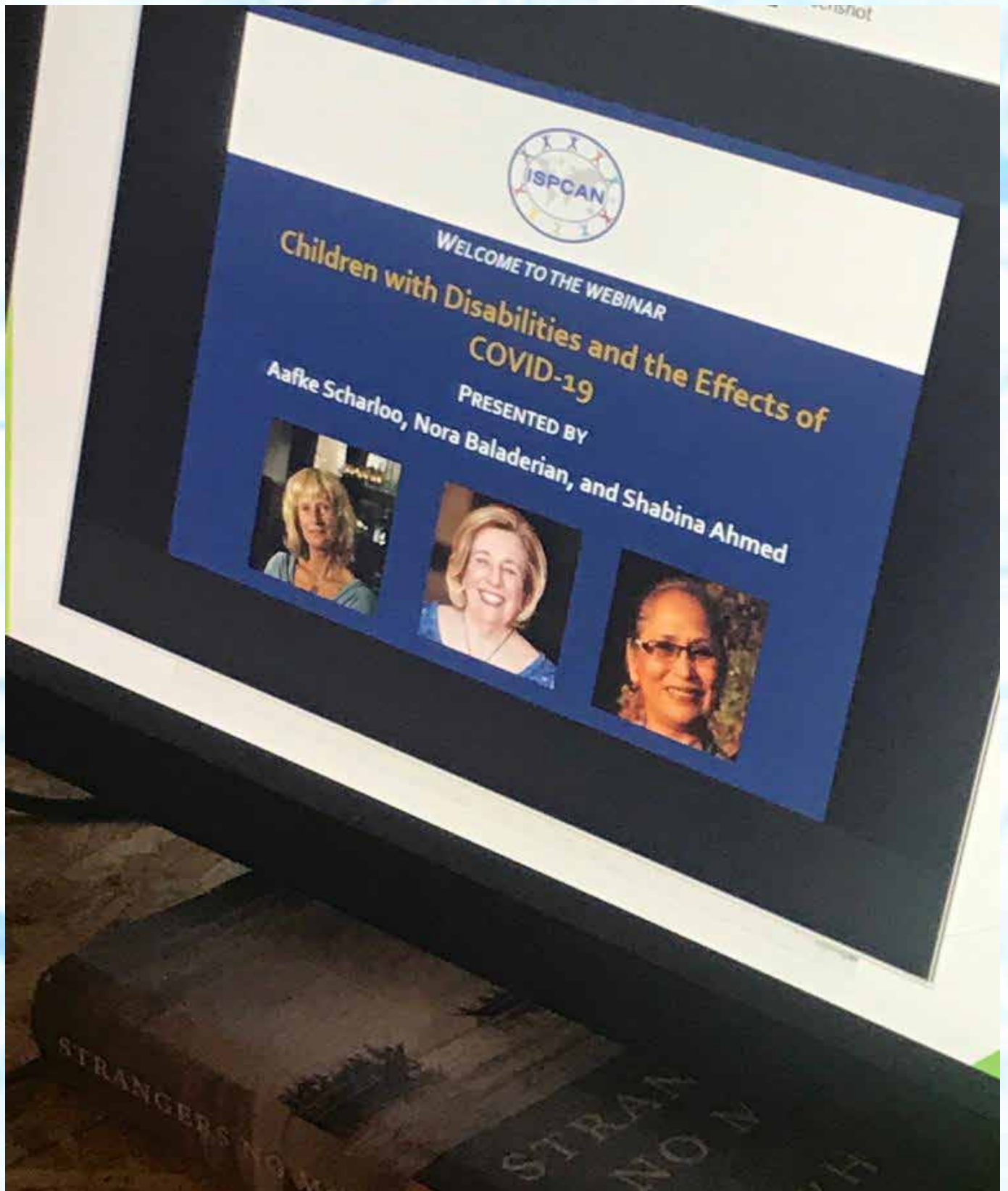
Children with Disabilities and the Effects of COVID-19 Wednesday, July 15, 2020

The webinar was organised by International Society of Prevention of Child Abuse and Neglect (ISPCAN) wherein Dr Shabina Ahmed, National Chairperson of Neurodevelopmental Chapter discussed the Non-pharmaceutical management of COVID 19 and the methods of communicating social distancing to children of disabilities. Along with Dr Baladerian, Psychologist and therapist from USA and Aafke Scherloo, Psychologist from Netherlands.

The webinar reached 478 registered participants from 75 countries.



Month in pics





Month in pics



Fragile X Society - India



INSIGHT INTO AUTISM AND FRAGILE - X

speakers



SHALINI N. KEDIA

Founder and Chairperson of Fragile X Society



DR. SAMIR HASAN DALWAI

MD, DCH, DHD, FCPA, FIAP, LIS
Developmental Behavioural Pediatrician,
New Horizons Child Development Centre



DR. MITESH SHETTY

HOD and Consultant,
Dept of Medical Genetics, Mungat Hospital
Faculty for Certificate course in Genetic Counseling,
affiliated by Manipal Academy of Higher Education

moderators



SHREYA NAMJOSHI

National Co-Convenor



RISHI DHAMECHA

National Tech Team

**JULY 22
6 PM ON**

facebook
LIVE



Month in pics

Webinar on Autism with IAP South Delhi Branch on 2nd July 2020



Webex Meetings

Meeting ID : 166 106 4257
Password : SZwigfZu843
Host key : 448800

LIVE

Red flags in Autism - to pickup in a busy Paediatric Clinic



2nd July'2020
Thursday



Time
8.30 PM - 9.30 PM



Moderators

Dr Manu Agarwal, Senior Consultant Paediatrician
Paediatric Endocrinologist at Max and Sitaram Hospital.
Residing in Vasant kunj.



Speaker

Dr Lata Bhat,
Senior Consultant Developmental Paediatrician
Indraprastha Apollo Hospital, Delhi and Director,
Palak Child Development centre, Delhi.
State Coordinator Neuro Developmental Chapter of IAP
Chief Editor e-Journal Development Paediatrics Today

Please click the link below to join the webinar
<https://briobliss.webex.com/briobliss/j.php?MTID=m5cec2dfb353a2734cd0de94f647133e7>

Host by
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**INDIAN ACADEMY OF PEDIATRICS
CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS**

IAP FELLOWSHIP IN DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS 2019-20

Under the aegis of Indian Academy of Pediatrics

List of IAP Accredited Child Development Centre's / Institutes 2020-2021

| S. No | Name of the Institute | Course Coordinator | E-Mail | Number of Seats | City/ State |
|-------|--|--|--|-----------------|--------------------|
| 1. | Child Development Centre Medical College Campus Trivandrum - 695011 | Dr. Babu George Director, 0471-2553540 | dir@cdckerala.org cdckerala@rediffmail.com | 2 | Trivandrum, Kerala |
| 2. | NIMS-Spectrum-Child Development Research Centre, NIMS Medicity Campus, Aralumood the Neyyattinkara, Thiruvananthapuram, Kerala - 695123 | Prof MKC Nair Director, Chief Consultant in Developmental Medicine 9447121689 | cdcmkc@gmail.com | 2 | Trivandrum, Kerala |
| 3. | Child Development Centre, Pushpagiri Medical College, MC Road, Thiruvalla, Kerala- 689101 | Dr. Manju George 9961137357 +91 4692700755 | mysticmanju@rediffmail.com info@pushpagiri.in | 2 | Thiruvalla, Kerala |

| S No. | Name of the Institute | Course Coordinator | E- Mail Address | Number of Seats | City /State |
|-------|--|---|--|-----------------|---------------------|
| 1. | New Horizons Child Development Centre, Saira Mansion, Pahadi School, Road No. 2, Aarey Road, Goregaon (East) Mumbai - 400063 | Dr. Samir Dalwai Founder - Director 9820026503 | samyrdalwai@gmail.com | 1 | Mumbai, Maharashtra |
| 2. | New Horizons Child Development Centre, 1st Floor, Jeevak Nursing Home, Sai Kung, MMSG Marg Dadar (East), Mumbai - 400014 | Dr. Samir Dalwai Founder - Director 9820026503 | samyrdalwai@gmail.com | 1 | Mumbai, Maharashtra |
| 3. | Ummeed Child Development Centre, 1-B, 1/62, Ground Floor, Mantri Pride, N.M. Joshi Marg, Lower Parel, Mumbai, Maharashtra | Dr. Roopa Srinivasan 9930495210 | roopa.srinivasan@ummeed.org | 1 | Mumbai, Maharashtra |
| 4. | Dept. of Pediatrics Bharati Vidyapeeth Medical College & Hospital, Katraj, Pune - 411043 | Dr. Leena Shrivastava 020-24375541, 9822792826 | bharatiped@rediffmail.com leena.sri2012@gmail.com | 1 | Pune, Maharashtra |
| 5. | Sethu Centre for Child Development & Family Guidance, 640/2, Bhutkivaddo, Succorro Porvorim, Bardez, Goa - 403501 Ph: (0832) 6513749 | Dr. Nandita D Souza 0832- 6513749 9422634356 | nandita@sethu.in reachus@sethu.in | 1 | Goa, Maharashtra |



| S No. | Name of the Institute | Course Coordinator | E Mail | Number of seats | City/ State |
|-------|---|--|--|-----------------|--------------------------|
| 1. | Developmental Pediatrics Unit, Christian Medical College, Vellore, Tamil Nadu-PIN 632004 | Dr. Samuel Philip Oommen 9442039476 | devpaed@cmcvellore.ac.in | 2 | Vellore, Tamil Nadu |
| 2. | Karthikeyan Child Development Unit, Department of Pediatrics, Shri Ramachandra Medical College, No. 1, Ramachandra Nagar, Porur, Chennai, Tamil Nadu, -600116 | Dr. Udayakumar 9840113030 | drnuday@gmail.com ramachandran_dr@rediffmail.com | 1 | Chennai, Tamil Nadu |
| 1. | Saveetha, Child Development Centre, 1st floor, Saveetha Medical College, Saveetha Nagar, Thandalam, District Kancheepuram. Tamil Nadu | Dr. Lal Devayani Vasudevan Nair 7299938038 044-6726616 | drlaldev@gmail.com | 1 | Kancheepuram, Tamil Nadu |

| S No. | Name of the Institute | Course Coordinator | E Mail | Number of seats | City/ State |
|-------|---|--|--|-----------------|----------------------|
| 1. | Centre for Child Development & Disabilities, No. 6, Chitrapur Bhavan, 8th Main, 15th Cross, Malleshwaram, Bangalore - 560003 | Dr. Nandini Mundkur 9845347740 | ccddnandini@gmail.com nandinimundkur@gmail.com | 1 | Bangalore, Karnataka |
| 2. | Unit of Hope for Children with Special Needs St. John's National Academy of Health Sciences; St. John's Medical College Hospital, Sarajpur Road, Bangalore -560034 | DR MARIA LEWIN 9886081976 +918022065000 +918025530724 | maria.lewin@stjohns.in sjmchadmin.office@stjohns.in www.stjohns.in | 1 | Bangalore, Karnataka |
| 3. | Pediatric Neurodevelopment Services, | Dr Sanjay KS Phone | drsanjay.ks@gmail.com ihealth@yahoo.in ambikaudupa89@gmail.com | 1 | Bangalore, Karnataka |
| | Indira Gandhi Institute of Child Health, Govt of Karnataka Autonomous Institute, South Hospital Complex, Dharmaram College Post, Bengaluru- 560029 - Karnataka | 9739065215 +91080 26655022 | | | |

| S No. | Name of the Institute | Course Coordinator | E Mail | Number of seats | City/ State |
|-------|---|---------------------------------|--|-----------------|-------------|
| 1. | Child Development Centre, Sir Ganga Ram Hospital, Rajinder Nagar, New Delhi -110060 | Dr. Praveen Suman 9811244200 | praveensuman@gmail.com | 1 | New Delhi |

National Chairperson – IAP Chapter of Neuro developmental Pediatrics – Dr Shabina Ahmed
National Secretary – IAP Chapter of Neuro developmental Pediatrics - Wing Commander Dr Kawaljit Singh Multani

GOVERNING COUNCIL TEAM IAP FELLOWSHIP IN DEV & BEH PEDIATRICS

Dr. SS Kamath – Chairperson Advisory Committee
Dr. Abraham Paul – Chairperson Accreditation & Inspection Committee
Dr. Jeeson Unni – Co Chairperson Accreditation & Inspection Committee
Dr. Samir Dalwai – Chairperson Academic Committee
Dr Chhaya Sambharya Prasad – National Coordinator, IAP Fellowship in Dev & Beh Pediatrics

IAP Chapter of Neuro Developmental Pediatrics
Indian Academy of Pediatrics



IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS



Admissions for Academic Year 2020-2021

IAP Fellowship in Developmental and Behavioral Pediatrics Under the aegis of Indian Academy of Pediatrics

The IAP Chapter of Neuro developmental Pediatrics, under the aegis of Indian Academy of Pediatrics announces admission to the course -IAP Fellowship in Developmental and Behavioral Pediatrics- for qualified pediatricians. The one year Fellowship Academic program has been designed for pediatricians who are yearning to learn more about Neuro developmental Disorders, Developmental Assessments, Early Identification, Diagnosis, Interventions, Pharmacotherapy, Behavior Management, Psychological Interventions, Multidisciplinary Rehabilitation, Educational Remediations for children and adolescents with developmental and behavioral disorders.

Last date to apply: 15TH August 2020

How to apply: Please download Application form from the website www.iapndp.org

Please send the application form, and DD with Application fees to the respective course coordinator of the child development center / institute the candidate wishes to apply at.

| Name of the Course | Duration | Eligibility | Annual Fees | Last Date to Apply | Interviews |
|---|----------|--------------|--------------|------------------------------|---|
| IAP Fellowship in Developmental & Behavioral Pediatrics | One Year | MD/ DCH/ DNB | INR 85,000/- | 15 th August 2020 | Between 15 th to 30 th August 2020 Online – at Individual Institutes |

Details of Application, Eligibility Criteria, List of Documents required, List of IAP Accredited Institutes and other details can be obtained from the website www.iapndp.org-

For Further enquires Contact:

| |
|--|
| Dr. Jeeson Unni |
| Co – Chairperson, Accreditation Committee, IAP Fellowship Governing Council |
| 04842315718, 9847245207 jeeson1955@gmail.com |

| | |
|---|---|
| Dr. Shabina Ahmed | Dr Kawaljit Singh Multani |
| National Chairperson, IAP NDP | National Secretary, IAP NDP |
| 7399018530 shabinaloveschildren@gmail.com | 8472087960 kawaljit000@gmail.com |

| |
|---|
| Dr. Chhaya Sambharya Prasad |
| National Coordinator, IAP Fellowship in Developmental and Behavioral Pediatrics, IAP NDP |
| 9356108559, 8146558559 chhaya_sam@yahoo.co.in |

GOVERNING COUNCIL IAP FELLOWSHIP IN DEV & BEH PEDIATRICS

- Dr SS Kamath – Chairperson Advisory Committee
- Dr Abraham Paul – Chairperson Accreditation & Inspection Committee
- Dr Jeeson Unni – Co Chairperson Accreditation & Inspection Committee
- Dr Samir Dalwai – Chairperson Academic Committee
- Dr Chhaya Prasad – National Coordinator, IAP Fellowship in Developmental & Behavioral Pediatrics

IAP CHAPTER OF NEURO DEVELOPMENTAL PEDIATRICS 2020

